# SOUTHEAST SUPPLY ENHANCEMENT PROJECT – EDEN LOOP – VA PORTION and COMPRESSOR STATION 165

Pittsylvania County, Virginia

WSSI # P.WSI0000778

## Waters of the U.S. (Including Wetlands) Delineation

September 16, 2024
Updated April 22, 2025 and June 11, 2025

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# Waters of the U.S. (Including Wetlands) Delineation

## Southeast Supply Enhancement Project – Eden Loop – VA Portion and Compressor Station 165 (±1,633 acres) WSSI # P.WSI0000778

## Introduction

Wetland Studies and Solutions, Inc. (WSSI) has determined the boundaries of the wetlands and other waters of the U.S. (WOTUS, i.e., streams and ponds) on the Virginia portion of the Southeast Supply Enhancement Project – Eden Loop (SSE) survey area, which includes Compressor Station 165. As discussed in this report, wetlands and other WOTUS are present within the survey area including ephemeral, intermittent, and perennial tributaries to Sandy River, Hardys Creek, Trayner Branch, Sandy Creek, Banister River, White Oak Creek, Trotters Creek, Cherrystone Creek, and Little Cherrystone Creek. Other WOTUS found within the Virginia portion of the survey area include palustrine forested (PFO), palustrine scrub-shrub (PSS), and palustrine emergent (PEM) wetlands as well as open water ponds (POW) associated with the above-mentioned waterbodies. Our findings are depicted (as a surveyed map) on the updated Waters of the U.S. (Including Wetlands) Delineation Maps (Attachment I) and are discussed briefly below.

This report and associated mapping have been updated to incorporate survey area revisions and agency comments. On November 19-21, 2024, the Virginia Department of Environmental Quality (DEQ) conducted field site visits with WSSI staff as part of the State Surface Water Determination (SSWD) request. Additionally, on February 26 and 27, 2025, the U.S. Army Corps of Engineers (COE) and DEQ conducted joint field site visits with WSSI staff as part of the Preliminary Jurisdictional Determination (PJD) and SSWD requests. Additional updates have been incorporated based on DEQ's December 06, 2024, and May 23, 2025, SSWD (No. 000214) Comment Letter and Additional Information Requests. The results of the agency site visits and the SSWD comment letters are summarized in Exhibit 15.

## Project Location

The survey area extends from the Virginia/North Carolina border near the Berry Hill Road (U.S. Hwy 311)/Buffalo Road intersection to north of the Transco Pipeline compressor station (Compressor Station 165) located on Transco Road (U.S. Route 692) in Pittsylvania County, Virginia. Exhibit 1 is a vicinity map depicting the updated survey area's approximate boundaries and general location. Note that WSSI only delineated the portion of Eden Loop located in Virginia. The surrounding land use comprises residential properties, farms, forests, paved and unpaved roads, and a landfill.

## Methodology

This wetland delineation was performed pursuant to the "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1 (1987 Manual) and subsequent guidance, and modified by the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region,* Version 2.0 dated April 2012 (EMP Manual). Because the survey area consists of a linear corridor, transects were not established, and the survey area was systematically searched for jurisdictional wetlands and other WOTUS. The wetland delineation was performed in the field utilizing the three-parameter approach (hydrophytic vegetation, hydric soils, and wetland hydrology) as set forth in the 1987 Manual and streams were delineated at their ordinary high water mark (OHWM). The following paragraphs provide additional general information as outlined in the EMP Manual regarding the wetland parameters that were investigated in the field:

1. Hydrophytic Vegetation:

   Hydrophytic vegetation occurs where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. Under normal circumstances, vegetation is hydrophytic when the plant community is dominated by species that have a wetland indicator status of facultative (FAC) or wetter, which indicates they can tolerate prolonged inundation or soil saturation during the growing season.

   Per the U.S. Army Corps of Engineers Engineer Research and Development Center's *National Wetland Plant List Indicator Rating Definitions* dated July 2012[1], the following definitions represent the short version of the wetland indicator status ratings. These short definitions represent the longer version, which is more descriptive and includes examples of plant species from various habitats; however, the short version is applicable for "daily" use.

   - OBL (Obligate Wetland Plants) – Almost always occur in wetlands.
   - FACW (Facultative Wetland Plants) – Usually occur in wetlands, but may occur in non-wetlands.
   - FAC (Facultative Wetland Plants) – Occur in wetlands and non-wetlands.
   - FACU (Facultative Upland Plants) – Usually occur in non-wetlands, but may occur in wetlands
   - UPL (Upland Plants) – Almost never occur in wetlands.

[1] *Lichvar R.W., N.C. Melvin, M.L. Butterwick, and W.N. Kirchner. 2012. National Wetland Plant List Indicator Rating Definitions. ERDC/CRREL TN-12-1. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory*

2. Hydric Soils:

The National Technical Committee for Hydric Soils (NTCHS) defines a hydric soil as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part.[2] Soil color can reflect the long-term effect of anaerobic conditions due to saturated soil conditions and is one of the more common factors used to determine whether or not a soil is hydric. Soil color is determined in the field by the Munsell Soil Chart. Other field evidence of hydric soil includes sulfidic odor, accumulation of organic material, and concretions (or localized concentrations) of iron and/or manganese oxides at or near the soil surface.

3. Hydrology:

According to the 1987 Manual, wetland hydrology encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively. Such characteristics are usually present in areas that are inundated or have soils that are saturated to the surface for sufficient duration to develop hydric soils and support vegetation typically adapted for life in periodically anaerobic soil conditions.

As stated in the EMP Manual, hydrology indicators are evidence that a site has a continuous wetland hydrologic regime; however, they are often the most transitory of the wetland indicators. Seasonal, temporary, and long-term weather conditions can have a direct impact on field observations. Additionally, hydrology indicators may be impacted by natural processes or human activities.

Wetland hydrology indicators are divided into two categories, primary and secondary, and are based on the level of reliability in the region. One primary indicator is sufficient to assume the presence of wetland hydrology. Without a primary indicator, two or more secondary indicators are required to meet the wetland hydrology parameter. Examples of primary indicators of wetland hydrology include but are not limited to visual observation of inundation or soil saturation within major portions of the root zone (usually within 12 inches of the surface) during the growing season, water marks, sediment deposits, and oxidized rhizospheres along living roots. Examples of secondary indicators of wetland

[2] https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/soil/national-technical-committee-for-hydric-soils

hydrology include but are not limited to drainage patterns, FAC-neutral test, surface cracks, and sparsely vegetated concave surfaces.

Fieldwork was performed by Kyle Zinn, WPIT, CFA[3], Michael Smith[4], Jennifer Feese, PWD, PWS, VSWD[5], Michaela Moss, WPIT[6], Lindsey Shortt, WPIT, Abby Spotswood, Alex Bailey[7], Alex Thorpe, Autumn Thomas, and Dan Wilson from March 18, 2024 – August 21, 2024. Additional fieldwork was performed by WSSI staff on October 7-9, 15, 16, and 28, 2024, November 13-15 and 19-21, 2024, January 8-10 and 14, 2025, February 24-27, 2025, and March 31, 2025.

The delineation was completed by flagging the entire boundary of each distinct Cowardin classified wetland area within all wetland complexes to accurately capture their size and extent. Wetlands and data points were delineated in the field with yellow-glo flagging tape and streams were delineated with blue-glo flagging tape. WSSI employed the Leica FLX100 GPS unit to locate wetland and stream flags. The FLX100 integrates with Leica's SmartNet RTK network, which allows for positioning in real time. WSSI also utilized ESRI's Field Maps software running on iPads, which integrates directly with the Leica FLX100. The GPS data and Field Maps were used to create a digital sketch map, which enabled WSSI staff to track progress and plan fieldwork. Additionally, the Field Maps app containing the digital sketch map was provided (viewing access only) to Williams (the project's client) to aid in the survey-location of the delineated features by others. After others surveyed the delineated features, the data was processed and supplied to WSSI as Coordinate Geometry (COGO) points in a .dwg (drawing) file format. These COGO points were then extracted and analyzed using ESRI ArcPro software to maintain both spatial and attribute information. From this processed data, WSSI generated point, polyline, and polygon features for data points, wetlands, and streams, which were subsequently compared to the field sketch map and reviewed by field staff scientists. The surveyed features are depicted in the updated Waters of the U.S. (Including Wetlands) Delineation Maps, which can be found in Attachment I.

Prior to conducting fieldwork, relevant background information was reviewed, including site topography, the Brosville, NC VA 1990, Northeast Eden, NC VA 2000, Mount Hermon, VA 1990, Whitmell, VA 1990, Spring Garden, VA 1990, and Chatham, VA 1994 USGS quadrangles (Exhibit 2) and Digital National Wetlands Inventory (Exhibit 3; downloaded October 2024) maps, U.S. Department of Agriculture 2024 Digital Data Soils Map (Exhibit 4), Sulfide Hazard Risk Map from Virginia Tech Department of Crop and Soil Environmental Sciences (Exhibit 5),

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3 *Wetland Professional in Training, Society of Wetlands Scientists Certification Program, Inc. Certified Fertilizer Applicator #CFA-5436183271, Virginia Department of Agriculture and Consumer Services*

4 *ISA Certified Arborist MA-6370A, TRAQ*

5 *Professional Wetland Scientist #1871, Society of Wetlands Scientists Certification Program, Inc.; Virginia Certified Professional Wetland Delineator #3402-000095; Certified Virginia State Water Delineator #VSWD0061; ISA Certified Arborist MA-5134A, TRAQ*

6 *Wetland Professional in Training, Society of Wetlands Scientists Certification Program, Inc.*

7 *ISA Certified Arborist MA-6574A, TRAQ*

and Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, Panels 51143C0510E; 51143C0610E; 51143C0495E; 51143C0615E; 51143C0605E; 51143C0515E, 51143C0505E, 51143C0395E; 51143C0415E; 51143C0405E; and 51143C0595E (Exhibit 6, Effective: 09/29/2010). Aerial photographs of the survey area, including a Spring 2015 Near Color Infrared Imagery from Virginia Base Mapping Program (VBMP; Exhibit 7) and a Spring 2023 Natural Color Imagery from VBMP (Exhibit 8), were also examined to investigate whether signatures indicative of wetlands are found on the survey area. The VBMP Spring 2023 Natural Color Imagery is also used as a base on the Waters of the U.S. (Including Wetlands) Delineation Maps (Attachment I). The output from the DEQ wetland condition assessment tool (WetCAT), which documents soil properties, is included in Exhibit 9.

The COE Antecedent Precipitation Tool (APT) was generated to evaluate precipitation conditions prior to and during fieldwork. The APT indicates that the area was under "wetter than normal" to "drier than normal" conditions during the time fieldwork was conducted and 30 days prior to fieldwork. The APT results can be found in Exhibit 10.

The DEQ Stream Identification Field Data Forms (SIF) that document the presence or absence of stream bed, bank, and OHWM data are provided in Exhibit 11. The DEQ SIFs were completed in areas where there was a transition from a stream to a non-stream (i.e., wetland or upland), where streams changed classification (i.e., intermittent to ephemeral), and along ephemeral streams to document OHWM.

The North Carolina Division of Water Quality (NCDWQ)[8] Stream evaluation method was applied in the field to determine whether the streams within the Virginia portion of the survey area were ephemeral, intermittent, or perennial. Application of this stream evaluation method results in numeric scores generated through the qualitative evaluation of the stream's geomorphological, hydrological, and biological characteristics, and the scores are used, in combination with the best professional judgment of the evaluator, to determine the stream's flow regime.

Based on the NCDWQ method, streams scoring below 19 are generally considered to be ephemeral, while streams scoring 19 or greater are at least intermittent. Based on the NCDWQ methodology's "NC DWQ Policy for the Definition of Perennial Stream Origins", a stream is considered perennial if any of the following criteria are met:

1. Biological indicators such as fish (except Gambusia), crayfish (in channel), amphibians (larval salamanders and large, multi-year tadpoles), or clams are present. If only crayfish or fingernail clams are present, a numerical value of at least 18 on the geomorphology section of the most current version of the NC DWQ stream classification form is required.

[8] *NC Division of Water Quality. 2010. Methodology for Identification of Intermittent and Perennial Streams and their Origins, Version 4.11. North Carolina Department of Environment and Natural Resources, Division of Water Quality. Raleigh, NC.*

OR

2. A numerical value of at least 30 points is determined from the most recent version of the NCDWQ stream identification form.

OR

3. More than one benthic macroinvertebrate that requires water for their entire life cycles are present as later instar larvae.[9]

Stream evaluation data forms that provide the results of the stream evaluation method and summarize WSSI's stream-flow determinations are provided in Exhibit 12.

Observations of vegetation, soils and hydrology were recorded, using Ecobot[10], at representative locations in the wetlands and adjacent non-wetland areas to determine the wetland boundaries. Routine Wetland Determination data forms generated through Ecobot describing representative plant communities, hydrology indicators, and soil characteristics for each Cowardin classification observed within respective systems are included in Exhibit 13. The *Field Indicators of Hydric Soils in the United States, A Guide for Identifying and Delineating Hydric Soils*, Version 8.2, 2018[11], was used for this delineation. Additionally, the four-strata sampling method was used with the following plot sizes and stratum definitions as outlined in the EMP Manual:

1. Tree stratum – 30-ft (9.1 m) radius; defined as woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2. Sapling/shrub stratum – 15-ft (4.6-m) radius; defined as woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
3. Herb stratum – 5-ft (1.5-m) radius; defined as all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.
4. Woody vines – 30-ft (9.1-m) radius; defined as all woody vines greater than 3.28 ft in height.

Photographs of the data point locations, representative streams, wetland and non-wetland communities, and other existing site conditions are included in Exhibit 14. The surveyed locations of delineated wetlands, other waters of the U.S., and the approximate locations of

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[9] *Lists of benthic macroinvertebrates that NCDWQ considers perennial stream indicators are provided in Tables 2 and 3 of the NCDWQ assessment methodology.*

[10] *Ecobot is a cloud-based platform for environmental assessments (including the COE's wetland determination data forms) and permitting. Ecobot has two components: a mobile application for field data collection, Ecobot Collector, and a web-based interface, Ecobot Manager, for project management, collaboration, QA/QC, and report generation. https://ecobot.com/*

[11] *United States Department of Agriculture, Natural Resources Conservation Service. 2018. Field Indicators of Hydric Soils in the United States, Version 8.2. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.*

photographs and DEQ SIF locations are depicted on Attachment I. Data Points 318-325 and 484-487 are excluded from this report and Attachment I as they were conducted as part of the Cherrystone PRM Site delineation as described in the report entitled "Waters of the U.S. (Including Wetlands) Delineation" prepared by WSSI on April 11, 2025 and updated on June 4, 2025. This delineation overlaps a portion of SSE but is a standalone site and report.

The wetlands discussed throughout the report and associated exhibits are described in terms of their "Cowardin classification." In the publication *Classification of Wetlands and Deepwater Habitats of the United States*[12] (Deepwater Habitats), wetlands and associated deepwater habitats are divided into five systems: marine, estuarine, riverine, lacustrine, and palustrine. Within the SSE survey area, riverine and palustrine systems were identified. These two systems are discussed briefly below:

> Riverine – As defined in the *Classification of Wetlands and Deepwater Habitats of the United States*, the Riverine System includes all wetlands and deepwater habitats contained within a channel excluding: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. The Riverine System is bounded on the landward side by upland, the channel bank, or by wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens. While not always, water typically flows within a Riverine System.
>
> Palustrine – As defined in the *Classification of Wetlands and Deepwater Habitats of the United States*, the Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5%. It also includes small, shallow, permanent, or intermittent water bodies often called ponds. Also included are wetlands lacking such vegetation, but with all of the following characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean derived salts less than 0.5%. The limits of the Palustrine System are bounded by upland or any of the other four systems.

The following table describes the different classes of palustrine and riverine features identified in the SSE survey area.

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[12] *Cowardin, L. et al. 1979. Classification of Wetlands and Deepwater Habitats of the United States. US Department of the Interior Fish and Wildlife Service Office of Biological Services Washington, D.C. December 1979.*

**Table 1.** Cowardin Classifications

| *Symbol* | *Feature Classification* | *Description of Wetland Category* |
|---|---|---|
| PFO | Palustrine Forested | Trees are the dominant life form—i.e., the tallest life form with at least 30 percent areal coverage. Trees are defined as woody plants at least 6 m (20 ft) in height. |
| PSS | Palustrine Scrub-Shrub | Woody plants less than 6 m (20 ft) tall are the dominant life form—i.e., the tallest life form with at least 30 percent areal coverage. The "shrub" life form includes true shrubs, young specimens of tree species that have not yet reached 6 m in height, and woody plants (including tree species) that are stunted because of adverse environmental conditions. |
| PEM | Palustrine Emergent | Emergent plants—i.e., erect, rooted, herbaceous hydrophytes, excluding mosses and lichens—are the tallest life form with at least 30% areal coverage. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants. |
| POW | Palustrine Open Water | While not found in the Deepwater Habitat document, it is referenced as a Cowardin Classification in the COE's Operations and Maintenance Business Information Regulatory Module (ORM) [13] table. POWs are typically defined as areas of open water within a Palustrine wetland system that are characterized by having no, or minimal, vegetation and are less than 20 acres in size. These open water areas are typically shallow, with depths less than 6.6 feet (2 meters) at low water. |
| R3 | Riverine, Upper Perennial | A stream channel with an ordinary high water mark and characterized by a high gradient. There is no tidal influence, and some water flows all year, except during years of extreme drought. |
| R4 | Riverine, Intermittent | A stream channel with an ordinary high water mark that contains non-tidal flowing water only |

[13] COE's Operations and Maintenance Business Information Regulatory Module (ORM). https://www.spa.usace.army.mil/Portals/16/docs/civilworks/regulatory/Bulk%20Upload/Bulk%20Data%20Cowardin.pdf

| | | |
|---|---|---|
| | | part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent. |
| R6 | Riverine, Ephemeral | While not found in the Deepwater Habitat document, it is referenced as a Cowardin Classification in the COE's ORM table. An ephemeral stream is a stream channel with an ordinary high water mark with flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Runoff from rainfall is the primary source of water for stream flow. There is no tidal influence. |

## Waters of the U.S. Delineation Findings

In WSSI's opinion, jurisdictional wetlands and other WOTUS (i.e., streams and ponds) are present within the Virginia portion of the SSE survey area. These jurisdictional waters of the U.S. include Sandy River, Hardys Creek, Trayner Branch, Sandy Creek, Banister River, White Oak Creek, Trotters Creek, Cherrystone Creek, and Little Cherrystone Creek (all USGS-mapped perennial streams). Additionally, ephemeral, intermittent, and perennial tributaries to the above-mentioned named waterbodies are present, as are PFO, PSS, and PEM wetlands and POWs.

On November 19-21, 2024, the DEQ conducted field site visits with WSSI staff as part of the SSWD request. Additionally, on February 26 and 27, 2025, the COE and DEQ conducted joint field site visits with WSSI staff as part of the PJD and SSWD requests. The results of the agency site visits and the DEQ SSWD (No. 000214) additional information requests are summarized in Exhibit°15 and have been incorporated into Attachment I.

Aquatic resources, as quantified on Attachment I and updated based upon the COE and DEQ site visits and the DEQ additional information request letters, include:

- 374,532 sf (8.60 ac) and 26,551 linear feet (lf) of perennial stream;
- 53,356 sf (1.23 ac) and 11,644 lf of intermittent stream;
- 27,194 sf (0.62 ac) and 7,008 lf of ephemeral stream;
- 1,095,315 sf (25.15 ac) of PFO wetland;
- 34,782 sf (0.80 ac) of PSS wetland;
- 1,714,051 sf (39.35 ac) of PEM wetland; and
- 298,020 sf (6.84 ac) of POW.

The remaining approximately 1,550.57 acres of the survey area were classified as uplands.

## Summary

In WSSI's opinion, jurisdictional wetlands and other WOTUS are present within the Virginia portion of the SSE survey area, based on our site observations, as described above and depicted on Attachment I.

The WOTUS in the survey area (i.e., the wetlands, streams, and jurisdictional ponds) are regulated by Sections 401 and 404 of the Clean Water Act and by state wetlands laws and cannot be disturbed without the appropriate permits. Such permits may include permits from local agencies, as well as the COE and the DEQ, depending upon the extent and type of impacts.

## Limitations

This study is based on an examination of the vegetation, soils, and hydrology and available reference documents. Field indicators can change with variations in hydrology and other factors. Therefore, our conclusions may vary from future observations by others. This report assesses the potential for wetlands on the survey area at the time of our review and does not address conditions at a given time in the future.

WSSI's review and report have been prepared in accordance with generally accepted guidelines for the conduct of a survey for potential Waters of the U.S. Conclusions presented herein are based upon our review of available information, the results of our field studies, and/or professional judgement. We make no other warranties, either expressed or implied, and our report is not a recommendation to buy, sell, manage, or develop the property.

WSSI offers no opinion and does not purport to opine on the possible application of various building codes, zoning ordinances, other land use or platting regulations, environmental or health laws and other similar statutes, laws, ordinances, code and regulations affecting the possible use and occupancy of the survey area for the purpose for which it is being used, except as specifically provided above.

The foregoing opinions are based on applicable laws, ordinances, and regulations in effect as of the date hereof and should not be construed to be an opinion as to the matters set out herein should such laws, ordinances or regulations be modified, repealed or amended.

Any reuse or modification of any of this document (whether hard copies or electronic transmittals) prepared by WSSI without written verification or adaptation by WSSI will be at the sole risk of the individual or entity utilizing said document and such use is without the authorization of WSSI. WSSI shall have no legal liability resulting from any and all claims, damages, losses, and expenses, including attorney's fees arising out of the unauthorized reuse or modification of this document. Client shall indemnify WSSI from any claims arising out of unauthorized use or modification of the document whether hard copy or electronic.

This report does not constitute a jurisdictional determination of WOTUS since such determinations must be verified by the COE or the Natural Resources Conservation Service (as applicable) and are subject to review by the U.S. Environmental Protection Agency. This report does not constitute a stream characterization determination.

WETLAND STUDIES AND SOLUTIONS, INC.

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*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

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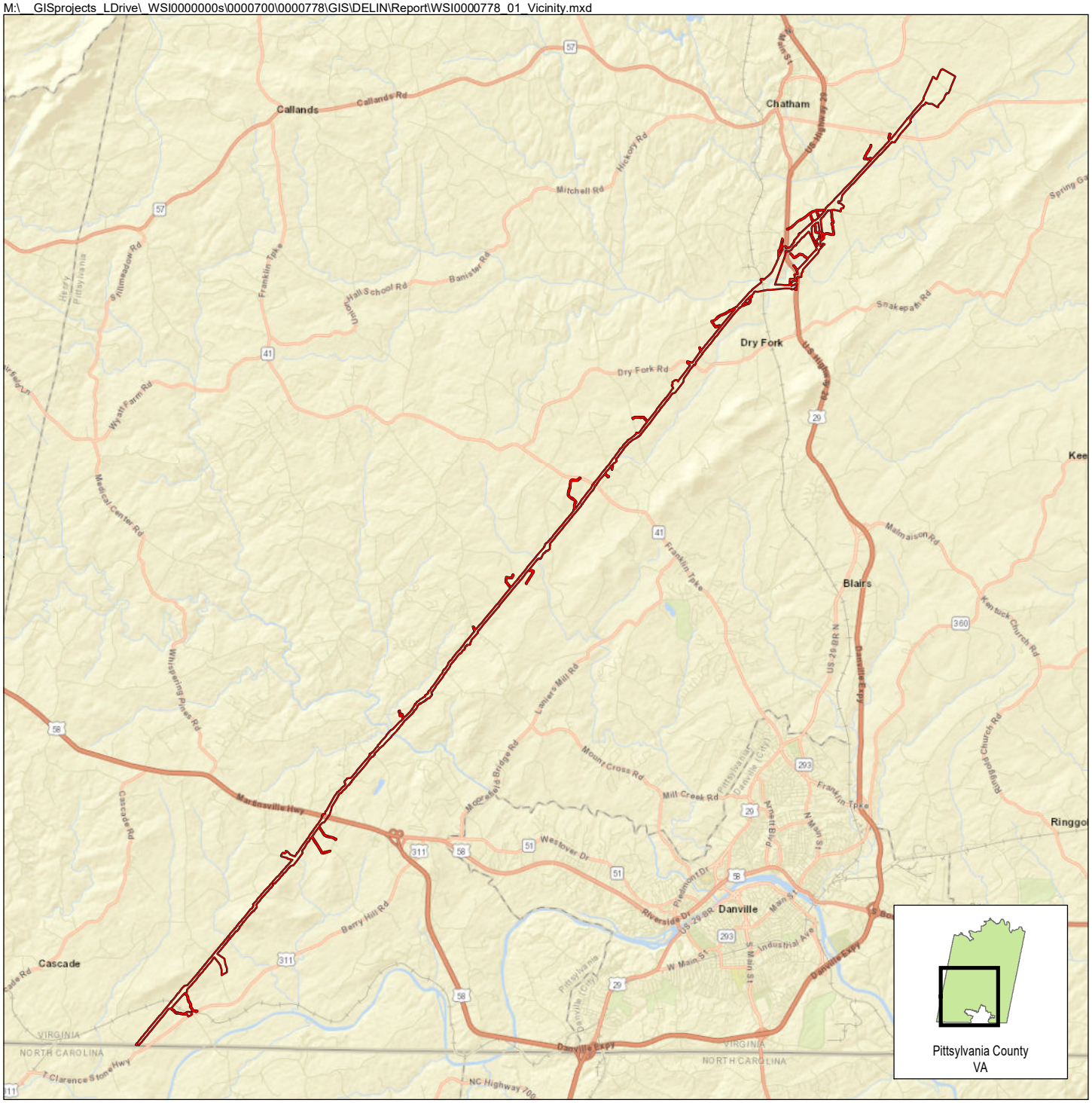


Survey Area (±1633 acres)

# Vicinity Map
## Southeast Supply Enhancement Project
## Eden Loop - VA Portion and Compressor Station 165
## WSI0000778

NORTH

0 3

Miles

Original Scale:
1 " = 3 miles

Source: World Street Map - ESRI

**Wetland Studies and Solutions, Inc.**
a DAVEY company

***Exhibit 1***

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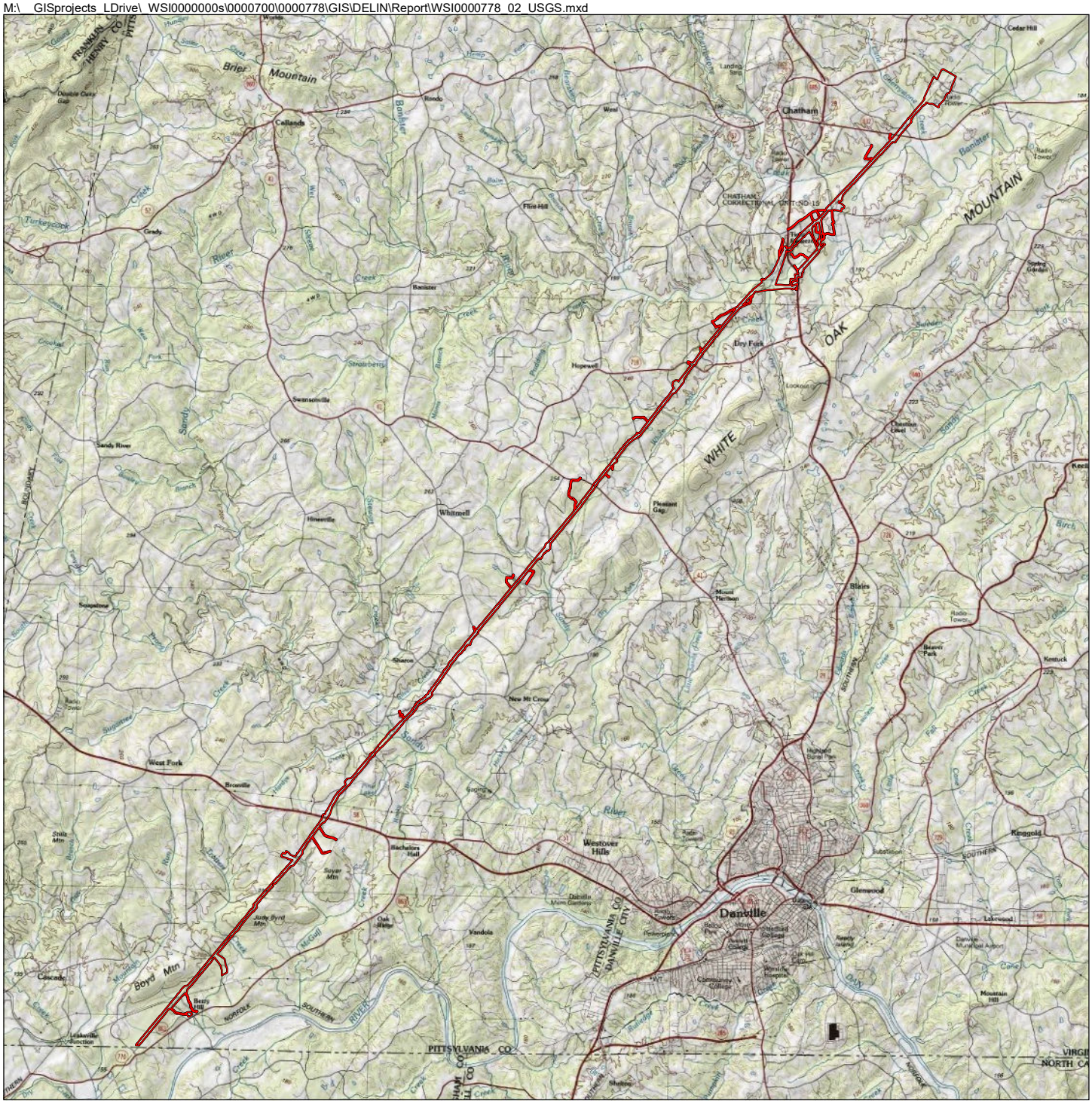


Survey Area

# USGS 7.5' Quadrangle Map
# Southeast Supply Enhancement Project
# Eden Loop - VA Portion and Compressor Station 165
# WSI0000778

NORTH
0 3
Miles
Original Scale:
1 " = 3 miles

Brosville, NC VA 1990
Northeast Eden, NC VA 2000
Mount Hermon, VA 1990
Whitmell, VA 1990
Spring Garden, VA 1990
Chatham, VA 1994
Latitude: 36°41'36"N
Longitude: 79°28'57"W
Hydrologic Unit Code (HUC): 030101031003; 030101031004; 030101050203; 030101050103; 030101050104; 030101030903
HUC12 Name: Lower Sandy River; Sandy Creek (West)-Dan River; Shockoe Creek-Banister River; White Oak Creek-Banister River; Cherrystone Creek; Trotters Creek-Dan River
COE Region: Eastern Mountains and Piedmont

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Survey Area

**Wetland Type**

- Open Water
- Freshwater Forested/Shrub Wetland
- Freshwater Emergent Wetland
- Estuarine and Marine Wetland
- Other

Source: U.S. Fish and Wildlife Service; October 2024

# Digital National Wetlands Inventory Map
# Southeast Supply Enhancement Project
# Eden Loop - VA Portion and Compressor Station 165
# WSI0000778

NORTH

0 4,000
Feet

Original Scale:
1 " = 4,000 feet

**Wetland Studies and Solutions, Inc.**
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***Exhibit 3***

M:_ GISprojects_LDrive_WSI0000000s\0000700\0000778\GIS\DELIN\Report\WSI0000778_04_Soils.mxd

North Carolina

Survey Area
Hydric Soil
Soil with Hydric Inclusion
Non-Hydric Soil
Water

# Soils Map
# Southeast Supply Enhancement Project
# Eden Loop - VA Portion and Compressor Station 165
# WSI0000778

NORTH

0 4,000
Feet

Original Scale:
1 " = 4,000 feet

Major Land Resource Area: Southern Piedmont, 136
Land Resource Region: South Atlantic and Gulf Slope Cash Crops, Forest, and Livestock Region, P
Source: Pittsylvania County Digital Data, U.S. Department of Agriculture, 2024

**Wetland Studies and Solutions, Inc.**
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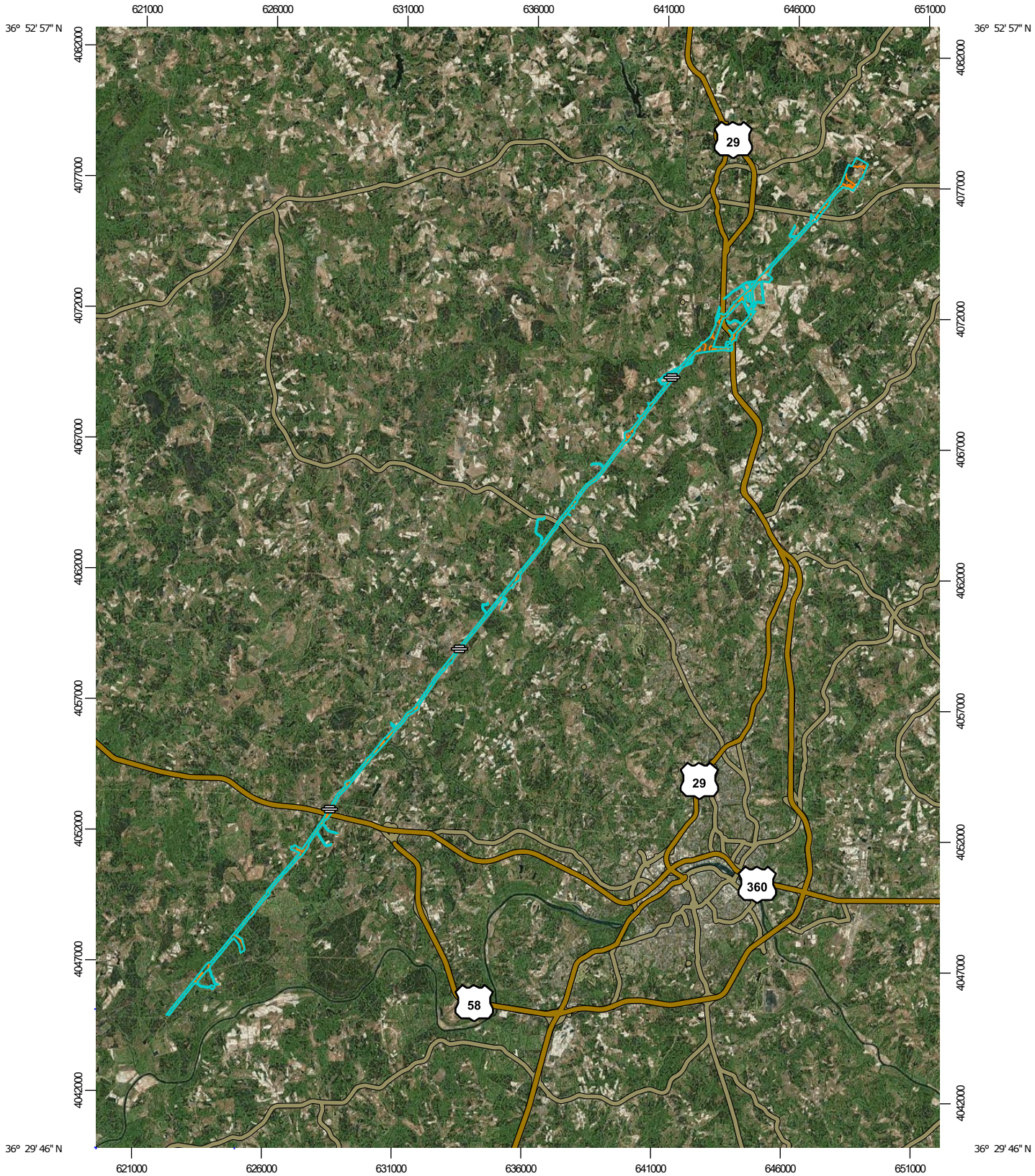
***Exhibit 4***

Soil Map—Pittsylvania County and the City of Danville, Virginia, and Rockingham County, North Carolina
(REV19_SurveyArea)




Map Scale: 1:209,000 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 3000 6000 12000 18000

Feet
0 10000 20000 40000 60000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

## MAP LEGEND

**Area of Interest (AOI)**
- Area of Interest (AOI)

**Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

**Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

**Water Features**
- Streams and Canals

**Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**
- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Pittsylvania County and the City of Danville, Virginia
Survey Area Data: Version 17, Aug 30, 2024

Soil Survey Area: Rockingham County, North Carolina
Survey Area Data: Version 26, Sep 9, 2024

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 1, 1999—Dec 31, 2003

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 1B | Nathalie sandy loam, 2 to 7 percent slopes | 23.9 | 1.5% |
| 1C | Nathalie sandy loam, 7 to 15 percent slopes | 33.2 | 2.0% |
| 3B | Delanco fine sandy loam, 2 to 7 percent slopes | 6.0 | 0.4% |
| 4B | Clifford sandy loam, 2 to 7 percent slopes | 108.3 | 6.6% |
| 4C | Clifford sandy loam, 7 to 15 percent slopes | 16.7 | 1.0% |
| 5B3 | Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded | 318.5 | 19.5% |
| 5C3 | Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded | 242.6 | 14.9% |
| 7A | Codorus loam, 0 to 2 percent slopes, occasionally flooded | 19.2 | 1.2% |
| 8A | Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded | 57.0 | 3.5% |
| 9B | Lackstown fine sandy loam, 2 to 7 percent slopes | 46.6 | 2.9% |
| 9C | Lackstown fine sandy loam, 7 to 15 percent slopes | 10.7 | 0.7% |
| 11B3 | Minnieville clay loam, 2 to 7 percent slopes, severely eroded | 21.6 | 1.3% |
| 11C3 | Minnieville clay loam, 7 to 15 percent slopes, severely eroded | 10.4 | 0.6% |
| 16B | Halifax sandy loam, 2 to 7 percent slopes | 2.8 | 0.2% |
| 17B | Yadkin loam, 2 to 7 percent slopes | 34.0 | 2.1% |
| 18C3 | Yadkin clay loam, 7 to 15 percent slopes, severely eroded | 16.4 | 1.0% |
| 21D | Poplar Forest fine sandy loam, 15 to 25 percent slopes | 71.2 | 4.4% |
| 21E | Poplar Forest fine sandy loam, 25 to 45 percent slopes | 6.7 | 0.4% |
| 22B | Bentley sandy loam, 2 to 7 percent slopes | 5.2 | 0.3% |
| 23B | Clover fine sandy loam, 2 to 7 percent slopes | 271.7 | 16.6% |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 23C | Clover fine sandy loam, 7 to 15 percent slopes | 201.4 | 12.3% |
| 23D | Clover fine sandy loam, 15 to 25 percent slopes | 32.0 | 2.0% |
| 28C | Pinkston cobbly sandy loam, 7 to 15 percent slopes | 11.9 | 0.7% |
| 29C | Pinkston-Clover complex, 7 to 15 percent slopes, very stony | 15.2 | 0.9% |
| 29D | Pinkston-Clover complex, 15 to 35 percent slopes, very stony | 4.1 | 0.2% |
| 29E | Pinkston-Clover complex, 35 to 50 percent slopes, very stony | 5.0 | 0.3% |
| 34B | Sheva fine sandy loam, 2 to 7 percent slopes | 19.8 | 1.2% |
| 34C | Sheva fine sandy loam, 7 to 15 percent slopes | 0.0 | 0.0% |
| 39 | Udorthents, loamy, 0 to 15 percent slopes | 6.0 | 0.4% |
| 41A | Hatboro silt loam, 0 to 2 percent slopes, frequently flooded | 8.0 | 0.5% |
| 42B | Elsinboro sandy loam, 2 to 7 percent slopes | 0.8 | 0.0% |
| W | Water | 6.0 | 0.4% |
| **Subtotals for Soil Survey Area** | | **1,632.9** | **100.0%** |
| **Totals for Area of Interest** | | **1,633.1** | **100.0%** |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| CmB | Clover sandy loam, 2 to 8 percent slopes | 0.2 | 0.0% |
| **Subtotals for Soil Survey Area** | | **0.2** | **0.0%** |
| **Totals for Area of Interest** | | **1,633.1** | **100.0%** |

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# Sulfide Hazard Risk Map
# Southeast Supply Enhancement Project
# Eden Loop - VA Portion and Compressor Station 165
# WSI0000778

Survey Area

**Estimated acid producing risk potential of sulfide bearing materials**

- Low-mod risk
- Mod risk
- Mod-high risk
- High risk
- No documented risk
- Unknown. Sulfides documented in literature.
- Water

NORTH

0 3

Miles

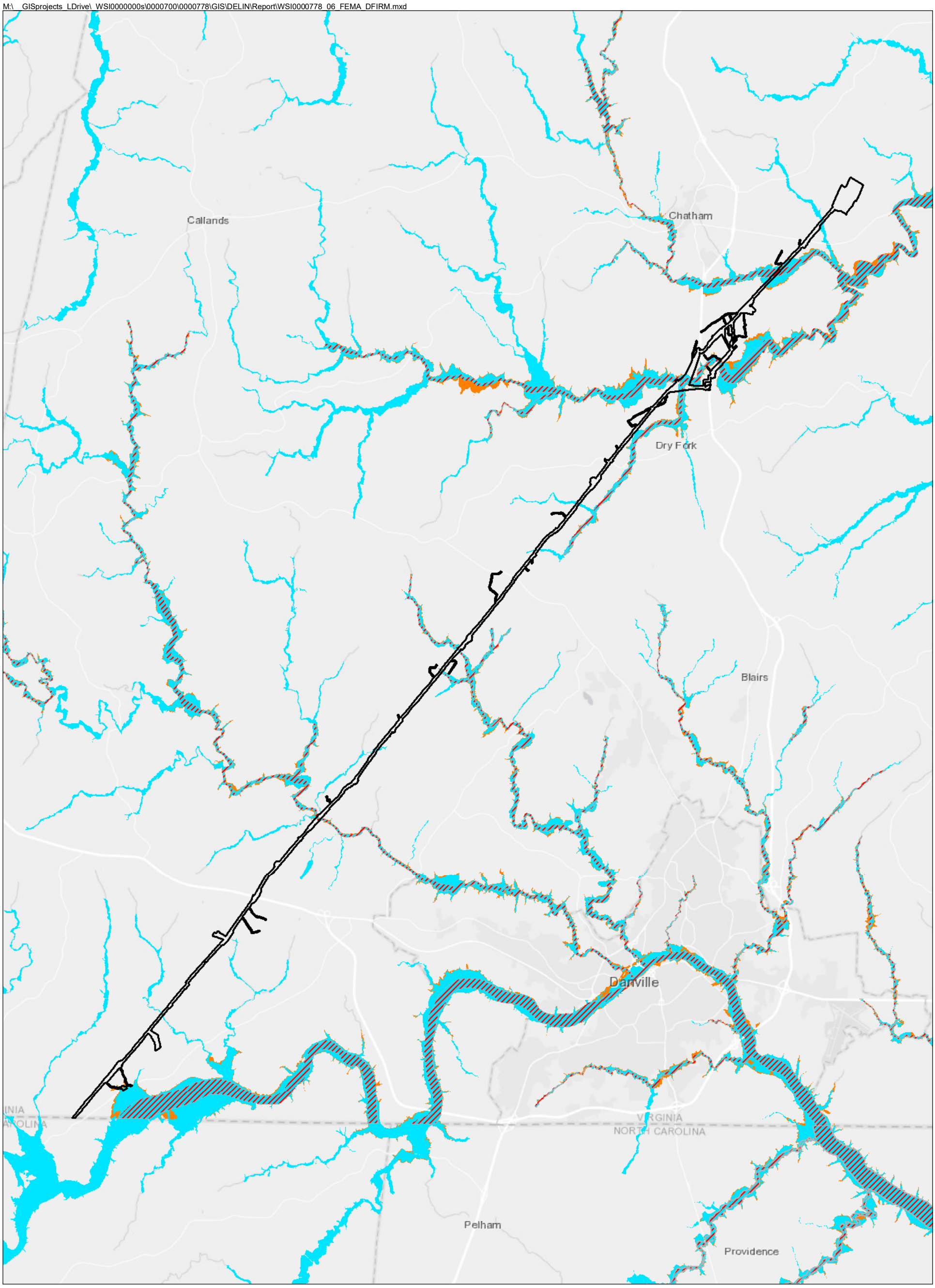
Original Scale:
1 " = 3 miles

Source: Virginia Tech Department of Crop and Soil Environmental Sciences. Zenah W. Orndoff and W. Lee Daniels

**Wetland Studies and Solutions, Inc.**
a DAVEY company

***Exhibit 5***

M:__GISprojects_LDrive_WSI0000000s\0000700\0000778\GIS\DELIN\Report\WSI0000778_06_FEMA_DFIRM.mxd




Survey Area
Regulatory Floodway
1% Annual Chance Flood Hazard
0.5% Annual Chance Flood Hazard

**FEMA Digital Flood Insurance Rate Map**
**Southeast Supply Enhancement Project**
**Eden Loop - VA Portion and Compressor Station 165**
**WSI0000778**

NORTH
0 2
Miles
Original Scale:
1 " = 2 miles

Panel: 51143C0510E, Effective: 09/29/2010
Panel: 51143C0610E, Effective: 09/29/2010
Panel: 51143C0495E, Effective: 09/29/2010
Panel: 51143C0615E, Effective: 09/29/2010
Panel: 51143C0605E, Effective: 09/29/2010
Panel: 51143C0515E, Effective: 09/29/2010
Panel: 51143C0505E, Effective: 09/29/2010
Panel: 51143C0395E, Effective: 09/29/2010
Panel: 51143C0415E, Effective: 09/29/2010
Panel: 51143C0405E, Effective: 09/29/2010
Panel: 51143C0595E, Effective: 09/29/2010
Source: FEMA, ESRI

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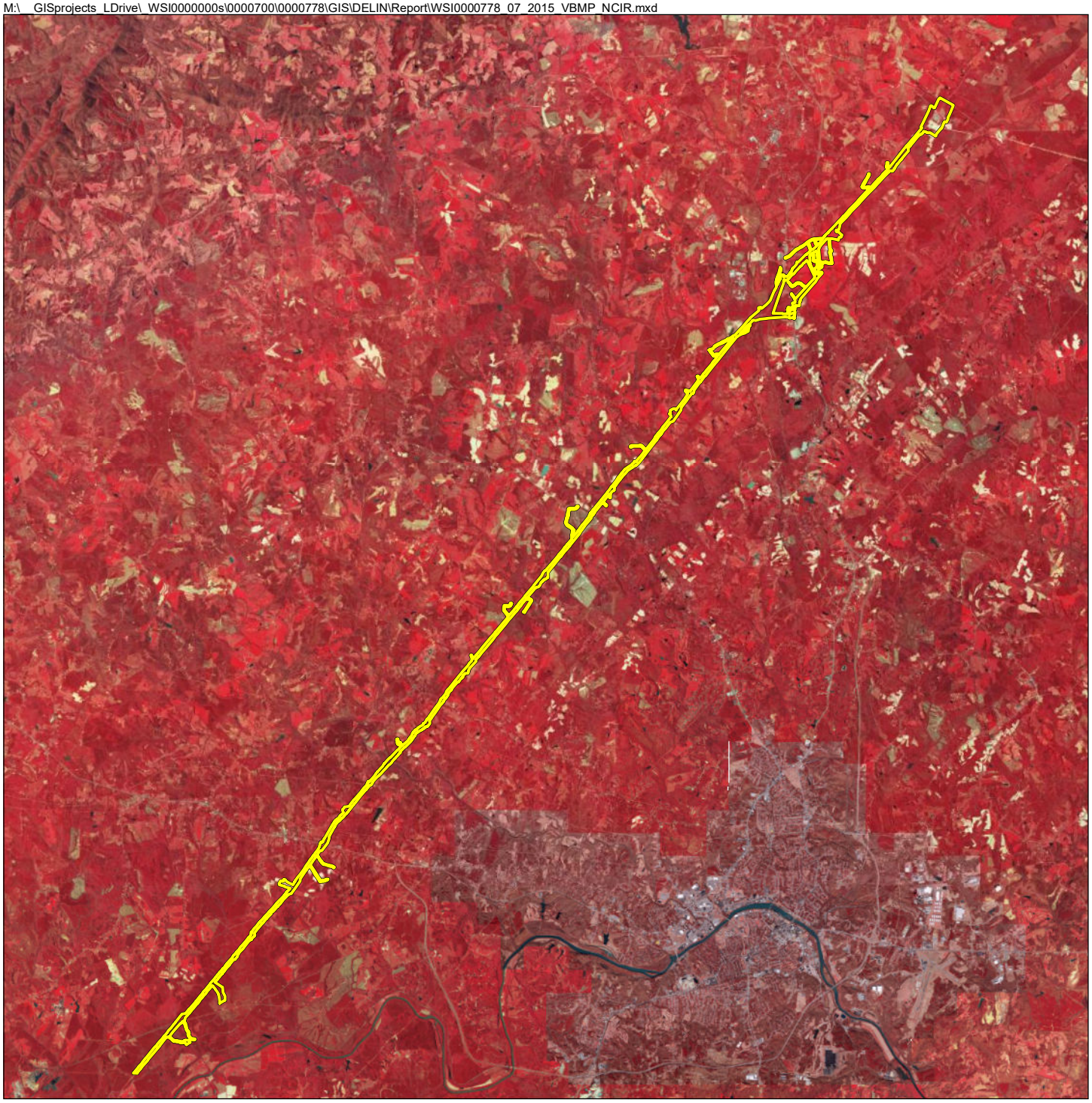
***Exhibit 6***

M:__GISprojects_LDrive_WSI0000000s\0000700\0000778\GIS\DELIN\Report\WSI0000778_07_2015_VBMP_NCIR.mxd



Survey Area

**Spring 2015 Near Color Infrared Imagery**
**Southeast Supply Enhancement Project**
**Eden Loop - VA Portion and Compressor Station 165**
**WSI0000778**

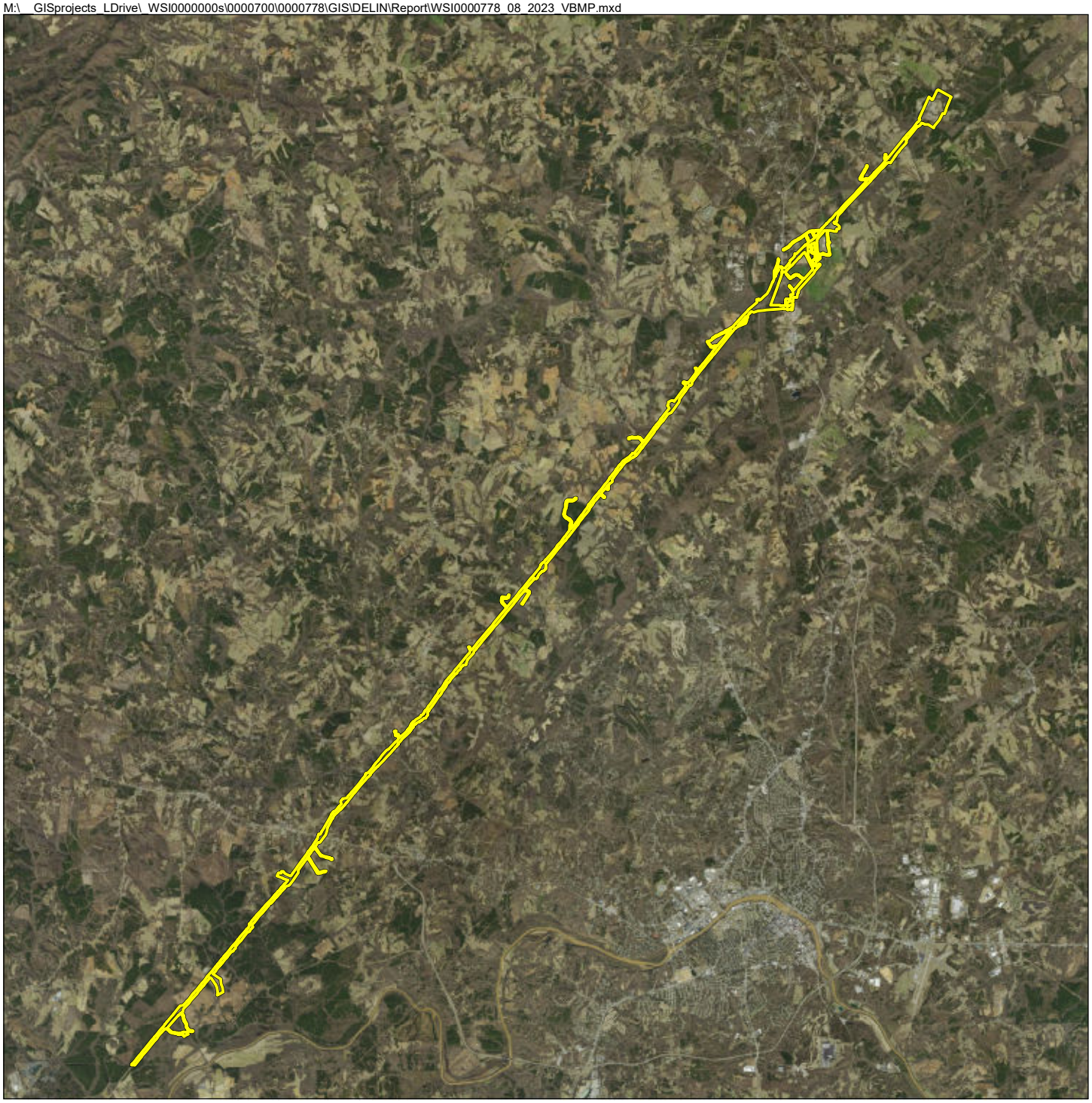
NORTH
0 3
Miles
Original Scale:
1 " = 3 miles

Source: Virginia Base Mapping Program (VBMP)

**Wetland Studies and Solutions, Inc.**
a DAVEY company

***Exhibit 7***

M:__GISprojects_LDrive_WSI0000000s\0000700\0000778\GIS\DELIN\Report\WSI0000778_08_2023_VBMP.mxd



Survey Area

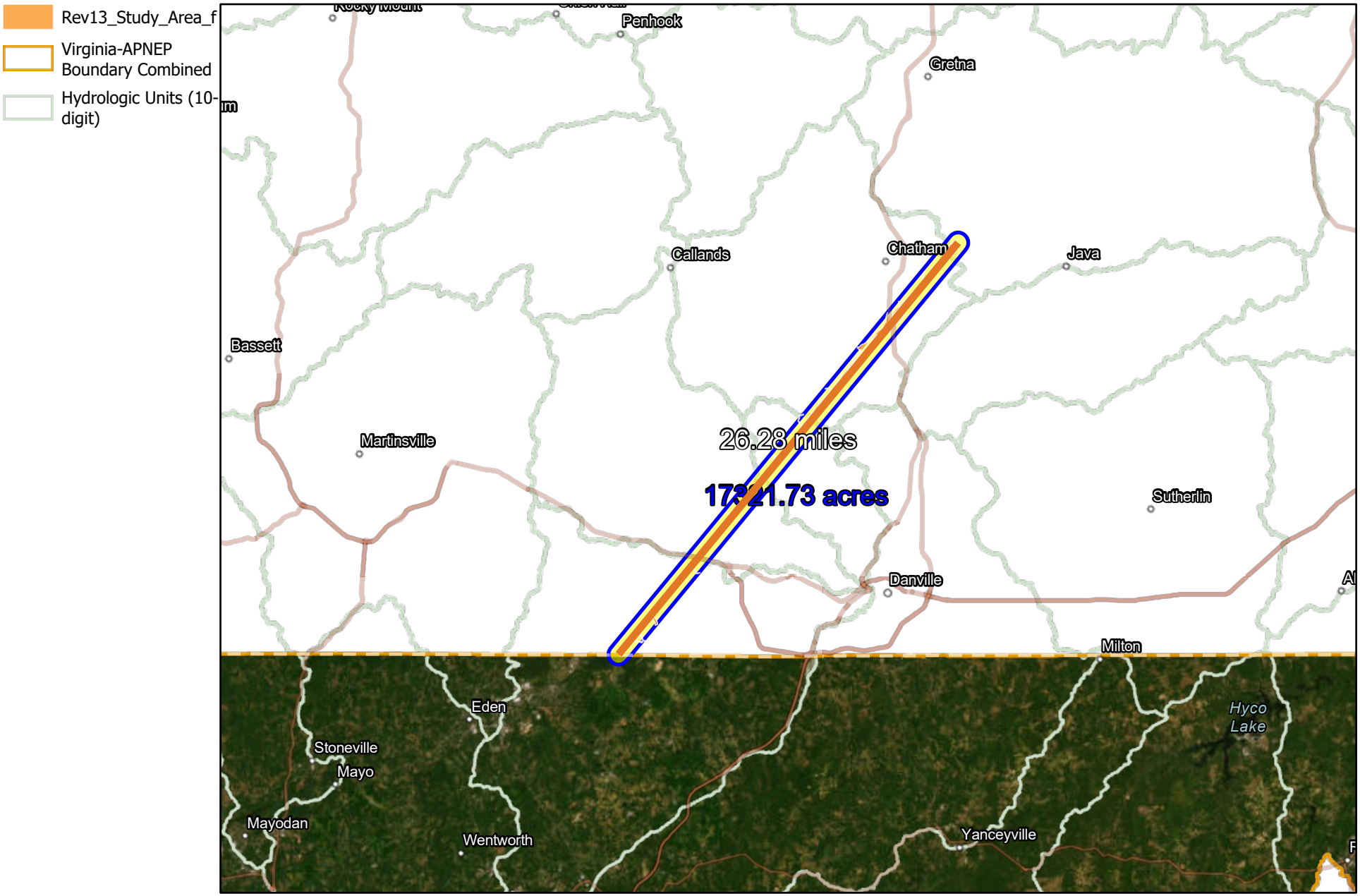
**Spring 2023 Natural Color Imagery**
**Southeast Supply Enhancement Project**
**Eden Loop - VA Portion and Compressor Station 165**
**WSI0000778**

NORTH
0 3
Miles
Original Scale:
1 " = 3 miles

Source: Virginia Base Mapping Program (VBMP)

# EXHIBIT 9 - WETCAT

## SSE WetCAT




September 13, 2024
Created from the Wetland Condition Assessment Tool Viewer (WetCAT)

0 3.5 7 14 mi
0 5 10 20 km

Earthstar Geographics
VGIN, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS

VIMS | William & Mary
Virginia Institute of Marine Science
Center for Coastal Resources Management

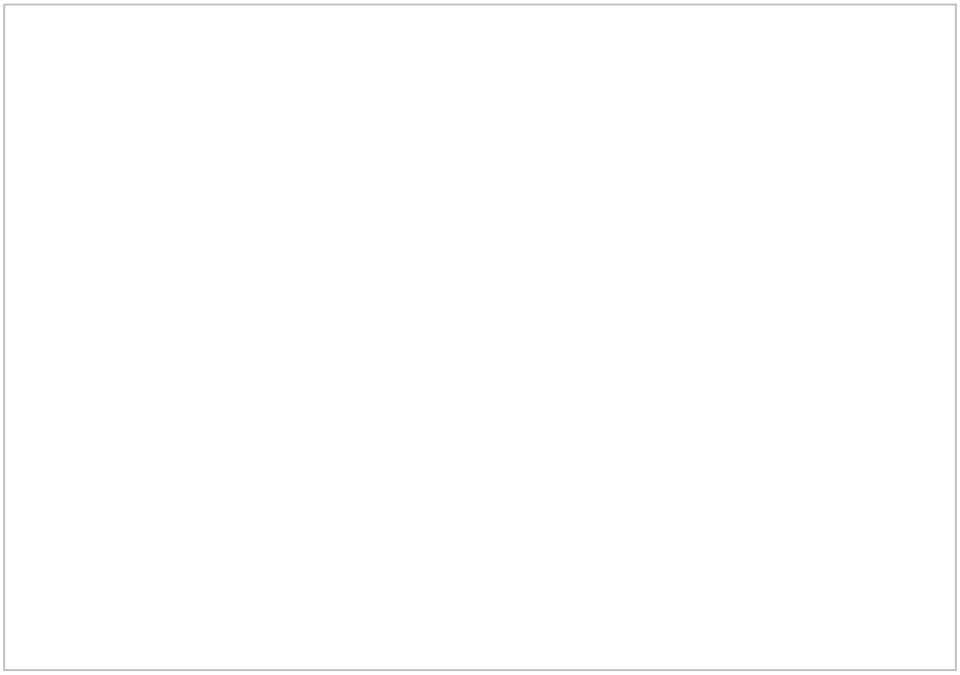
DEQ
Virginia Department of Environmental Quality

# WetCAT Cumulative Results summarizing data within user defined boundary

The following is a summary of selected data within a 17299.23 acre polygon (center point longitude: -79.483890 latitude: 36.689641). This analysis was run in the Wetland Condition Assessment Tool (WetCAT) on Fri Sep 13 2024.

Located in the following jurisdiction(s): Pittsylvania County, Virginia

10-Digit Hydrologic Unit(s): Cherrystone Creek-Banister River (0301010501); Stinking River-Banister River (0301010502); Cascade Creek-Dan River (0301010309); Sandy River (0301010310)



**NWI Summary - Scores**

| Score Type | Score | Minimum | Maximum |
|---|---|---|---|
| Habitat (average) *is Somewhat Stressed* | 0.71 | 0.32 | 0.94 |
| Habitat Restoration Potential (average %) | 18 | 0 | 75 |
| Water Quality (mode) *is Somewhat Stressed* | 0.7 | 0.1 | 1.0 |
| Water Quality Restoration Potential (mode) | 0 | 0 | 300 |

NWI Summary - Stress Level

| Stress Level | # Wetlands (Habitat) | # Wetlands (Water Quality) |
|---|---|---|
| Slightly Stressed | 4 | 17 |
| Somewhat Stressed | 51 | 28 |
| Somewhat Severely Stressed | 14 | 17 |
| Severely Stressed | 0 | 7 |

NWI Summary - Classes

| Wetland Class | Acres | # Wetlands | Ave Habitat Score | Min Habitat Score | Max Habitat Score | Ave Habitat Restoration Potential (%) | Mode WQ Score | Min WQ Score | Max WQ Score | Mode WQ Restoration Potential (%) |
|---|---|---|---|---|---|---|---|---|---|---|
| PEM | 22.25 | 23 | 0.64 | 0.32 | 0.87 | 26 | 0.4 | 0.1 | 0.7 | 75 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| PFO | 165.55 | 33 | 0.75 | 0.46 | 0.94 | 13 | 0.7 | 0.4 | 1 | 0 |
| PSS | 34.12 | 13 | 0.77 | 0.42 | 0.94 | 15 | 0.7 | 0.1 | 1 | 0 |

*Tidal Marsh is not present within this user defined area.*

DEQ Permits:

| Permit Name | Permit Type | Facility Name | Classification | Activity Type | DEQ Region Name | Project Locality |
|---|---|---|---|---|---|---|
| 22-001547 | Non-Permit | Transco Groundbed 160-9-5-A&B | History | Industrial | Blue Ridge | Pittsylvania County |
| 22-001553 | Non-Permit | Transco Groundbed 160-8-4 | History | Industrial | Blue Ridge | Pittsylvania County |
| WP3-17-4153 | General | VDOT 00875-071-22548091 | History | Municipal | Central | Pittsylvania County |

Virginia Water Protection Program (VWP) Boundaries

| Project Name | Permit Number | Region | Boundary Type |
|---|---|---|---|
| Berry Hill Commerce Center, Phase I | WP4-15-1114 | BRRO | Project Boundary |
| Berry Hill Commerce Center, Phase I | WP4-19-0656 | BRRO | Project Boundary |
| Southern Virginia Solar | WP4-22-2208 | BRRO | Project Boundary |

USACE Permits

| Permit Name | No. Impact Records | No. Mitgation Records |
|---|---|---|
| NAO-2015-02191-jcr | 1 | 0 |

*North Carolina Permit Points are not present within this user defined area.*

Soils

| Soil Name | Drainage Class | Hydric Class | Soil Order | Percent of Buffer |
|---|---|---|---|---|
| Bannertown fine sandy loam, 15 to 35 percent slopes | Excessively drained | Not Hydric (0%) | Inceptisols | 0.01 |
| Bentley sandy loam, 2 to 7 percent slopes | Moderately well drained | Not Hydric (0%) | Ultisols | 0.18 |
| Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded | Well drained | Not Hydric (0%) | Ultisols | 13.34 |
| Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded | Well drained | Not Hydric (0%) | Ultisols | 14.54 |
| Clifford sandy loam, 2 to 7 percent slopes | Well drained | Not Hydric (0%) | Ultisols | 5.53 |
| Clifford sandy loam, 7 to 15 percent slopes | Well drained | Not Hydric (0%) | Ultisols | 1.81 |
| Clover fine sandy loam, 15 to 25 percent slopes | Well drained | Hydric (1-32%) | Ultisols | 3.71 |
| Clover fine sandy loam, 2 to 7 percent slopes | Well drained | Hydric (1-32%) | Ultisols | 12.90 |
| Clover fine sandy loam, 7 to 15 percent slopes | Well drained | Hydric (1-32%) | Ultisols | 15.36 |
| Clover sandy loam, 15 to 25 percent slopes | Well drained | Not Hydric (0%) | Ultisols | 0.09 |
| Clover sandy loam, 2 to 8 percent slopes | Well drained | Not Hydric (0%) | Ultisols | 0.89 |

| | | | | |
|---|---|---|---|---|
| Clover sandy loam, 8 to 15 percent slopes | Well drained | Not Hydric (0%) | Ultisols | 0.34 |
| Codorus loam, 0 to 2 percent slopes, occasionally flooded | Somewhat poorly drained | Hydric (1-32%) | Inceptisols | 1.35 |
| Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded | Somewhat poorly drained | Hydric (1-32%) | Inceptisols | 4.23 |
| Comus fine sandy loam, 0 to 2 percent slopes, occasionally flooded | Well drained | Not Hydric (0%) | Inceptisols | 0.14 |
| Delanco fine sandy loam, 2 to 7 percent slopes | Moderately well drained | Not Hydric (0%) | Ultisols | 0.06 |
| Elsinboro sandy loam, 2 to 7 percent slopes | Well drained | Not Hydric (0%) | Ultisols | 0.02 |
| Enott fine sandy loam, 7 to 15 percent slopes | Well drained | Not Hydric (0%) | Alfisols | 0.07 |
| Fairview fine sandy loam, 15 to 25 percent slopes | Well drained | Not Hydric (0%) | Ultisols | 0.04 |
| Halifax sandy loam, 2 to 7 percent slopes | Moderately well drained | Not Hydric (0%) | Ultisols | 0.40 |
| Hatboro silt loam, 0 to 2 percent slopes, frequently flooded | Poorly drained | Hydric (66-99%) | Inceptisols | 1.44 |
| Lackstown fine sandy loam, 2 to 7 percent slopes | Moderately well drained | Hydric (1-32%) | Ultisols | 2.24 |
| Lackstown fine sandy loam, 7 to 15 percent slopes | Moderately well drained | Hydric (1-32%) | Ultisols | 0.52 |
| Minnieville clay loam, 2 to 7 percent slopes, severely eroded | Well drained | Not Hydric (0%) | Ultisols | 1.36 |
| Minnieville clay loam, 7 to 15 percent slopes, severely eroded | Well drained | Not Hydric (0%) | Ultisols | 2.09 |
| Minnieville loam, 2 to 7 percent slopes | Well drained | Not Hydric (0%) | Ultisols | 1.22 |
| Nathalie sandy loam, 2 to 7 percent slopes | Well drained | Not Hydric (0%) | Ultisols | 0.61 |
| Nathalie sandy loam, 7 to 15 percent slopes | Well drained | Not Hydric (0%) | Ultisols | 0.84 |
| Pfafftown sandy loam, 0 to 4 percent slopes, rarely flooded | Well drained | Not Hydric (0%) | Ultisols | 0.01 |
| Pinkston cobbly sandy loam, 15 to 35 percent slopes | Excessively drained | Not Hydric (0%) | Inceptisols | 0.31 |
| Pinkston cobbly sandy loam, 7 to 15 percent slopes | Excessively drained | Not Hydric (0%) | Inceptisols | 0.57 |
| Pinkston-Clover complex, 15 to 35 percent slopes, very stony | Excessively drained | Not Hydric (0%) | Inceptisols | 1.07 |
| Pinkston-Clover complex, 35 to 50 percent slopes, very stony | Excessively drained | Not Hydric (0%) | Inceptisols | 0.42 |
| Pinkston-Clover complex, 7 to 15 percent slopes, very stony | Excessively drained | Not Hydric (0%) | Inceptisols | 0.42 |
| Poplar Forest fine sandy loam, 15 to 25 percent slopes | Well drained | Not Hydric (0%) | Ultisols | 7.70 |
| Poplar Forest fine sandy loam, 25 to 45 percent slopes | Well drained | Not Hydric (0%) | Ultisols | 0.56 |
| Sheva fine sandy loam, 2 to 7 percent slopes | Moderately well drained | Hydric (1-32%) | Ultisols | 0.89 |

| | | | | |
|---|---|---|---|---|
| Sheva fine sandy loam, 7 to 15 percent slopes | Moderately well drained | Not Hydric (0%) | Ultisols | 0.19 |
| Siloam gravelly fine sandy loam, 15 to 25 percent slopes | Well drained | Not Hydric (0%) | Alfisols | 0.06 |
| Siloam gravelly fine sandy loam, 7 to 15 percent slopes | Well drained | Not Hydric (0%) | Alfisols | 0.04 |
| Udorthents, loamy, 0 to 15 percent slopes | not classified | Not Hydric (0%) | Entisols | 0.16 |
| Water | Water | Water | Unranked or Not Available | 0.47 |
| Yadkin clay loam, 2 to 7 percent slopes, severely eroded | Well drained | Not Hydric (0%) | Ultisols | 0.13 |
| Yadkin clay loam, 7 to 15 percent slopes, severely eroded | Well drained | Not Hydric (0%) | Ultisols | 0.55 |
| Yadkin loam, 2 to 7 percent slopes | Well drained | Not Hydric (0%) | Ultisols | 1.13 |

Soils Summary Data - Most Common

| **Most Common Soil within Buffer** | **Drainage Class** | **Hydric Class** | **Soil Order** | **Percent of Buffer** |
|---|---|---|---|---|
| Clover fine sandy loam, 7 to 15 percent slopes | Well drained | Hydric (1-32%) | Ultisols | 15.36 |

Soils Summary Data - Soil Order

| **Soil Order** | **Frequency** | **Percent of Buffer** |
|---|---|---|
| Alfisols | 6 | 0.17 |
| Entisols | 1 | 0.16 |
| Inceptisols | 46 | 9.97 |
| Ultisols | 553 | 89.23 |
| Unranked or Not Available | 30 | 0.47 |

Soils Summary Data - Drainage Classification

| **Drainage Class** | **Frequency** | **Percent of Buffer** |
|---|---|---|
| Excessively drained | 25 | 2.82 |
| Moderately well drained | 41 | 4.48 |
| Poorly drained | 7 | 1.44 |
| Somewhat poorly drained | 12 | 5.57 |
| Water | 30 | 0.47 |
| Well drained | 520 | 85.06 |
| not classified | 1 | 0.16 |

Soils Summary Data - Hydric Frequency

| **Hydric Class** | **Frequency** | **Percent of Buffer** |
|---|---|---|
| Hydric (1-32%) | 207 | 41.18 |
| Hydric (66-99%) | 7 | 1.44 |
| Not Hydric (0%) | 392 | 56.92 |
| Water | 30 | 0.47 |

Water Quality Assessment 305(b)/303(d) Waters (2022)

| **Assessment Unit ID** | **Water Name** | **Type of Impaired Water** | **Assessment Classification** |
|---|---|---|---|

| | | | |
|---|---|---|---|
| VAW-L65R_BAN01A00 | Banister River | river | Indeterminate |
| | **Category 3A**: There is no data available within the data window of the current assessment to determine if any designated use is attained and the water was not previously listed as impaired.<br>**Impairment Causes:** Not Applicable<br>**Sources:** Not Applicable | | |
| VAW-L58R_ZZZ01A00 | Unsegmented Portion of Watershed L58 | river | Indeterminate |
| | **Category 3A**: There is no data available within the data window of the current assessment to determine if any designated use is attained and the water was not previously listed as impaired.<br>**Impairment Causes:** Not Applicable<br>**Sources:** Not Applicable | | |
| VAW-L57R_ZZZ01A00 | Unsegmented Portion of Watershed L57 | river | Indeterminate |
| | **Category 3A**: There is no data available within the data window of the current assessment to determine if any designated use is attained and the water was not previously listed as impaired.<br>**Impairment Causes:** Not Applicable<br>**Sources:** Not Applicable | | |
| VAW-L65R_ZZZ01A00 | Unsegmented Portion of Watershed L65 | river | Indeterminate |
| | **Category 3A**: There is no data available within the data window of the current assessment to determine if any designated use is attained and the water was not previously listed as impaired.<br>**Impairment Causes:** Not Applicable<br>**Sources:** Not Applicable | | |
| VAW-L66R_CRR01A00 | Cherrystone Creek | river | Indeterminate |
| | **Category 3B**: Some data exists but are insufficient to determine support of any designated use. Such waters will be prioritized for follow up monitoring as needed.<br>**Impairment Causes:** Not Applicable<br>**Sources:** Not Applicable | | |
| VAW-L67R_ZZZ01C14 | Unsegmented Portion of Watershed L67R | river | Indeterminate |
| | **Category 3A**: There is no data available within the data window of the current assessment to determine if any designated use is attained and the water was not previously listed as impaired.<br>**Impairment Causes:** Not Applicable<br>**Sources:** Not Applicable | | |
| VAW-L66R_ZZZ01A00 | Unsegmented Portion of Watershed L66 | river | Indeterminate |
| | **Category 3A**: There is no data available within the data window of the current assessment to determine if any designated use is attained and the water was not previously listed as impaired.<br>**Impairment Causes:** Not Applicable<br>**Sources:** Not Applicable | | |
| VAW-L66R_LCC01A08 | Little Cherrystone Creek | river | Impaired |
| | **Category 4A**: The water is impaired or threatened for one or more designated uses but does not require a TMDL because the TMDL for specific pollutant(s) is complete and US EPA approved.<br>**Impairment Causes:** Escherichia coli (E. coli)<br>**Sources:** Wastes from Pets, Wildlife Other than Waterfowl, Livestock (Grazing or Feeding Operations), Unspecified Domestic Waste | | |

| | | | |
|---|---|---|---|
| VAW-L58R_SRV02A04 | Sandy River | river | Indeterminate |
| | **Category 3A**: There is no data available within the data window of the current assessment to determine if any designated use is attained and the water was not previously listed as impaired.<br>**Impairment Causes:** Not Applicable<br>**Sources:** Not Applicable | | |
| VAW-L59R_SCR02A02 | Sandy Creek | river | Impaired |
| | **Category 4A**: The water is impaired or threatened for one or more designated uses but does not require a TMDL because the TMDL for specific pollutant(s) is complete and US EPA approved.<br>**Impairment Causes:** Escherichia coli (E. coli)<br>**Sources:** Wastes from Pets, Wildlife Other than Waterfowl, Livestock (Grazing or Feeding Operations), Unspecified Domestic Waste | | |
| VAW-L65R_WOA01A10 | White Oak Creek | river | Impaired |
| | **Category 4A**: The water is impaired or threatened for one or more designated uses but does not require a TMDL because the TMDL for specific pollutant(s) is complete and US EPA approved.<br>**Impairment Causes:** Escherichia coli (E. coli)<br>**Sources:** Wastes from Pets, Wildlife Other than Waterfowl, Livestock (Grazing or Feeding Operations), Unspecified Domestic Waste | | |
| VAW-L59R_ZZZ01A00 | Unsegmented Portion of Watershed L59 | river | Indeterminate |
| | **Category 3A**: There is no data available within the data window of the current assessment to determine if any designated use is attained and the water was not previously listed as impaired.<br>**Impairment Causes:** Not Applicable<br>**Sources:** Not Applicable | | |
| VAW-L57R_TRO01A08 | Trotters Creek | river | Fully Supporting |
| | **Category 2A**: The water is supporting all designated uses for which it is monitored.<br>**Impairment Causes:** Not Applicable<br>**Sources:** Not Applicable | | |

*There are no Class VII Waters present within this user defined area.*

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## WetCAT Caveat

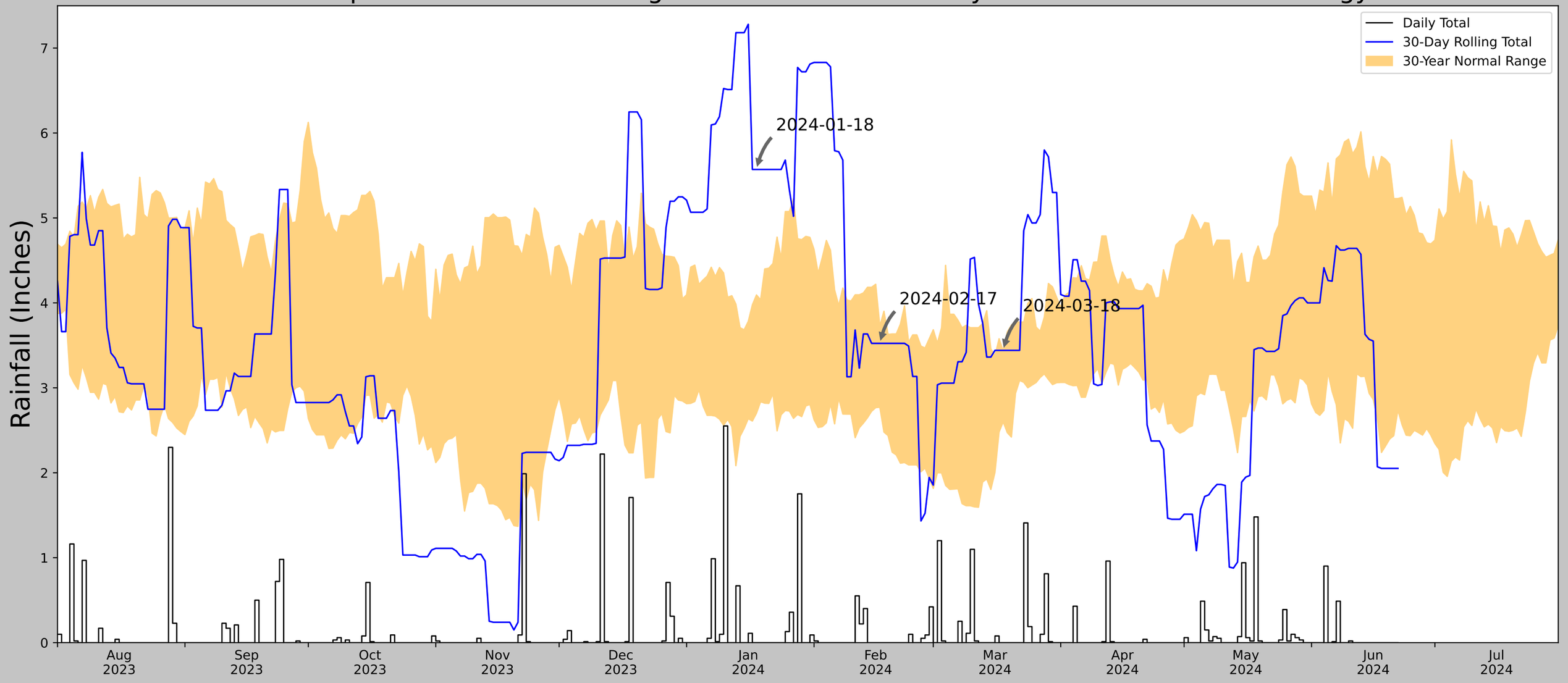
Data, maps, and reports generated through the Virginia Wetland Condition Assessment Tool (WetCAT) do not contain real-time data. Content provided via the viewer is subject to change without notice. The Center for Coastal Resources Management (CCRM) and the Virginia Department of Environmental Quality make no warranty, express or implied, as to the accuracy, completeness, or utility of this information.

# EXHIBIT 10 – ANTECEDENT PRECIPITATION TOOL

**Table 1.** APT results at the time of fieldwork and 30 days prior to fieldwork.

| Date | APT Results |
|---|---|
| 3/18/2024 | “wetter than normal” |
| 3/19/2024 through 3/22/2024 | “normal conditions” |
| 3/25/2024 through 3/27/2024 | “wetter than normal” |
| 3/28/2024 & 3/29/2024 | “normal conditions” |
| 4/1/2024 | “wetter than normal” |
| 4/2/2024 & 4/3/2024 | “normal conditions” |
| 4/4/2024 & 4/5/2024 | “wetter than normal” |
| 4/8/2024 through 4/12/2024 | “normal conditions” |
| 4/15/2024 through 4/19/2024 | “normal conditions” |
| 4/22/2024 through 4/26/2024 | “normal conditions” |
| 4/29/2024 & 4/30/2024 | “normal conditions” |
| 5/1/2024 | “normal conditions” |
| 5/2/2024 & 5/3/2024 | “drier than normal” |
| 5/4/2024 | “normal conditions” |
| 5/6/2024 through 5/10/2024 | “drier than normal” |
| 5/13/2024 & 5/14/2024 | “drier than normal” |
| 5/15/2024 | “normal conditions” |
| 5/16/2024 | “drier than normal” |
| 5/17/2024 | “normal conditions” |
| 5/20/2024 through 5/24/2024 | “normal conditions” |
| 5/28/2024 through 5/31/2024 | “normal conditions” |
| 6/13/2024 & 6/14/2024 | “normal conditions” |
| 7/7/2024 & 7/8/2024 | “drier than normal” |
| 7/25/2024 & 7/26/2024 | “normal conditions” |
| 8/13/2024 & 8/14/2024 | “normal conditions” |
| 8/15/2024 | “wetter than normal” |
| 8/16/2024 | “normal conditions” |
| 8/19/2024 & 8/20/2024 | “normal conditions” |
| 8/21/2024 | “wetter than normal” |
| 10/07/2024 | “wetter than normal” |
| 10/08/2024 & 10/09/2024 | “normal conditions” |
| 10/15/2024 & 10/16/2024 | “normal conditions” |
| 10/28/2024 | “normal conditions” |
| 11/13/2024 through 11/15/2024 | “normal conditions” |
| 11/19/2024 through 11/21/2024 | “normal conditions” |
| 1/8/2025 through 1/10/2025 | “drier than normal” |
| 1/14/2025 | “drier than normal” |
| 2/24/2025 through 2/27/2025 | “normal conditions” |
| 3/31/2025 | “normal conditions” |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-03-18 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-03-18 | 2.598819 | 3.436614 | 3.440945 | Wet | 3 | 3 | 9 |
| 2024-02-17 | 2.771654 | 3.726772 | 3.523622 | Normal | 2 | 2 | 4 |
| 2024-01-18 | 2.700787 | 4.094095 | 5.570866 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Wetter than Normal - 16 |

US Army Corps of Engineers

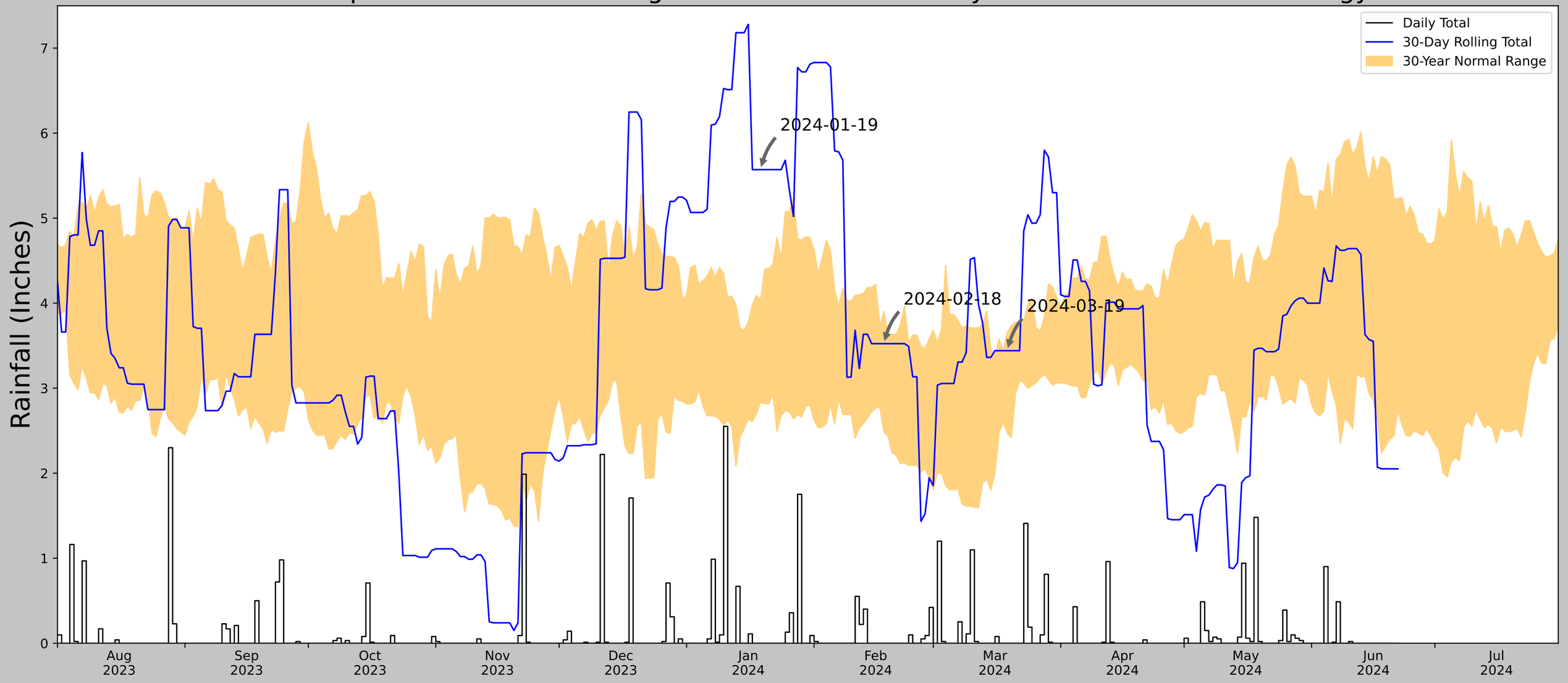
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-03-19 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-03-19 | 2.472047 | 3.657874 | 3.440945 | Normal | 2 | 3 | 6 |
| 2024-02-18 | 2.47874 | 3.902362 | 3.523622 | Normal | 2 | 2 | 4 |
| 2024-01-19 | 2.836614 | 4.036221 | 5.570866 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 13 |

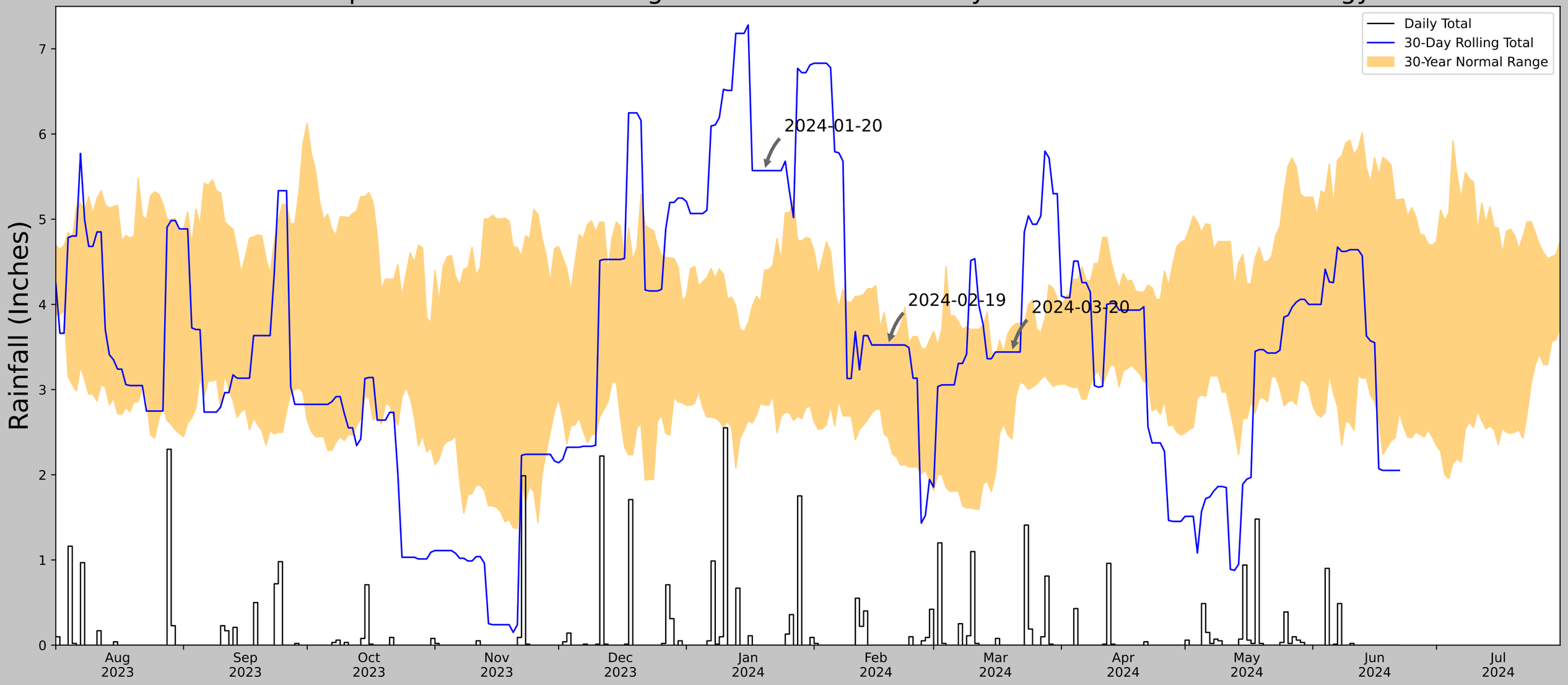
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-03-20 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-03-20 | 2.420079 | 3.737795 | 3.440945 | Normal | 2 | 3 | 6 |
| 2024-02-19 | 2.437402 | 3.629134 | 3.523622 | Normal | 2 | 2 | 4 |
| 2024-01-20 | 2.818898 | 4.4 | 5.570866 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 13 |

US Army Corps of Engineers

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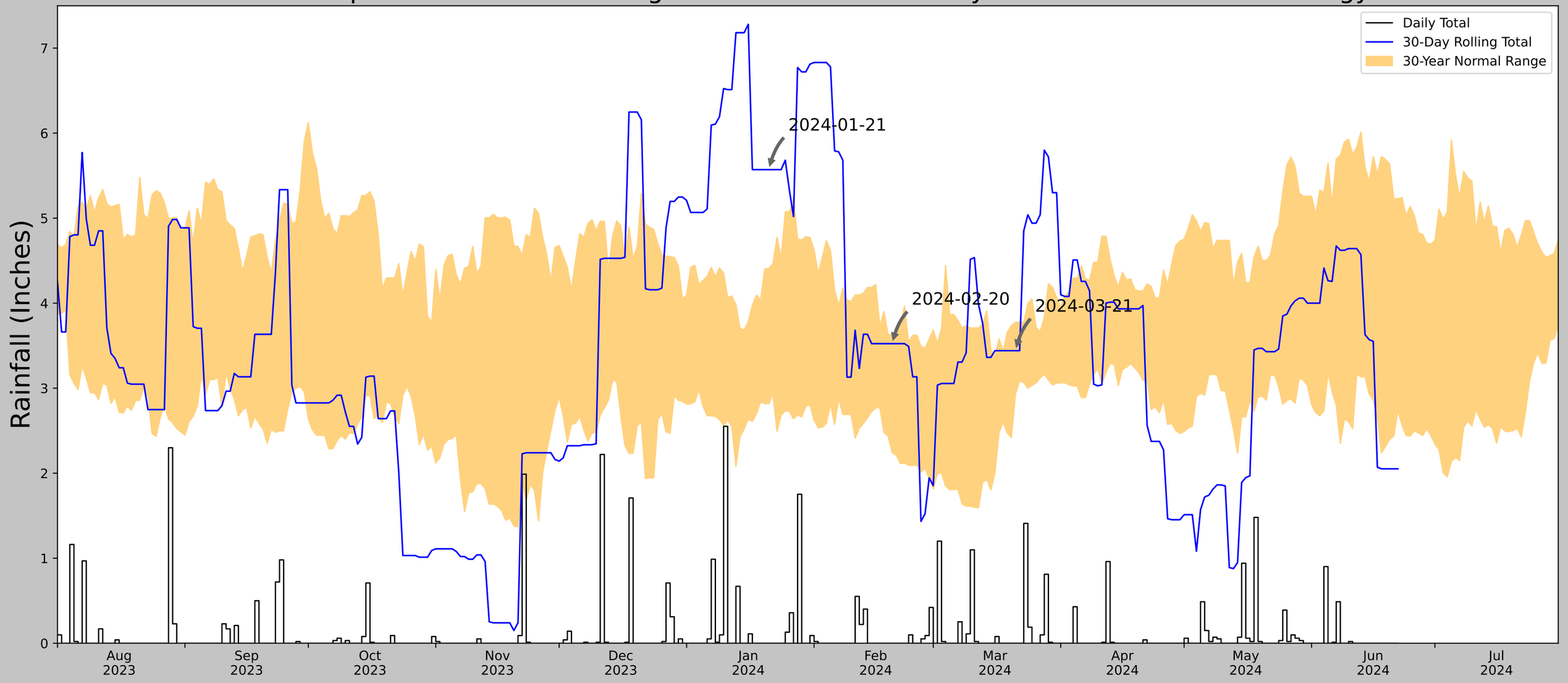
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-03-21 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-03-21 | 2.935039 | 3.77441 | 3.440945 | Normal | 2 | 3 | 6 |
| 2024-02-20 | 2.24252 | 3.634252 | 3.523622 | Normal | 2 | 2 | 4 |
| 2024-01-21 | 2.816536 | 4.408268 | 5.570866 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 13 |

US Army Corps of Engineers

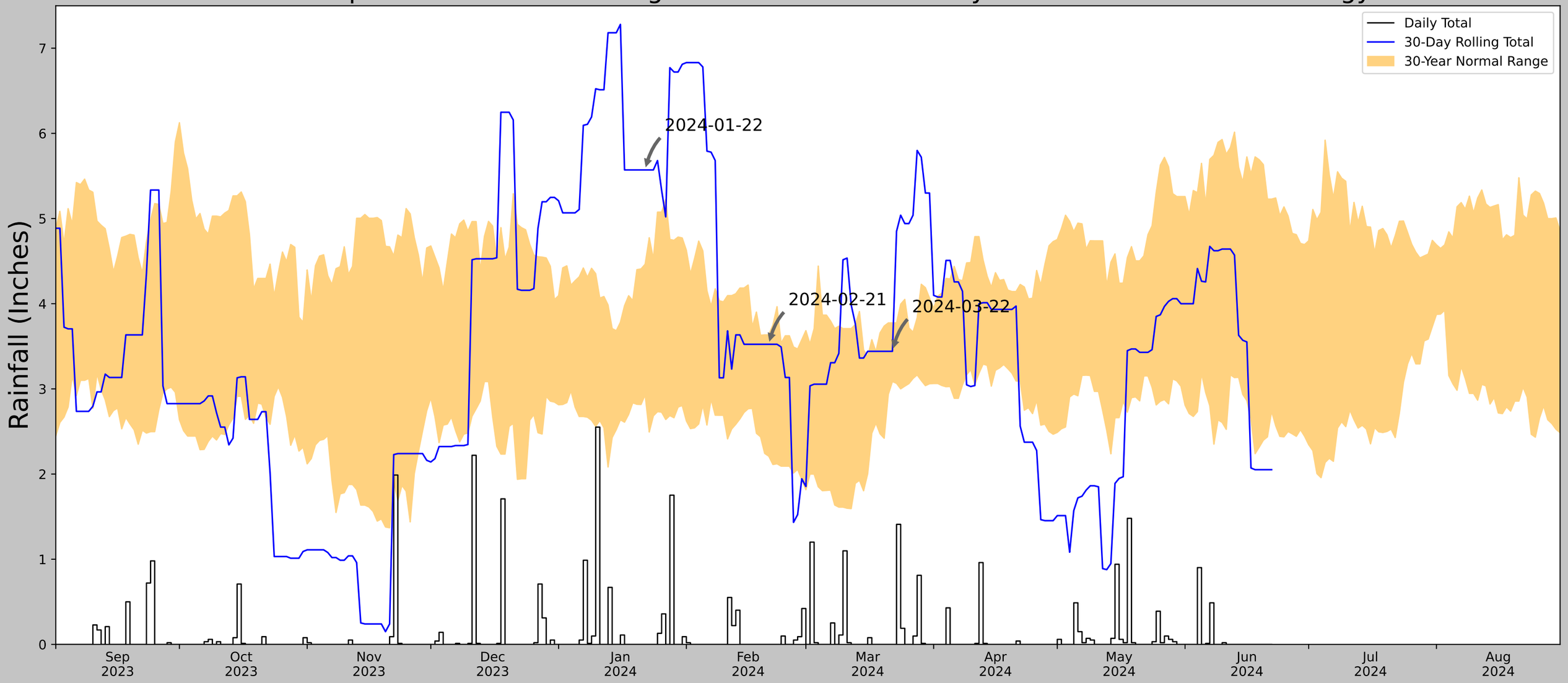
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-03-22 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-03-22 | 3.086614 | 3.77441 | 3.440945 | Normal | 2 | 3 | 6 |
| 2024-02-21 | 2.209449 | 3.634252 | 3.523622 | Normal | 2 | 2 | 4 |
| 2024-01-22 | 2.930315 | 4.46378 | 5.570866 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 13 |

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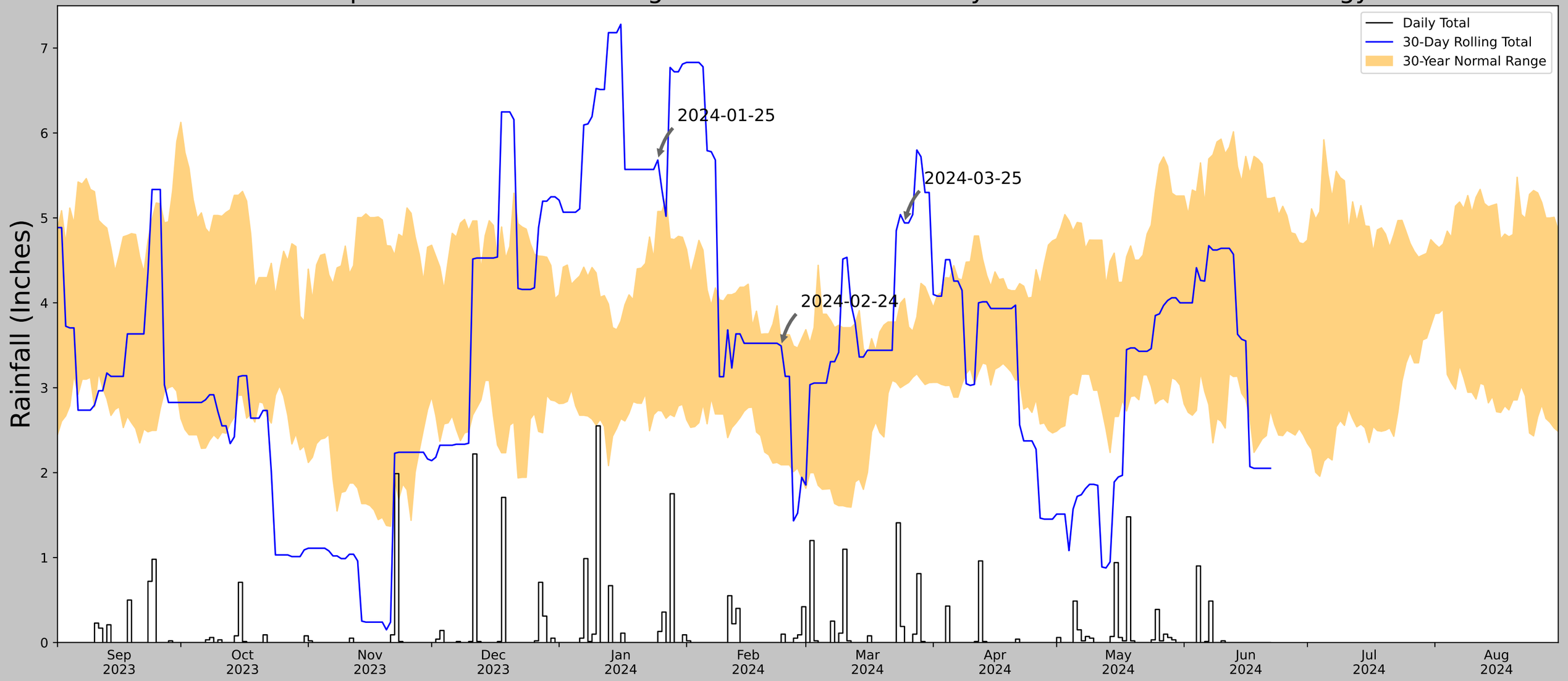
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-03-25 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-03-25 | 3.03189 | 4.050788 | 4.940945 | Wet | 3 | 3 | 9 |
| 2024-02-24 | 2.09252 | 3.537402 | 3.492126 | Normal | 2 | 2 | 4 |
| 2024-01-25 | 2.732677 | 5.075591 | 5.681103 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Wetter than Normal - 16 |

US Army Corps of Engineers

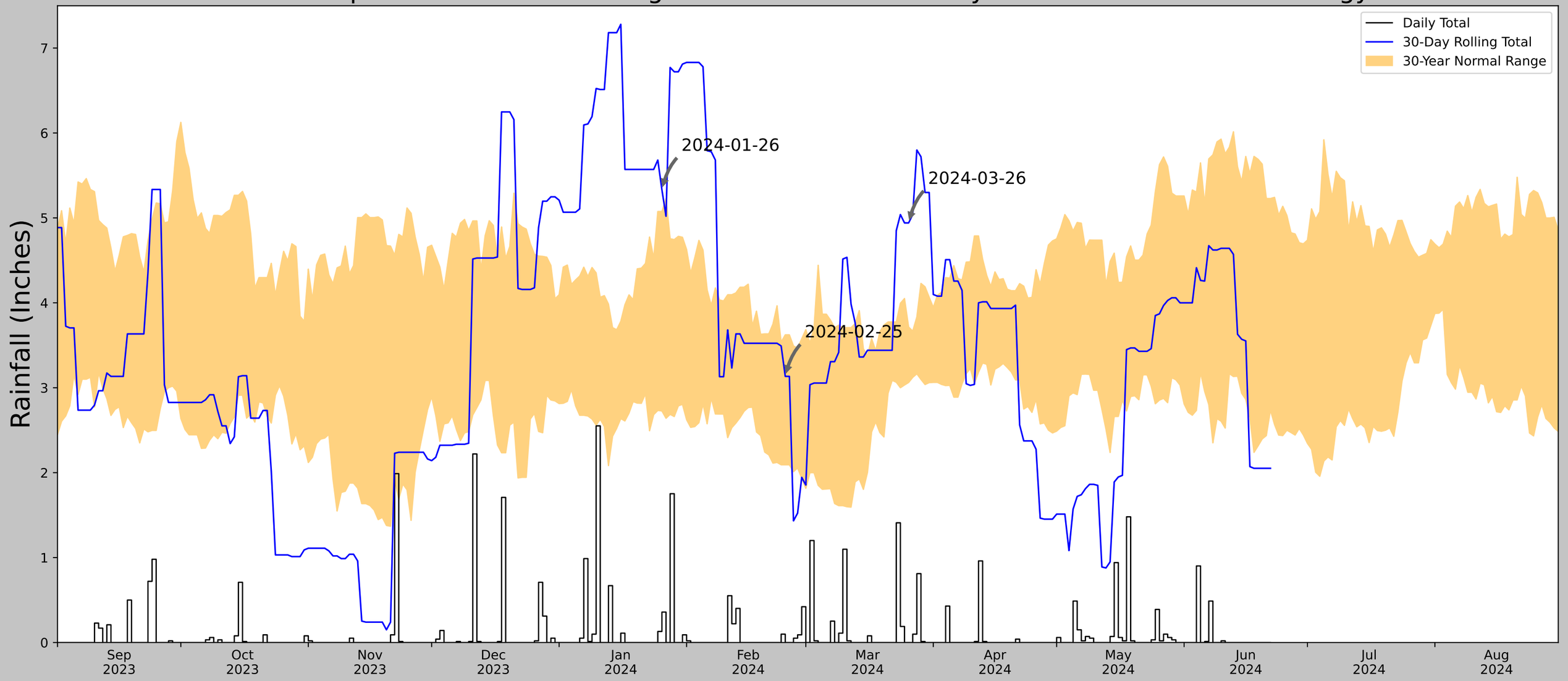
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-03-26 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-03-26 | 3.061811 | 3.715354 | 4.940945 | Wet | 3 | 3 | 9 |
| 2024-02-25 | 2.09252 | 3.623622 | 3.133858 | Normal | 2 | 2 | 4 |
| 2024-01-26 | 2.726772 | 5.075591 | 5.330709 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Wetter than Normal - 16 |

US Army Corps of Engineers

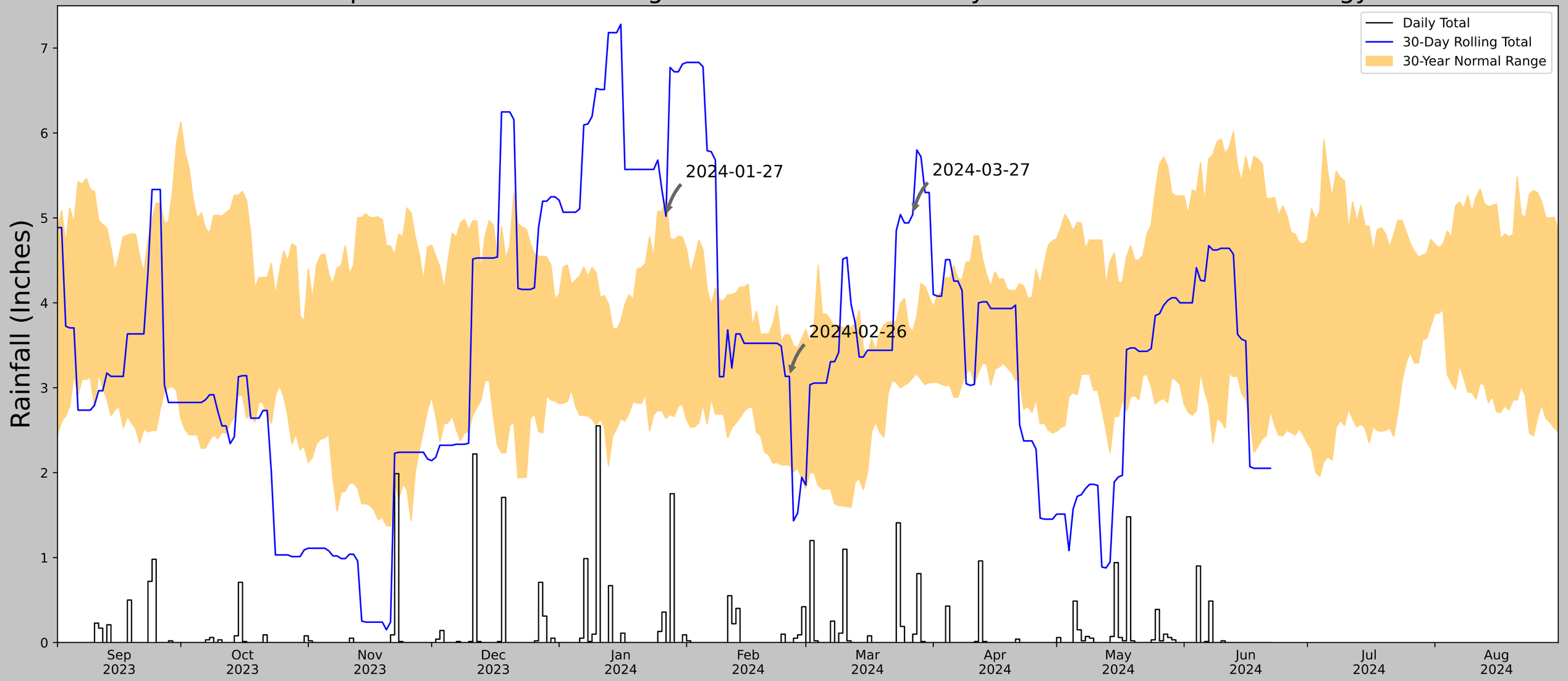
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-03-27 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-03-27 | 3.122047 | 3.666536 | 5.03937 | Wet | 3 | 3 | 9 |
| 2024-02-26 | 2.09252 | 3.623622 | 3.133858 | Normal | 2 | 2 | 4 |
| 2024-01-27 | 2.640158 | 5.225197 | 5.019685 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Wetter than Normal - 15 |

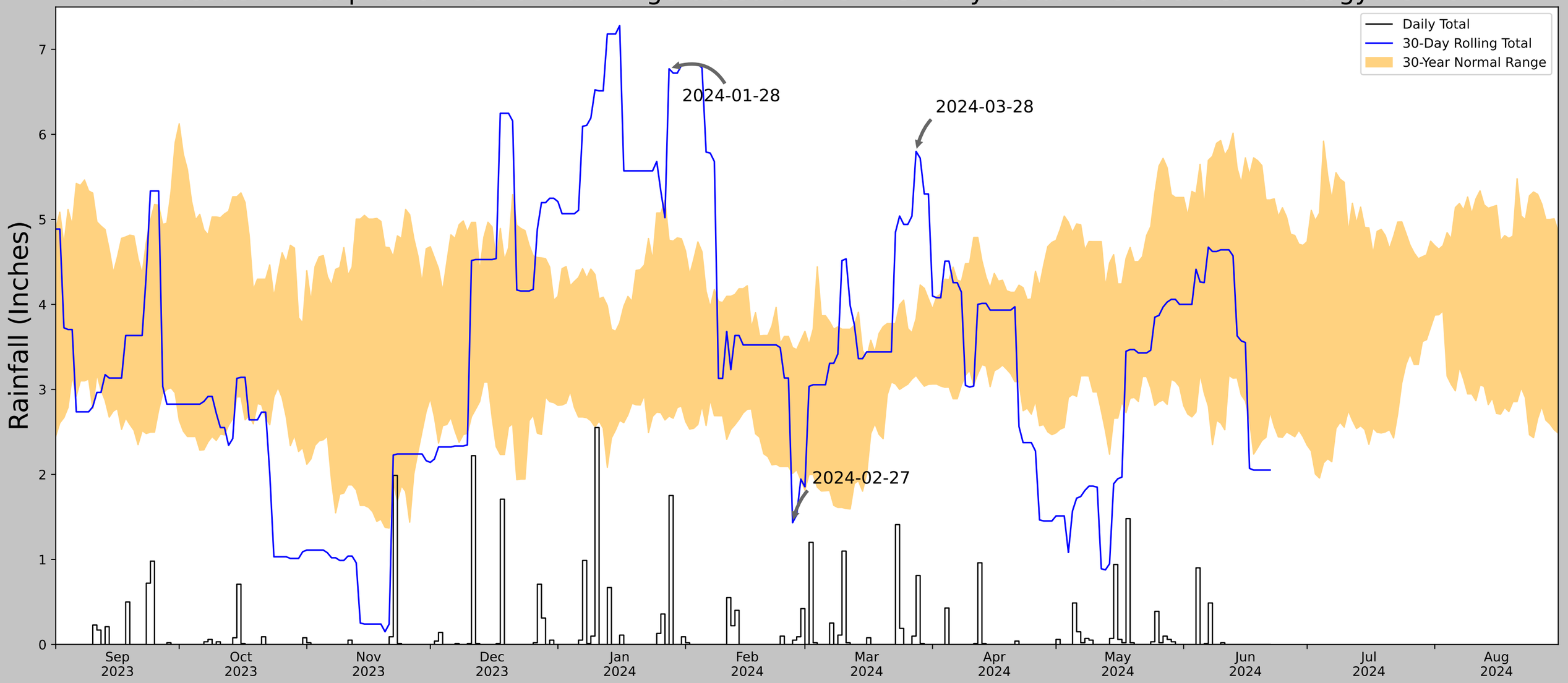
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-03-28 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-03-28 | 3.164173 | 3.833465 | 5.799213 | Wet | 3 | 3 | 9 |
| 2024-02-27 | 2.011417 | 3.491339 | 1.433071 | Dry | 1 | 2 | 2 |
| 2024-01-28 | 2.686614 | 4.754725 | 6.771654 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 14 |

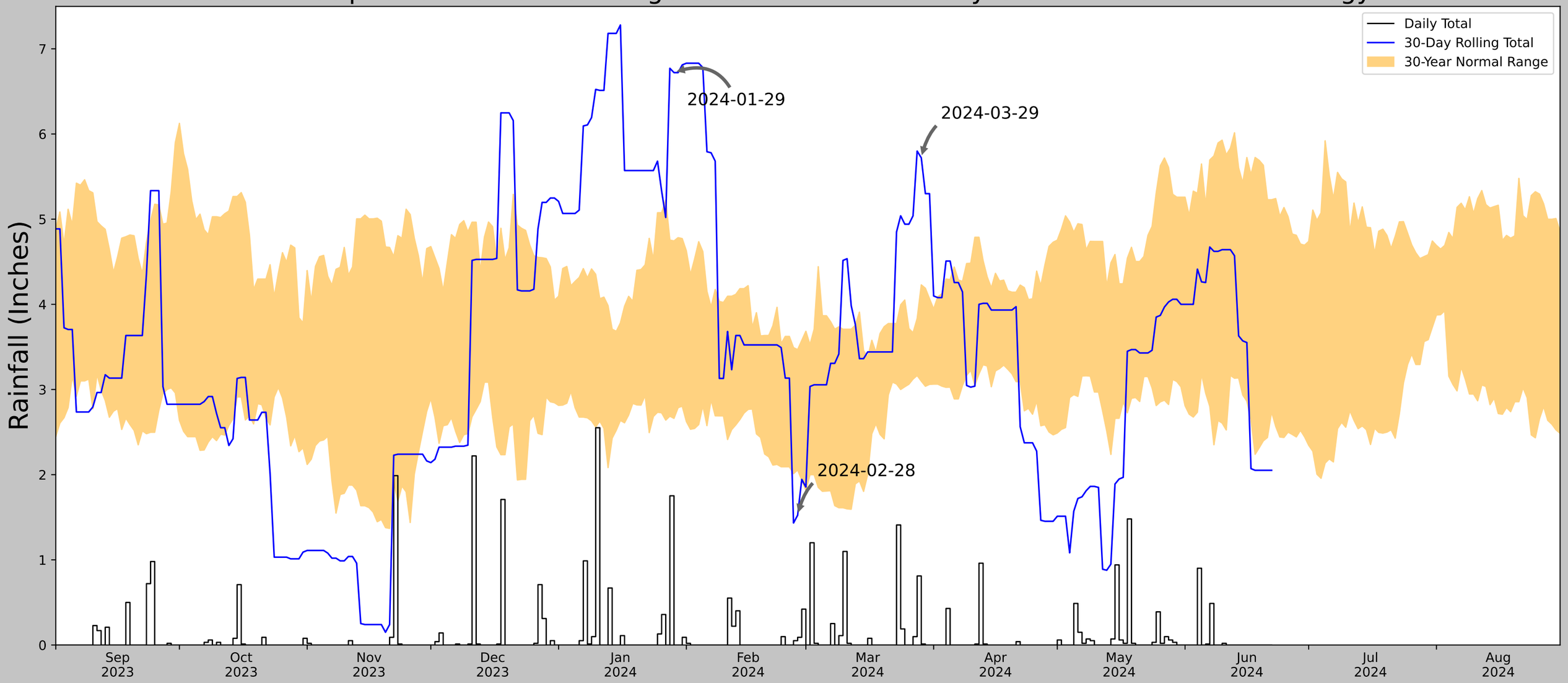
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-03-29 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-03-29 | 3.098425 | 4.22874 | 5.720473 | Wet | 3 | 3 | 9 |
| 2024-02-28 | 2.055512 | 3.468504 | 1.523622 | Dry | 1 | 2 | 2 |
| 2024-01-29 | 2.66063 | 4.744488 | 6.720473 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 14 |

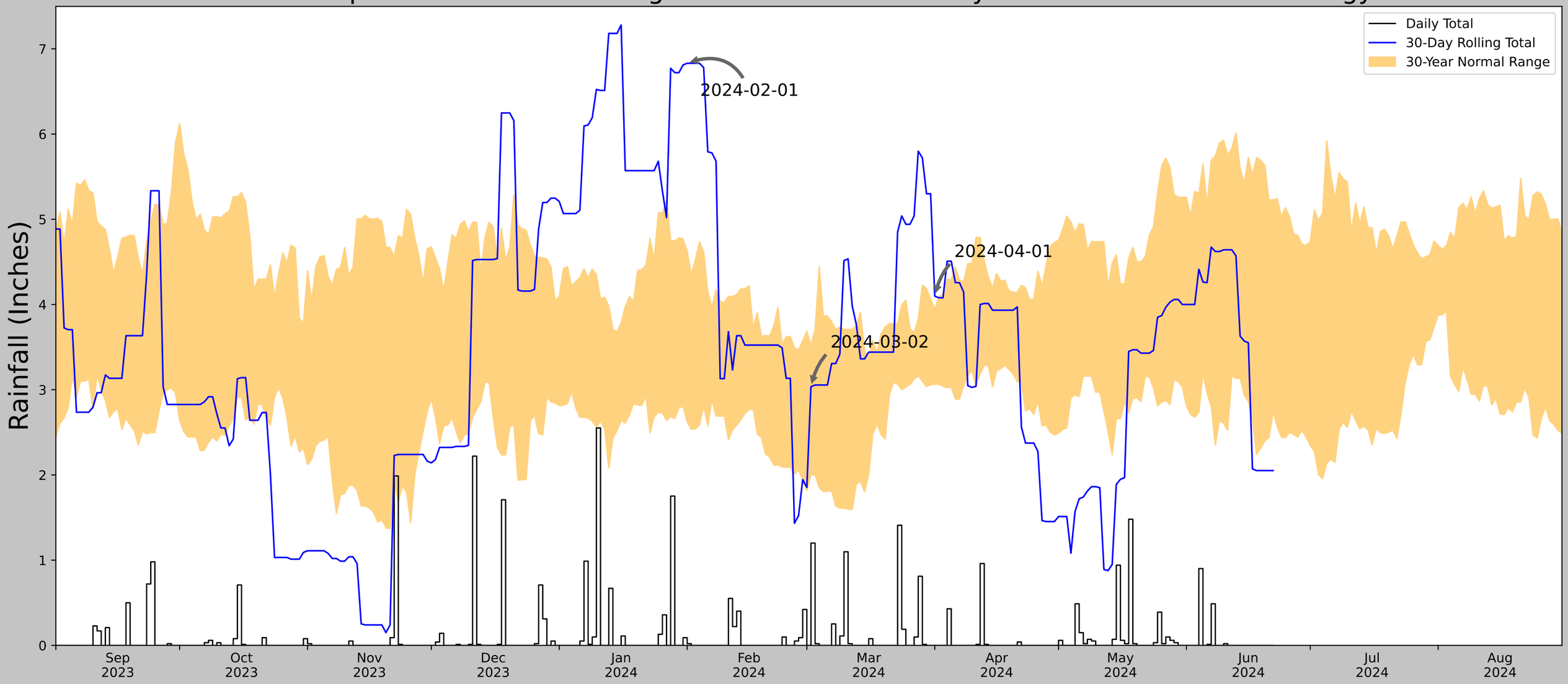
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-01 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-01 | 3.062992 | 3.946063 | 4.098425 | Wet | 3 | 3 | 9 |
| 2024-03-02 | 1.999606 | 3.526772 | 3.035433 | Normal | 2 | 2 | 4 |
| 2024-02-01 | 2.624016 | 4.62874 | 6.830709 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Wetter than Normal - 16 |

US Army Corps of Engineers

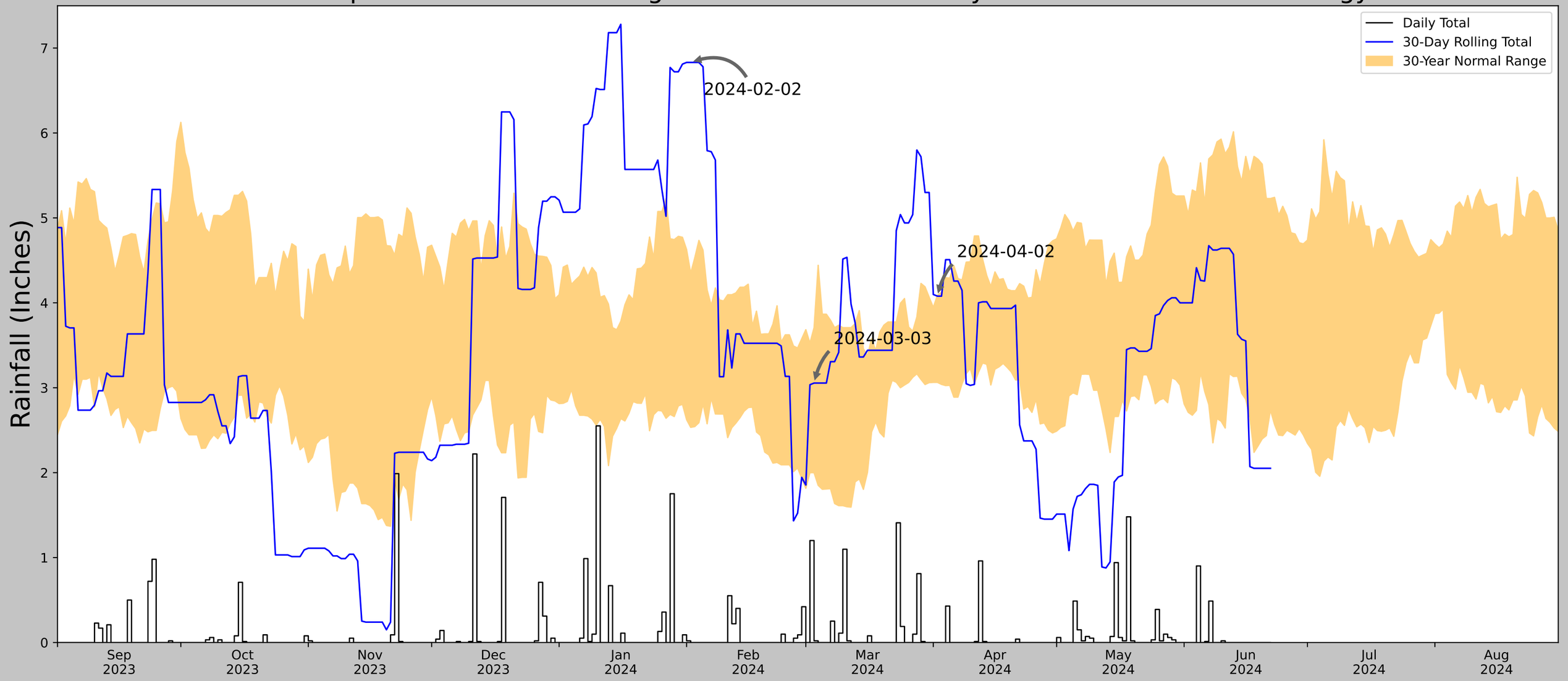
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-02 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-02 | 3.062992 | 4.088583 | 4.07874 | Normal | 2 | 3 | 6 |
| 2024-03-03 | 1.999606 | 3.70748 | 3.055118 | Normal | 2 | 2 | 4 |
| 2024-02-02 | 2.533071 | 4.349213 | 6.830709 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 13 |

US Army Corps of Engineers

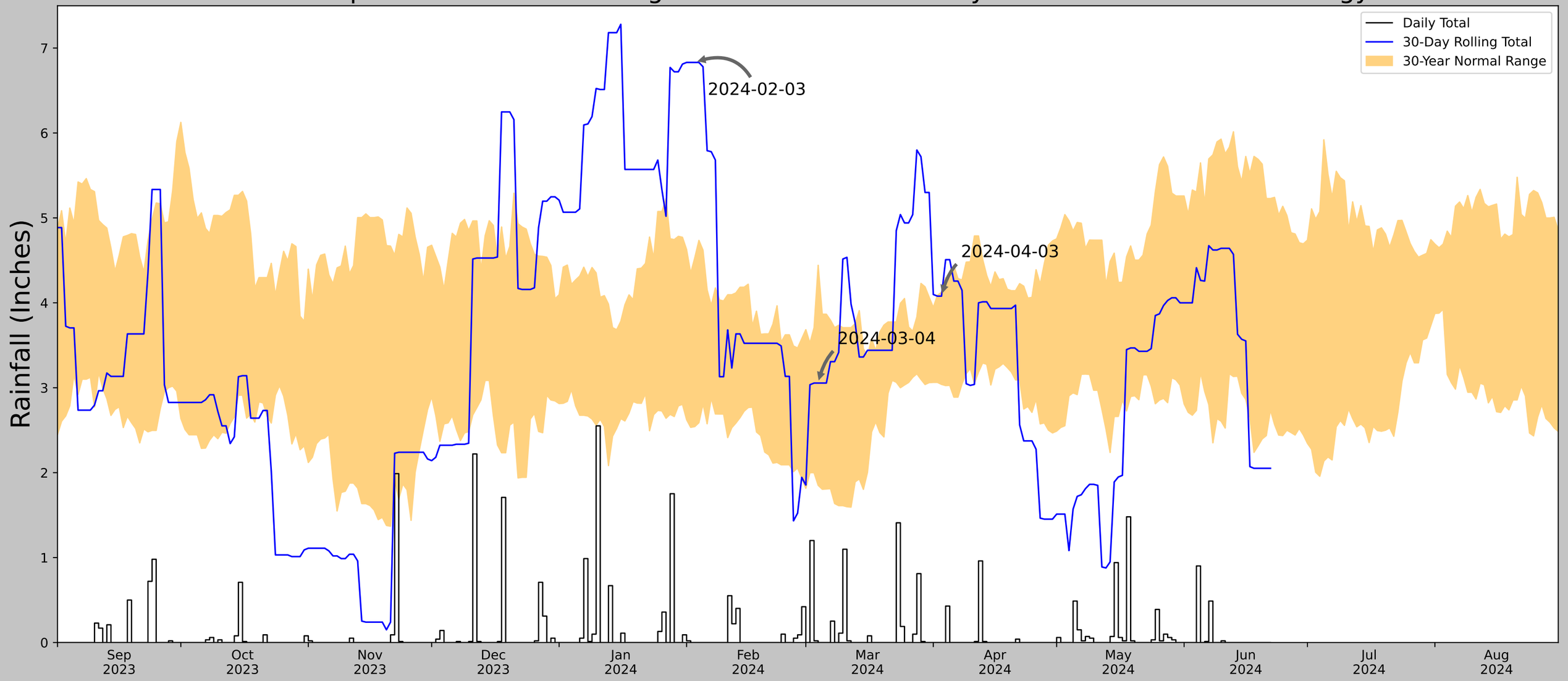
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-03 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-03 | 3.03937 | 4.124016 | 4.07874 | Normal | 2 | 3 | 6 |
| 2024-03-04 | 1.850787 | 4.44252 | 3.055118 | Normal | 2 | 2 | 4 |
| 2024-02-03 | 2.54252 | 4.533071 | 6.830709 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 13 |

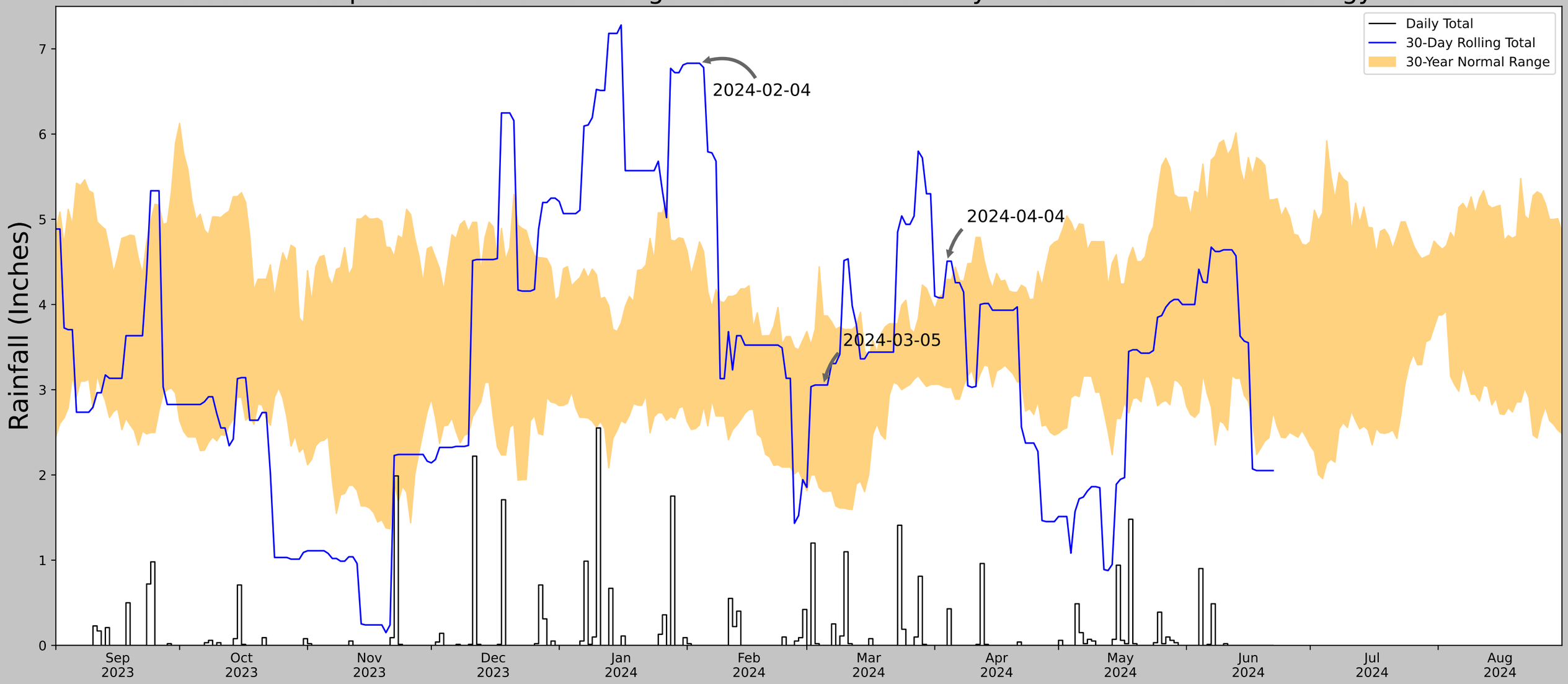
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-04 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-04 | 3.025197 | 4.296851 | 4.507874 | Wet | 3 | 3 | 9 |
| 2024-03-05 | 1.804724 | 3.866142 | 3.055118 | Normal | 2 | 2 | 4 |
| 2024-02-04 | 2.588189 | 4.735827 | 6.830709 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Wetter than Normal - 16 |

US Army Corps of Engineers

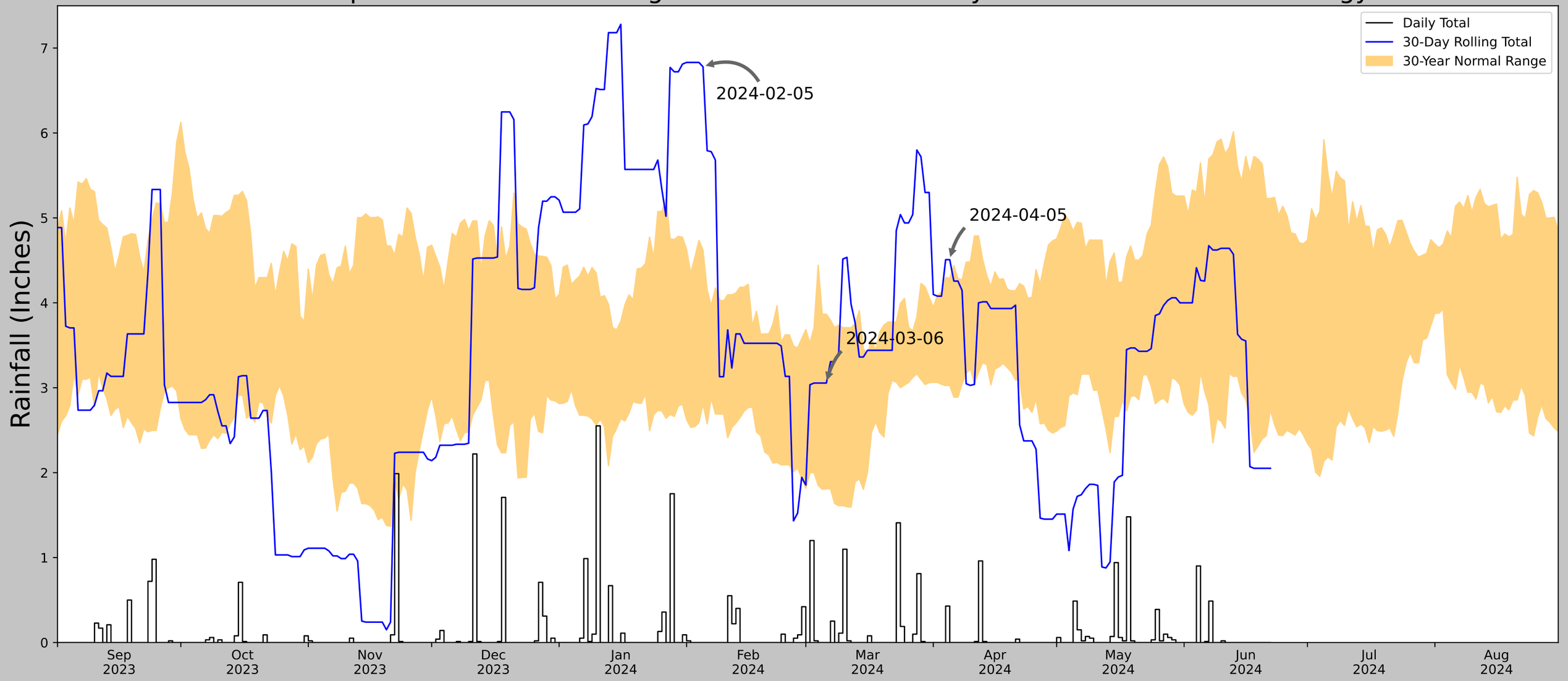
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-05 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-05 | 3.027953 | 4.290945 | 4.507874 | Wet | 3 | 3 | 9 |
| 2024-03-06 | 1.80748 | 3.866142 | 3.055118 | Normal | 2 | 2 | 4 |
| 2024-02-05 | 2.809055 | 4.620079 | 6.779528 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Wetter than Normal - 16 |

US Army Corps of Engineers

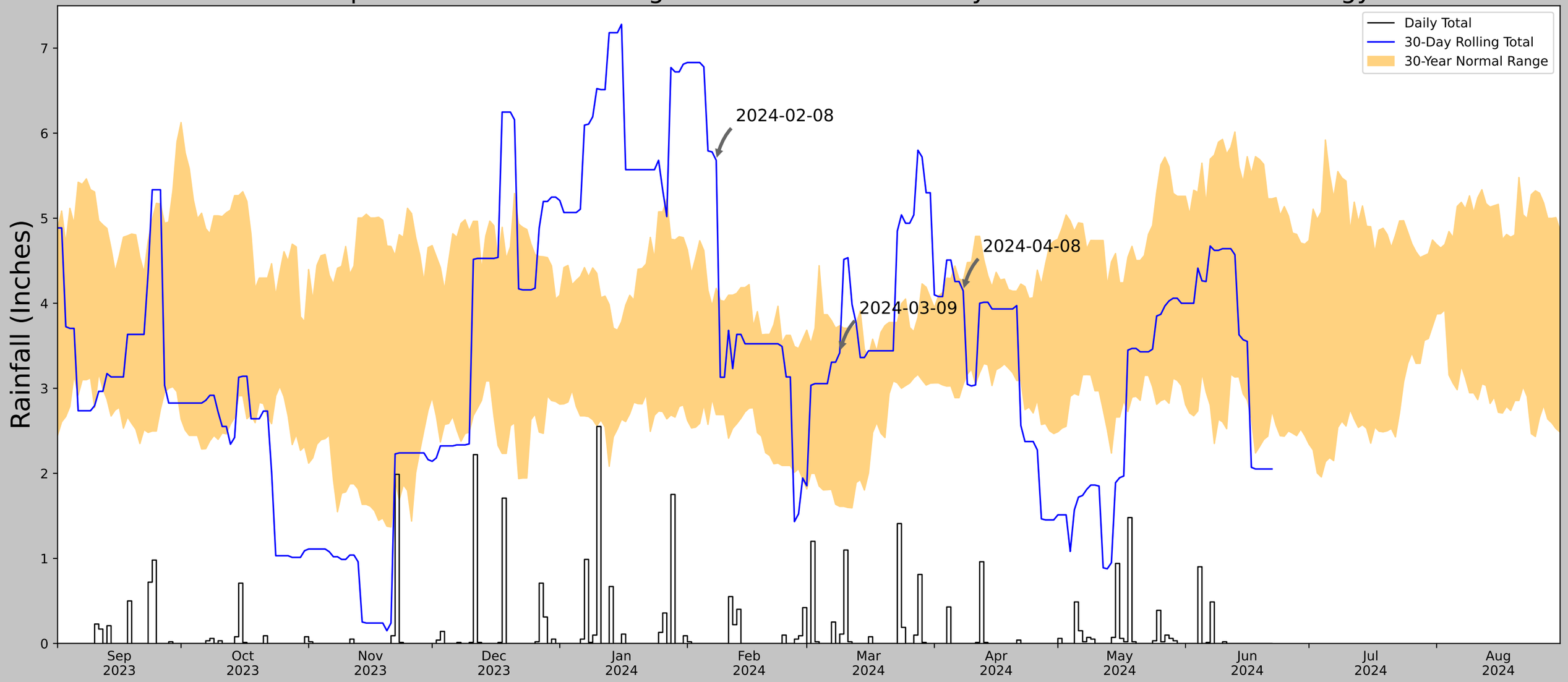
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-08 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-08 | 3.04685 | 4.268898 | 4.145669 | Normal | 2 | 3 | 6 |
| 2024-03-09 | 1.611417 | 3.736221 | 3.417323 | Normal | 2 | 2 | 4 |
| 2024-02-08 | 2.690945 | 4.175591 | 5.681103 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 13 |

US Army Corps of Engineers

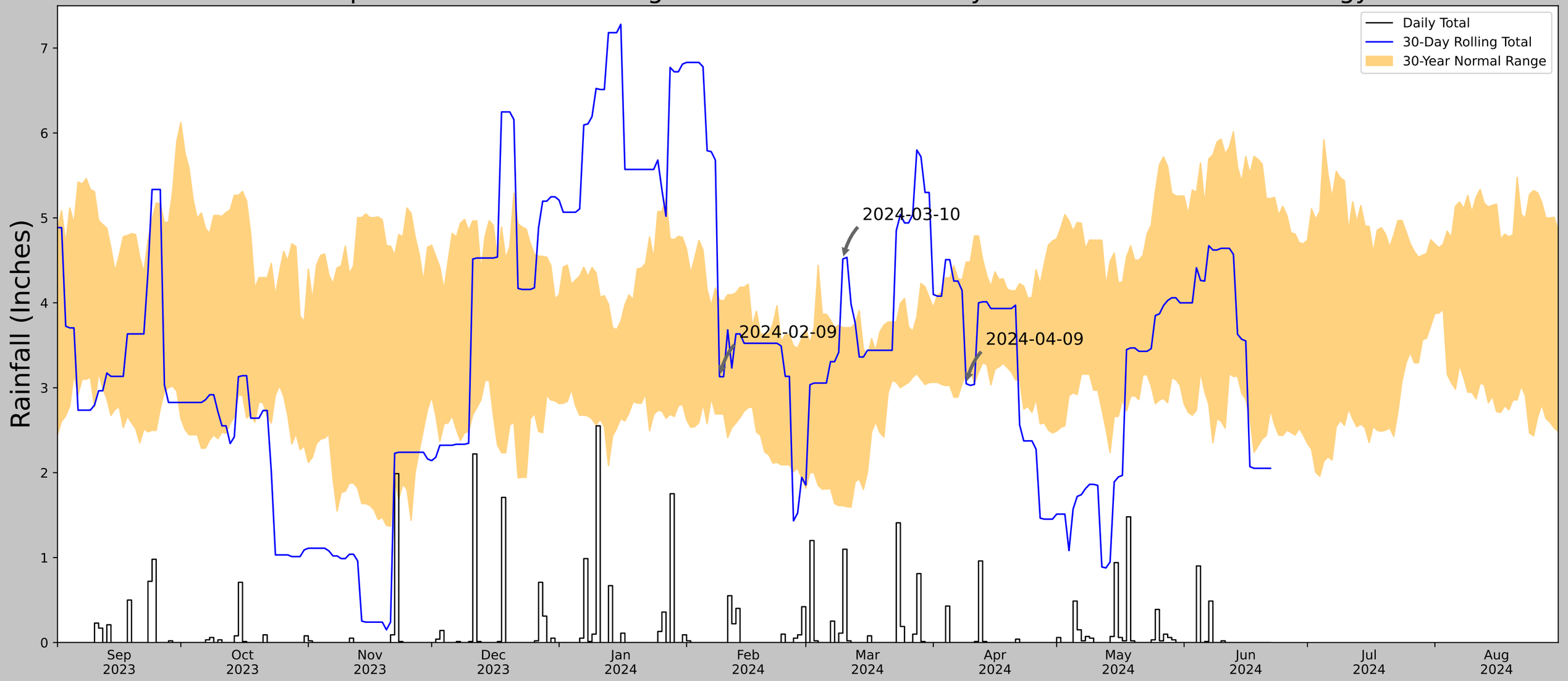
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-09 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-09 | 3.164961 | 4.479134 | 3.047244 | Dry | 1 | 3 | 3 |
| 2024-03-10 | 1.611417 | 3.707874 | 4.515748 | Wet | 3 | 2 | 6 |
| 2024-02-09 | 2.690158 | 4.033858 | 3.129921 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

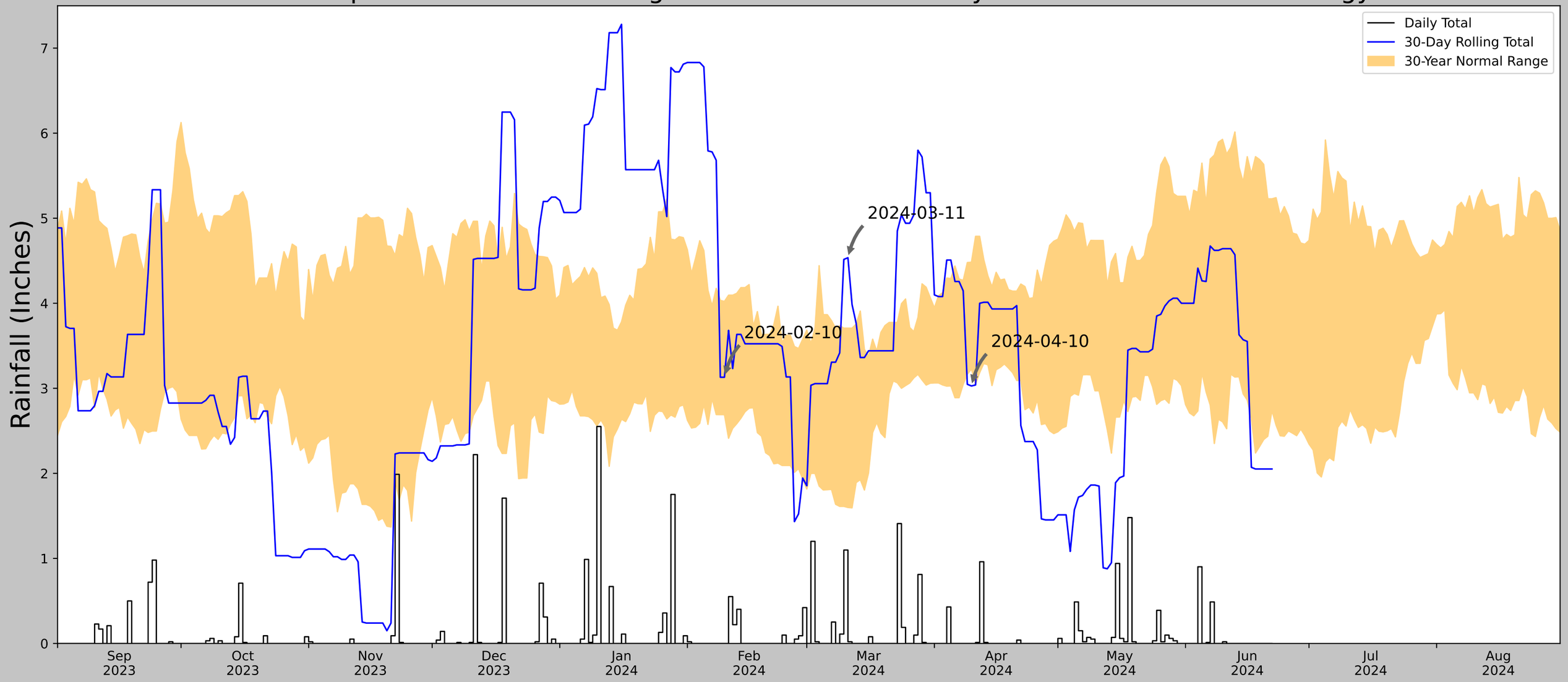
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-10 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-10 | 3.227165 | 4.482677 | 3.027559 | Dry | 1 | 3 | 3 |
| 2024-03-11 | 1.598425 | 3.707874 | 4.535433 | Wet | 3 | 2 | 6 |
| 2024-02-10 | 2.690158 | 4.022047 | 3.129921 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

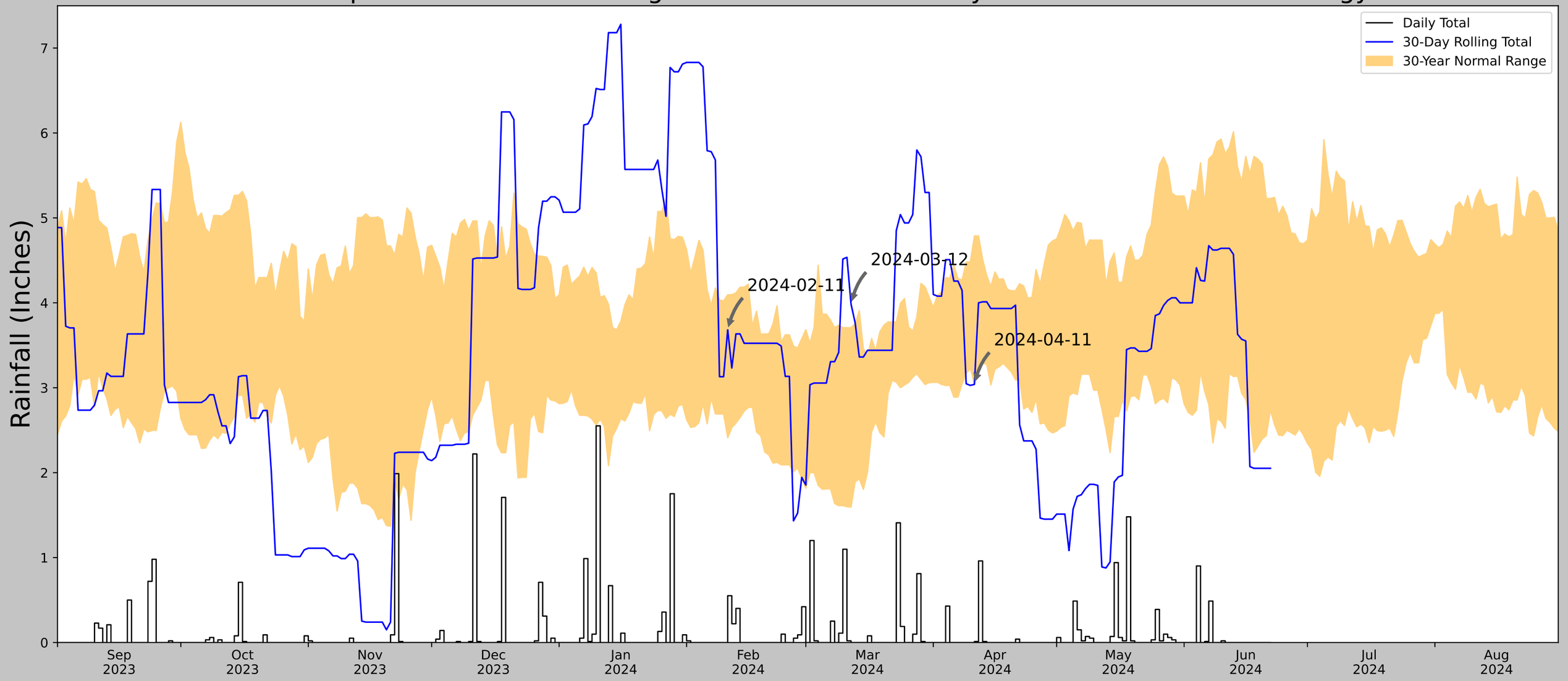
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-11 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-11 | 3.051181 | 4.787795 | 3.03937 | Dry | 1 | 3 | 3 |
| 2024-03-12 | 1.594095 | 3.707874 | 3.984252 | Wet | 3 | 2 | 6 |
| 2024-02-11 | 2.412205 | 4.095276 | 3.681102 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

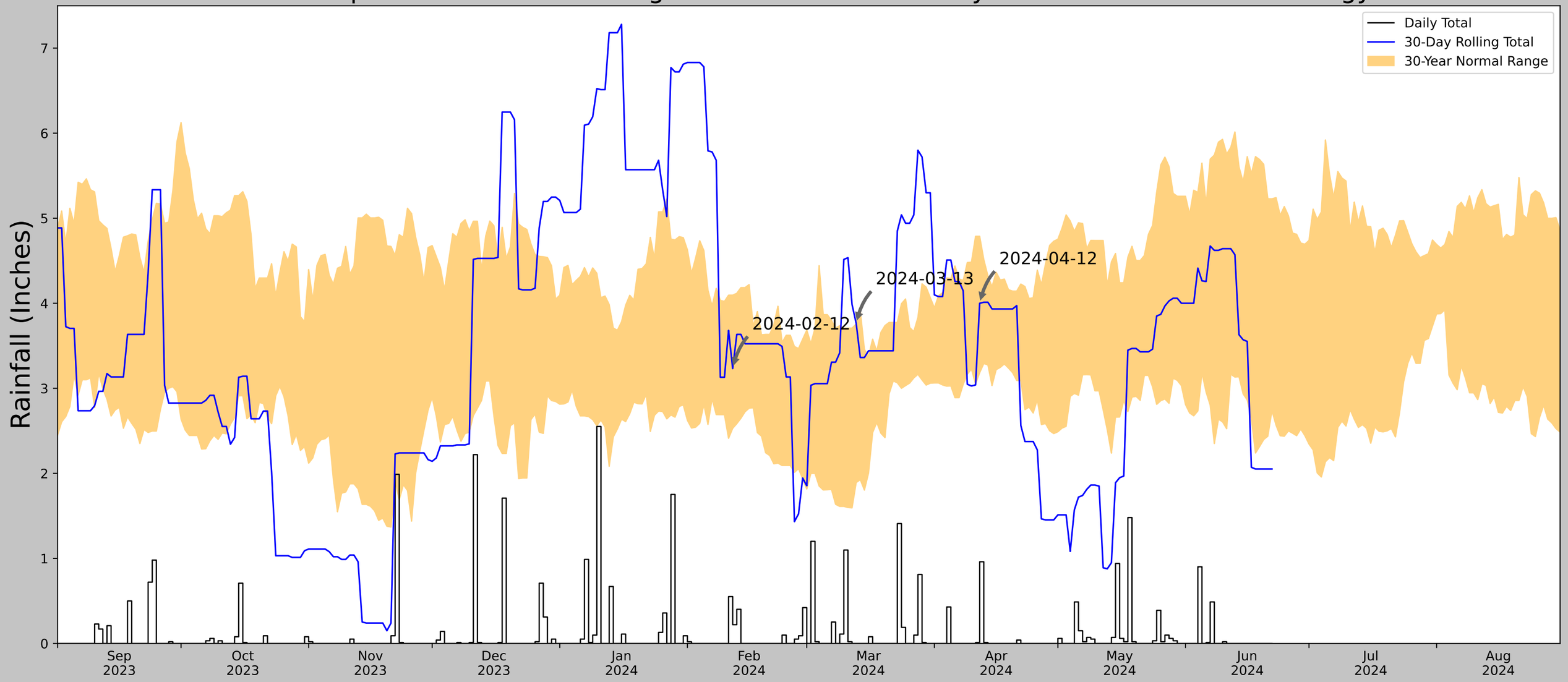
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-12 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-12 | 3.183465 | 4.787795 | 4.0 | Normal | 2 | 3 | 6 |
| 2024-03-13 | 1.891732 | 3.756299 | 3.76378 | Wet | 3 | 2 | 6 |
| 2024-02-12 | 2.529134 | 4.095276 | 3.232284 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 14 |

US Army Corps of Engineers

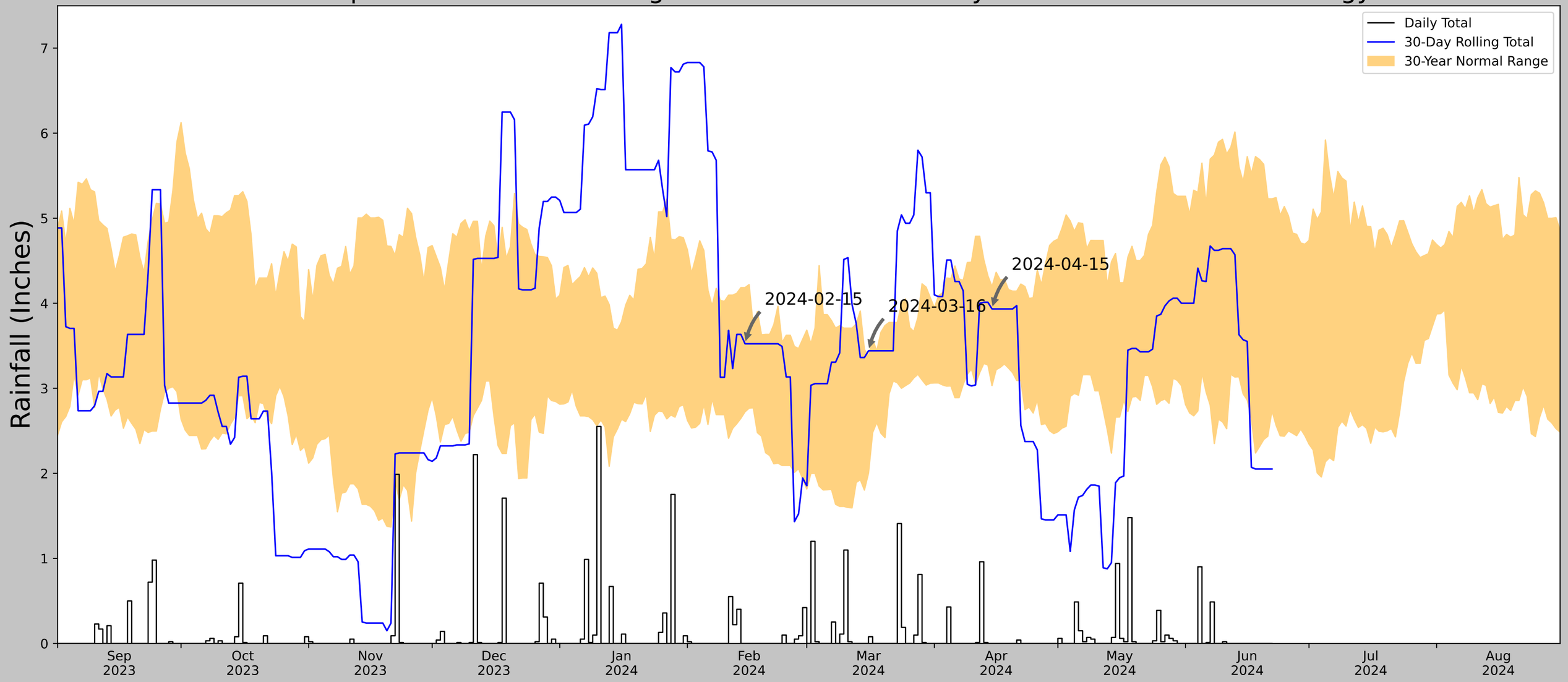
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-15 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-15 | 3.03189 | 4.193701 | 3.933071 | Normal | 2 | 3 | 6 |
| 2024-03-16 | 2.00315 | 3.37874 | 3.440945 | Wet | 3 | 2 | 6 |
| 2024-02-15 | 2.723622 | 4.184252 | 3.523622 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 14 |

US Army Corps of Engineers

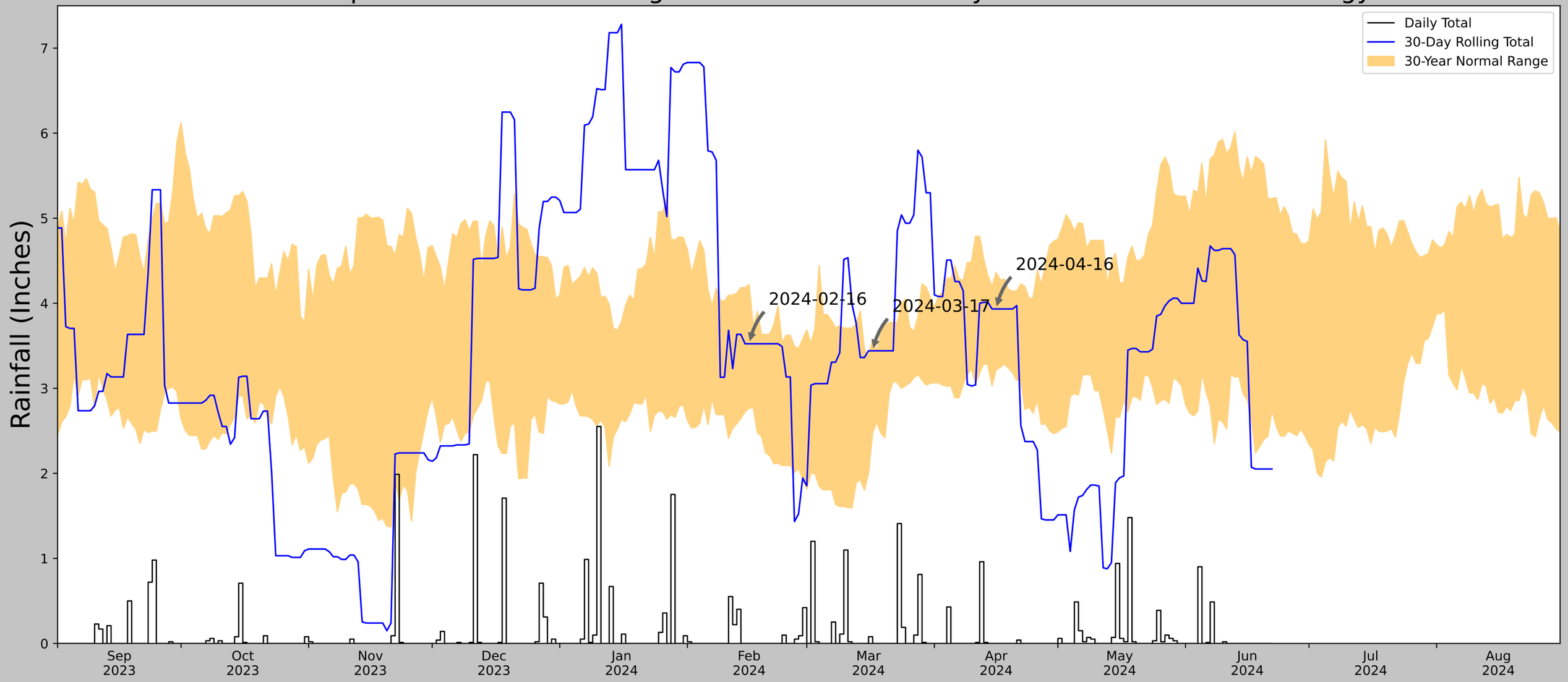
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-16 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-16 | 3.218504 | 4.364567 | 3.933071 | Normal | 2 | 3 | 6 |
| 2024-03-17 | 2.479528 | 3.578347 | 3.440945 | Normal | 2 | 2 | 4 |
| 2024-02-16 | 2.766536 | 4.219685 | 3.523622 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 12 |

US Army Corps of Engineers

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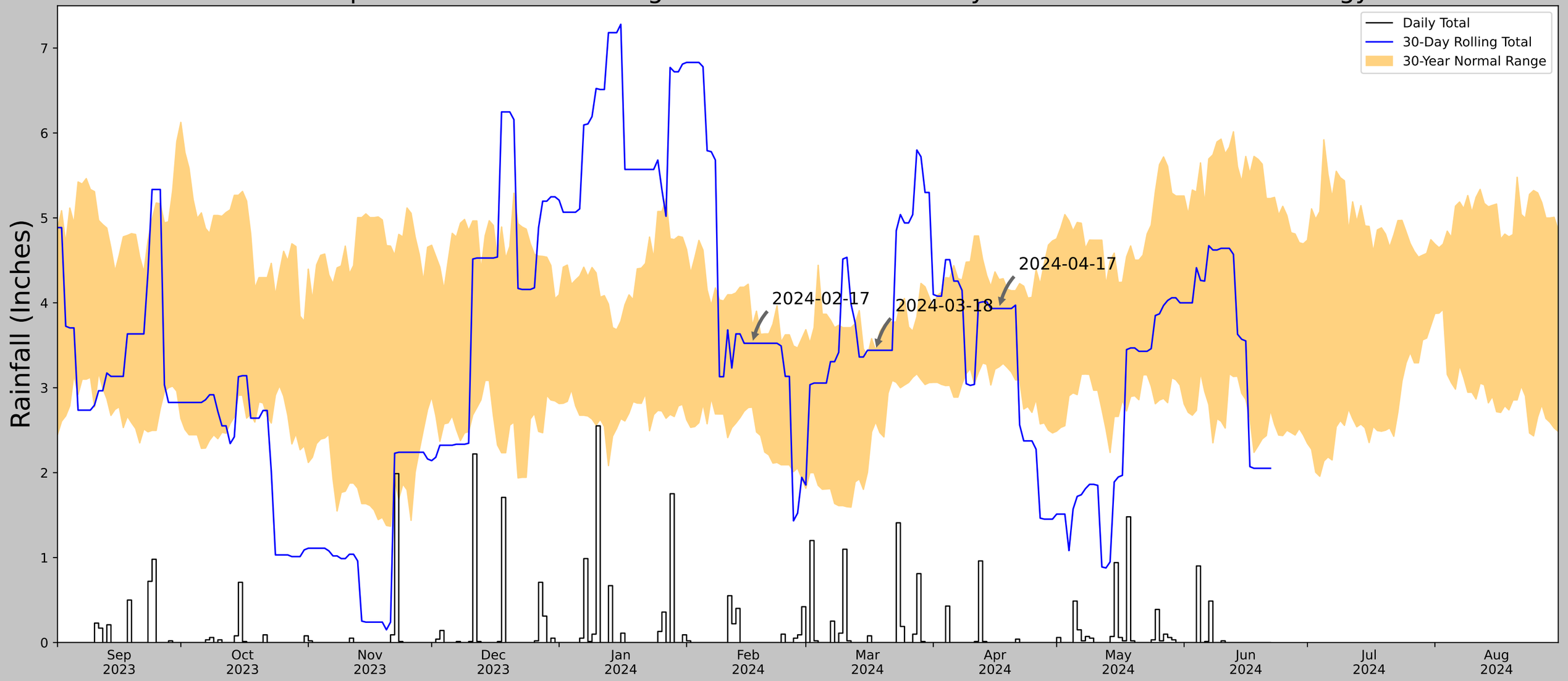
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-17 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-17 | 3.246063 | 4.273622 | 3.933071 | Normal | 2 | 3 | 6 |
| 2024-03-18 | 2.598819 | 3.436614 | 3.440945 | Wet | 3 | 2 | 6 |
| 2024-02-17 | 2.771654 | 3.726772 | 3.523622 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 14 |

US Army Corps of Engineers

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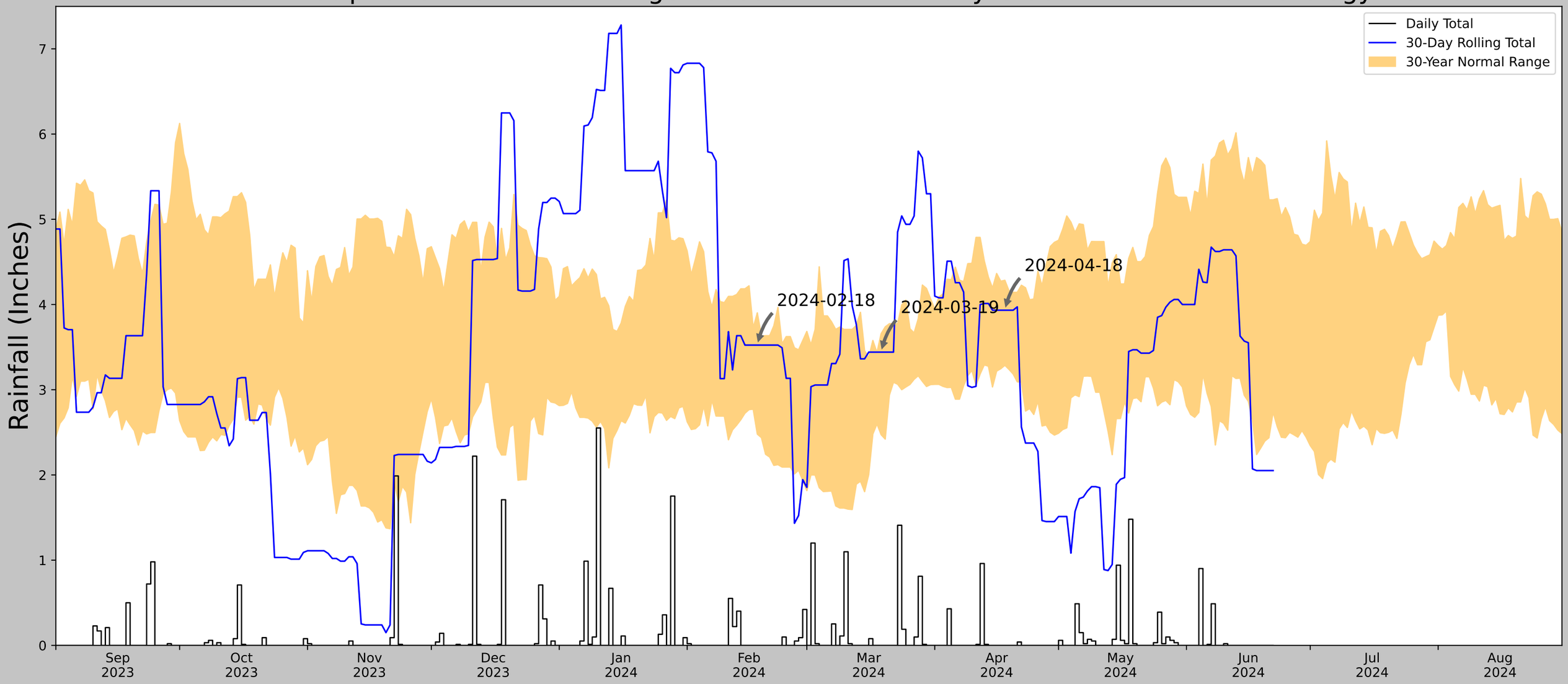
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-18 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-18 | 3.286614 | 4.284252 | 3.933071 | Normal | 2 | 3 | 6 |
| 2024-03-19 | 2.472047 | 3.657874 | 3.440945 | Normal | 2 | 2 | 4 |
| 2024-02-18 | 2.47874 | 3.902362 | 3.523622 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 12 |

US Army Corps of Engineers

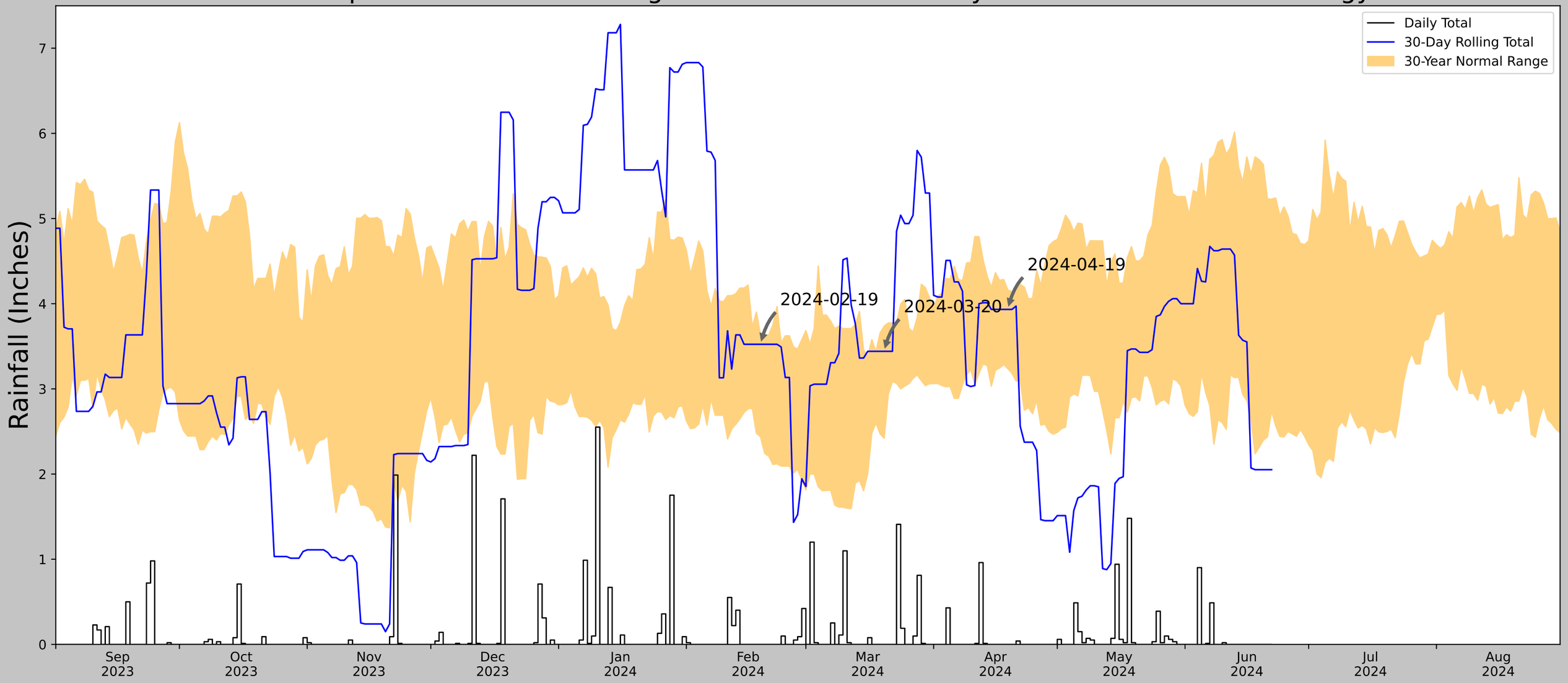
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-19 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-19 | 3.237795 | 4.159843 | 3.933071 | Normal | 2 | 3 | 6 |
| 2024-03-20 | 2.420079 | 3.737795 | 3.440945 | Normal | 2 | 2 | 4 |
| 2024-02-19 | 2.437402 | 3.629134 | 3.523622 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 12 |

US Army Corps of Engineers

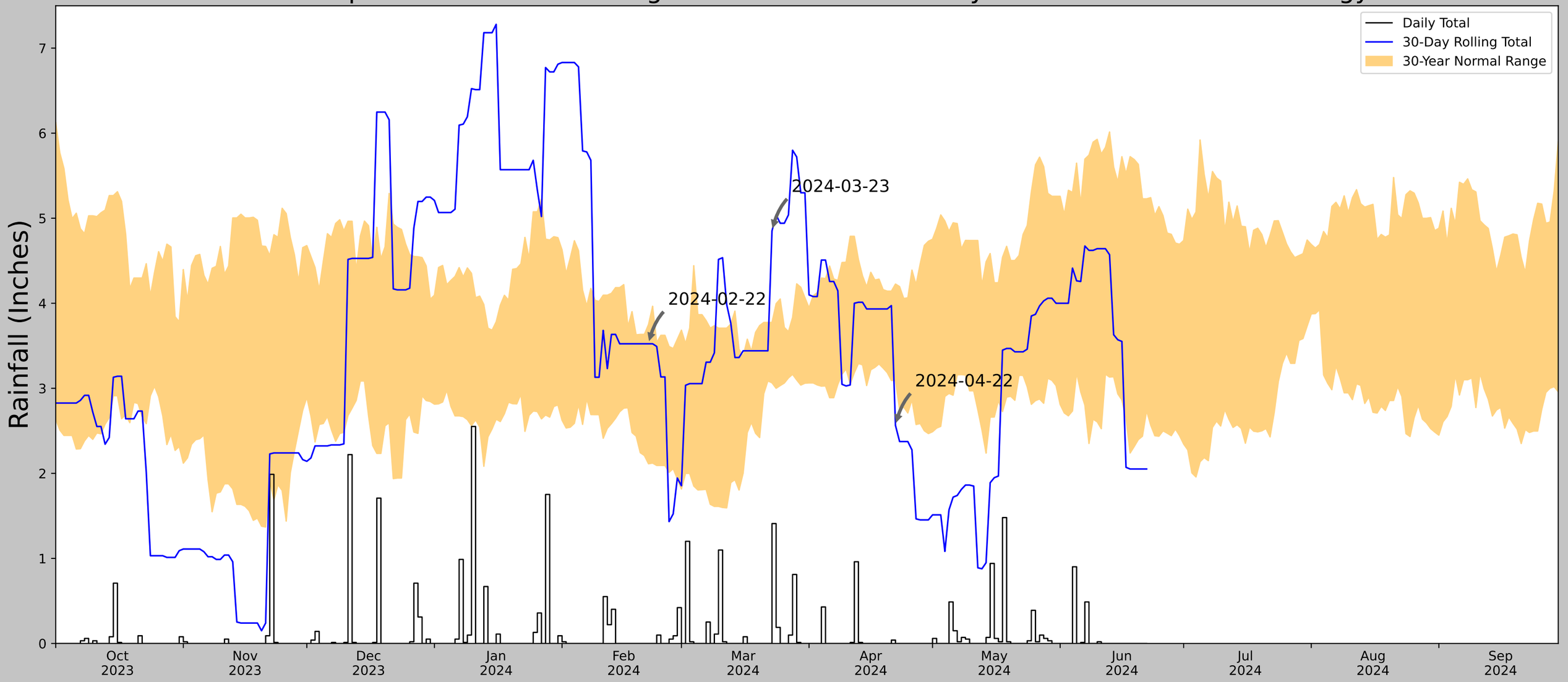
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-22 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-22 | 3.092126 | 4.226378 | 2.562992 | Dry | 1 | 3 | 3 |
| 2024-03-23 | 3.064567 | 3.77441 | 4.850394 | Wet | 3 | 2 | 6 |
| 2024-02-22 | 2.112205 | 3.750394 | 3.523622 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

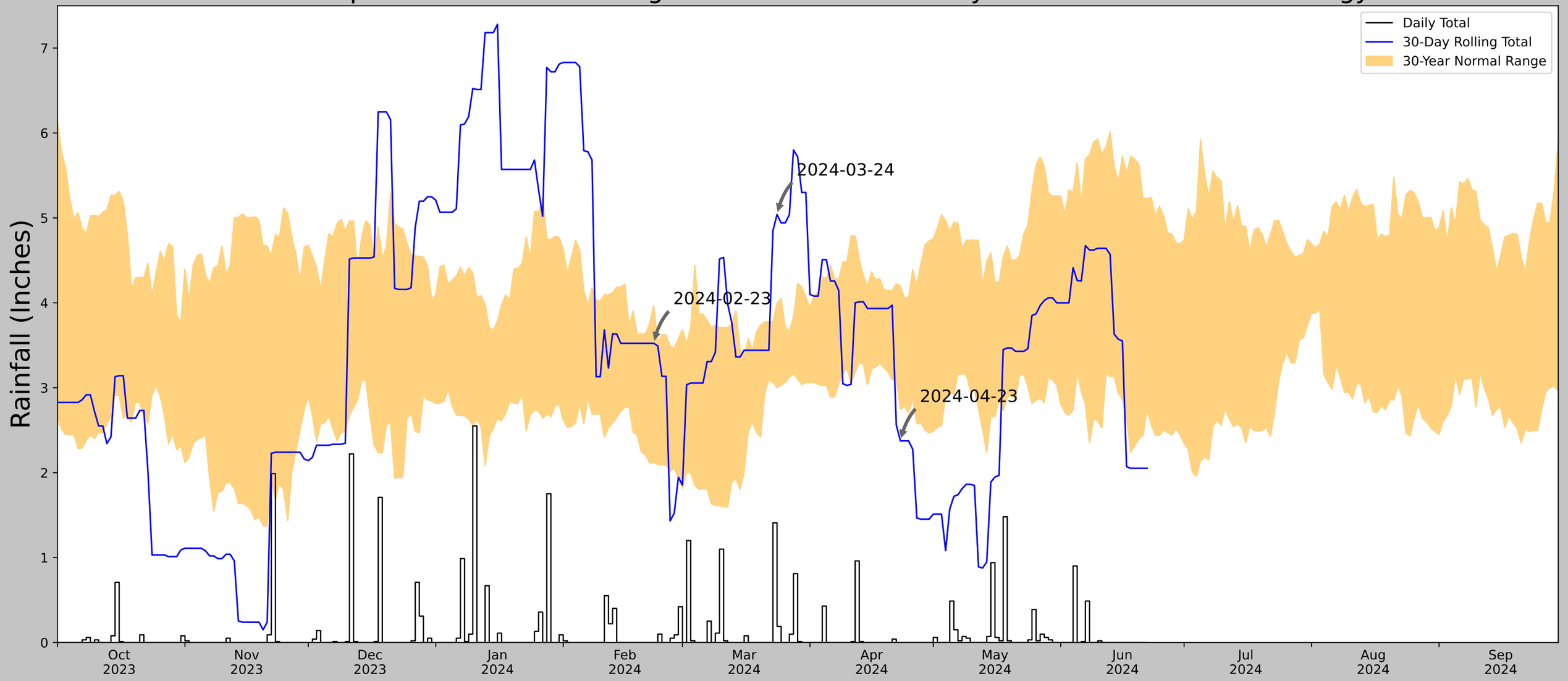
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-23 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-23 | 2.749213 | 4.196457 | 2.374016 | Dry | 1 | 3 | 3 |
| 2024-03-24 | 3.0 | 3.994882 | 5.03937 | Wet | 3 | 2 | 6 |
| 2024-02-23 | 2.120473 | 3.965354 | 3.523622 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

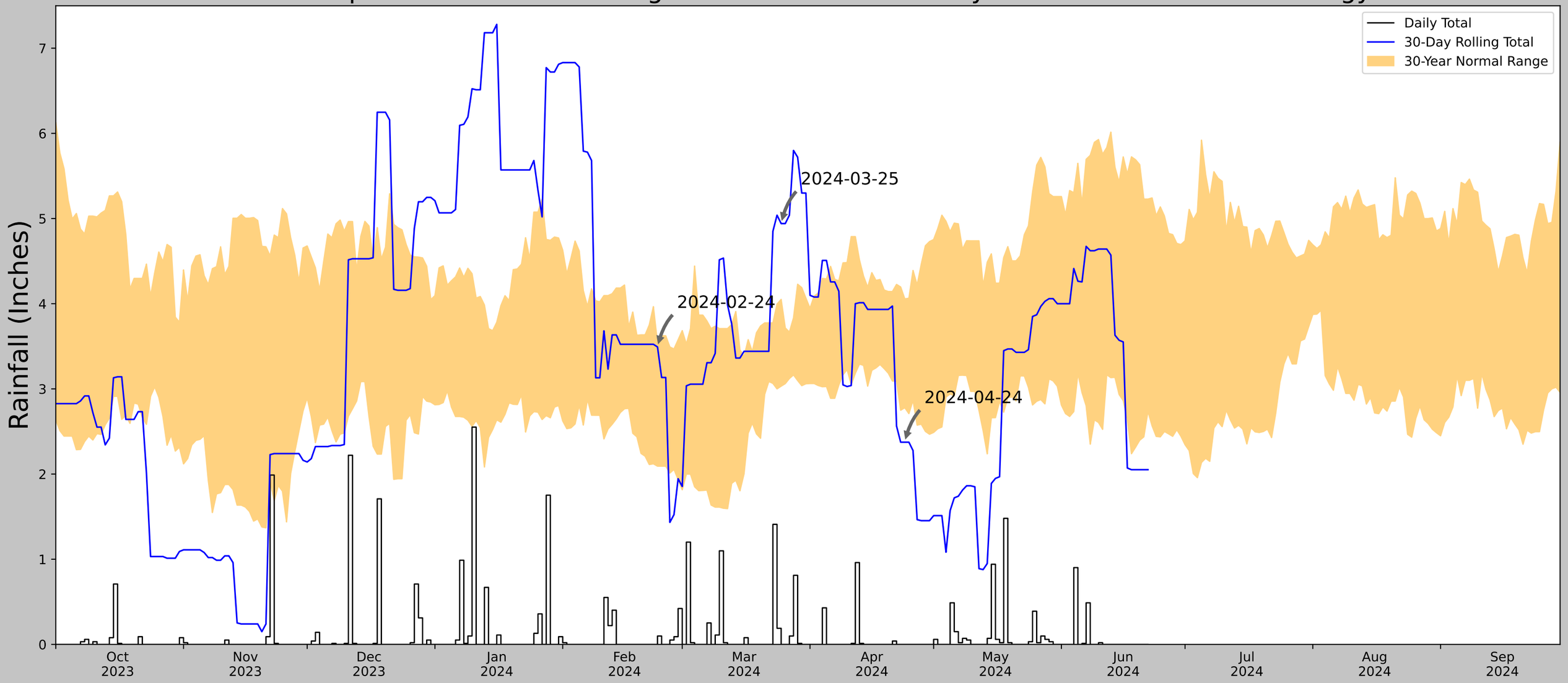
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-24 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-24 | 2.779134 | 4.056299 | 2.374016 | Dry | 1 | 3 | 3 |
| 2024-03-25 | 3.03189 | 4.050788 | 4.940945 | Wet | 3 | 2 | 6 |
| 2024-02-24 | 2.09252 | 3.537402 | 3.492126 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

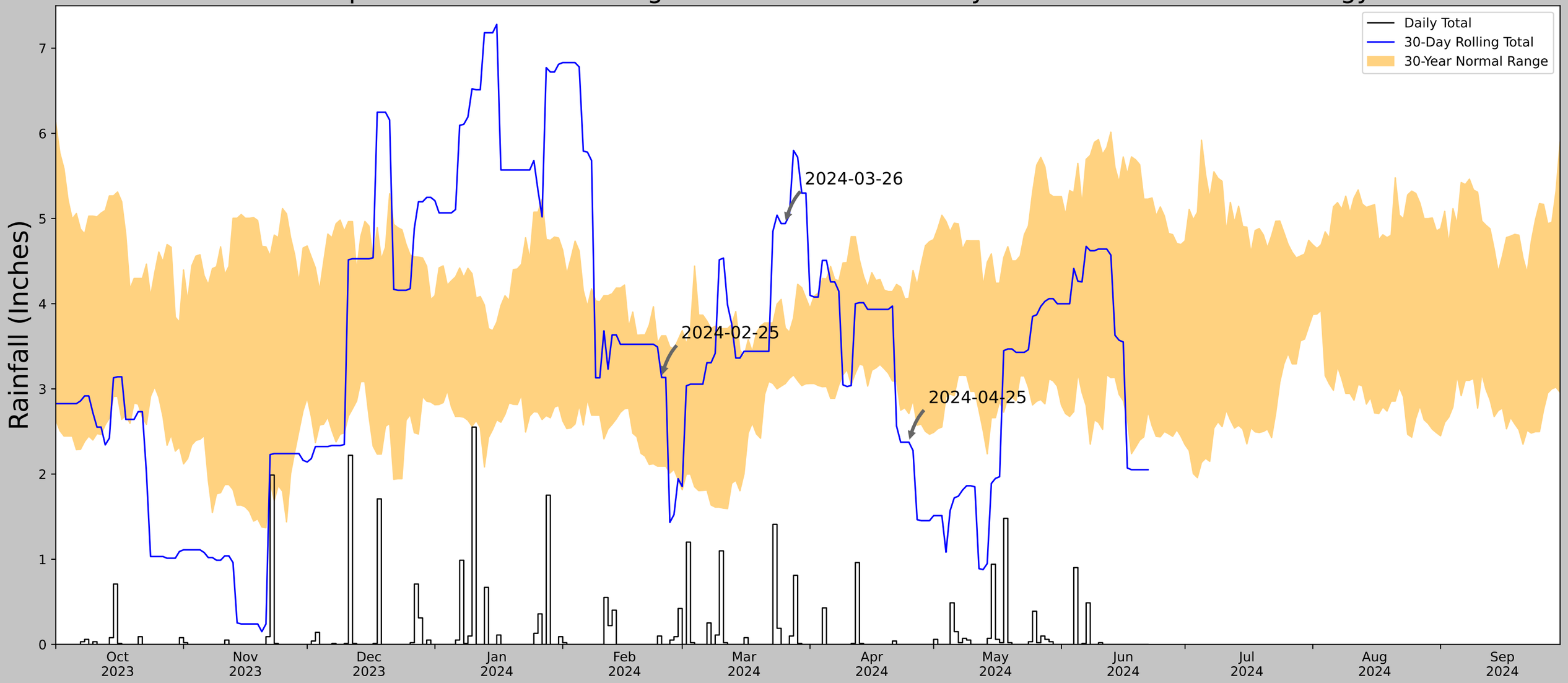
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-25 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-25 | 2.709449 | 4.064567 | 2.374016 | Dry | 1 | 3 | 3 |
| 2024-03-26 | 3.061811 | 3.715354 | 4.940945 | Wet | 3 | 2 | 6 |
| 2024-02-25 | 2.09252 | 3.623622 | 3.133858 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

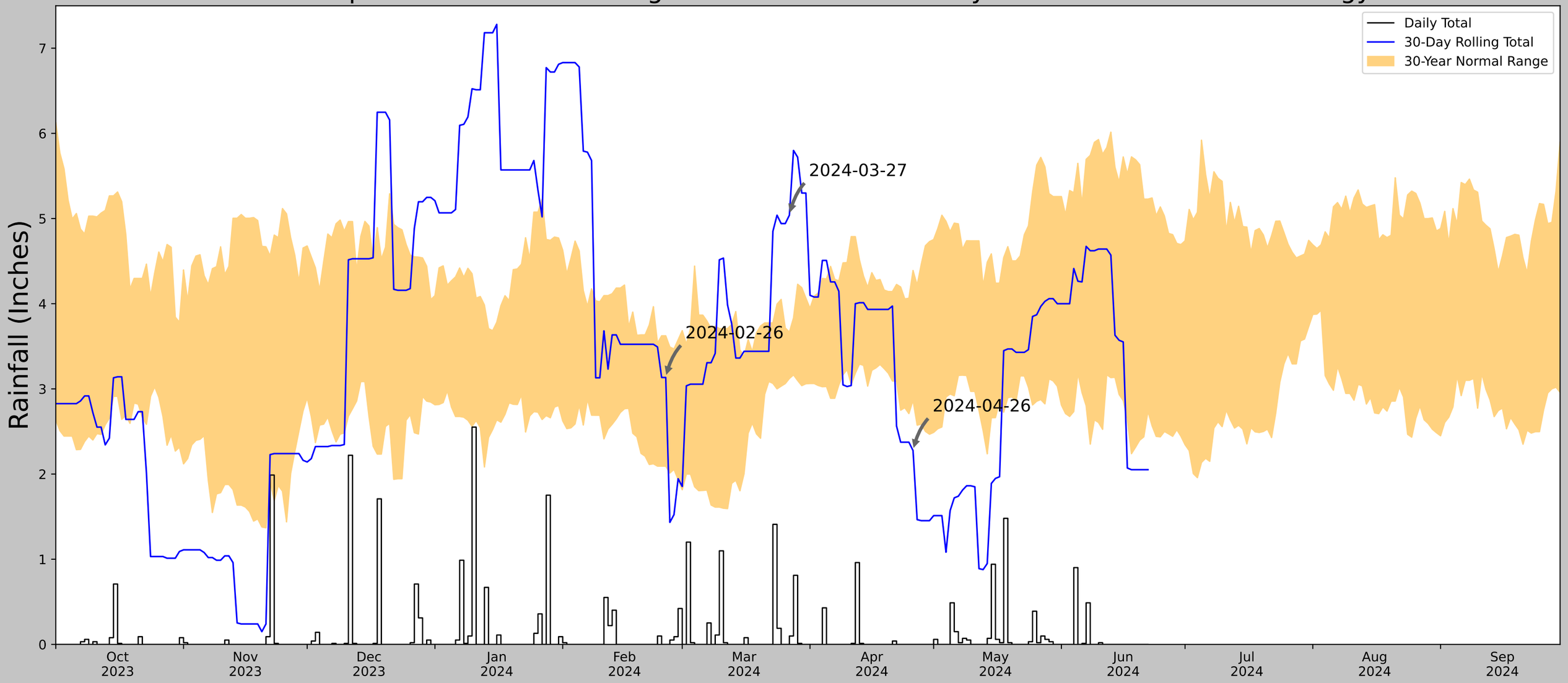
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-26 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-26 | 2.866142 | 4.390551 | 2.275591 | Dry | 1 | 3 | 3 |
| 2024-03-27 | 3.122047 | 3.666536 | 5.03937 | Wet | 3 | 2 | 6 |
| 2024-02-26 | 2.09252 | 3.623622 | 3.133858 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 11 |

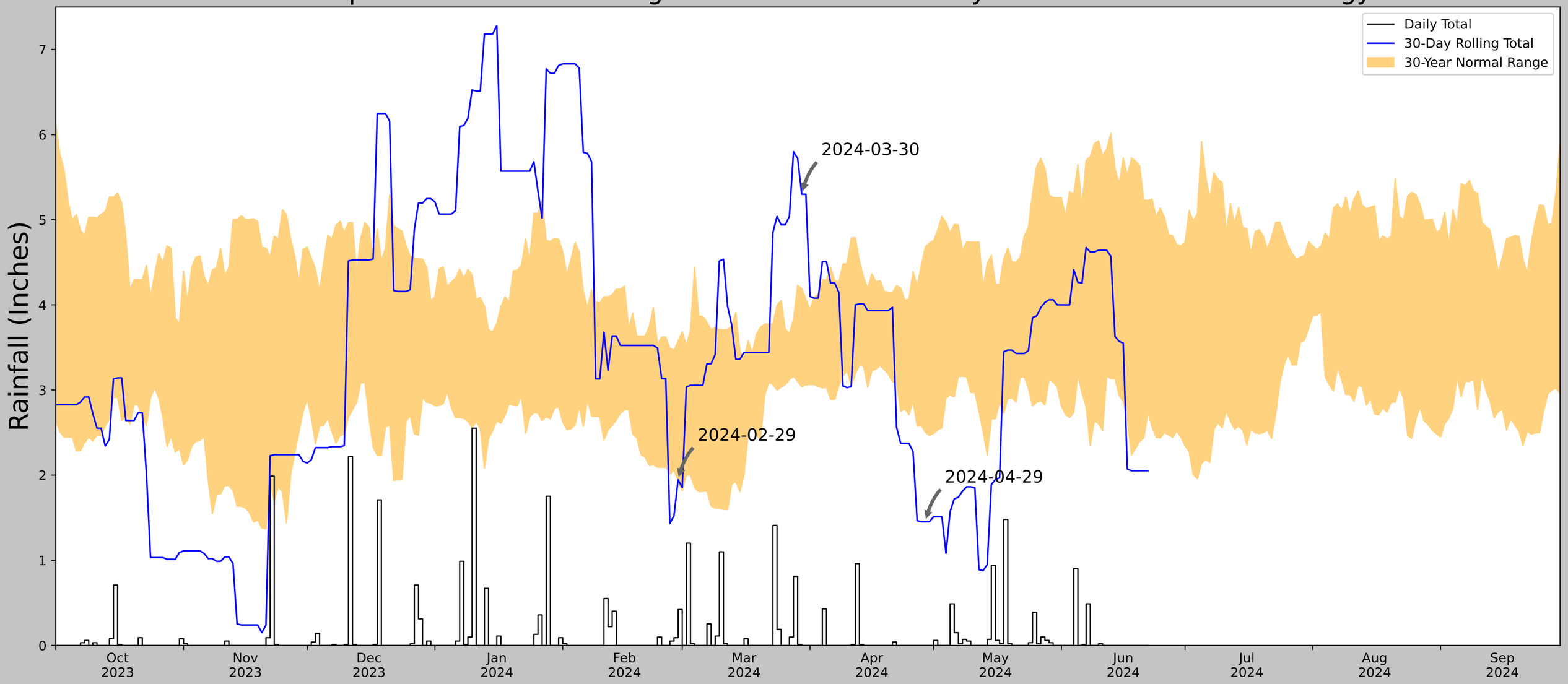
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-29 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-29 | 2.500787 | 4.680709 | 1.452756 | Dry | 1 | 3 | 3 |
| 2024-03-30 | 3.037795 | 4.188583 | 5.299213 | Wet | 3 | 2 | 6 |
| 2024-02-29 | 1.935433 | 3.576378 | 1.944882 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

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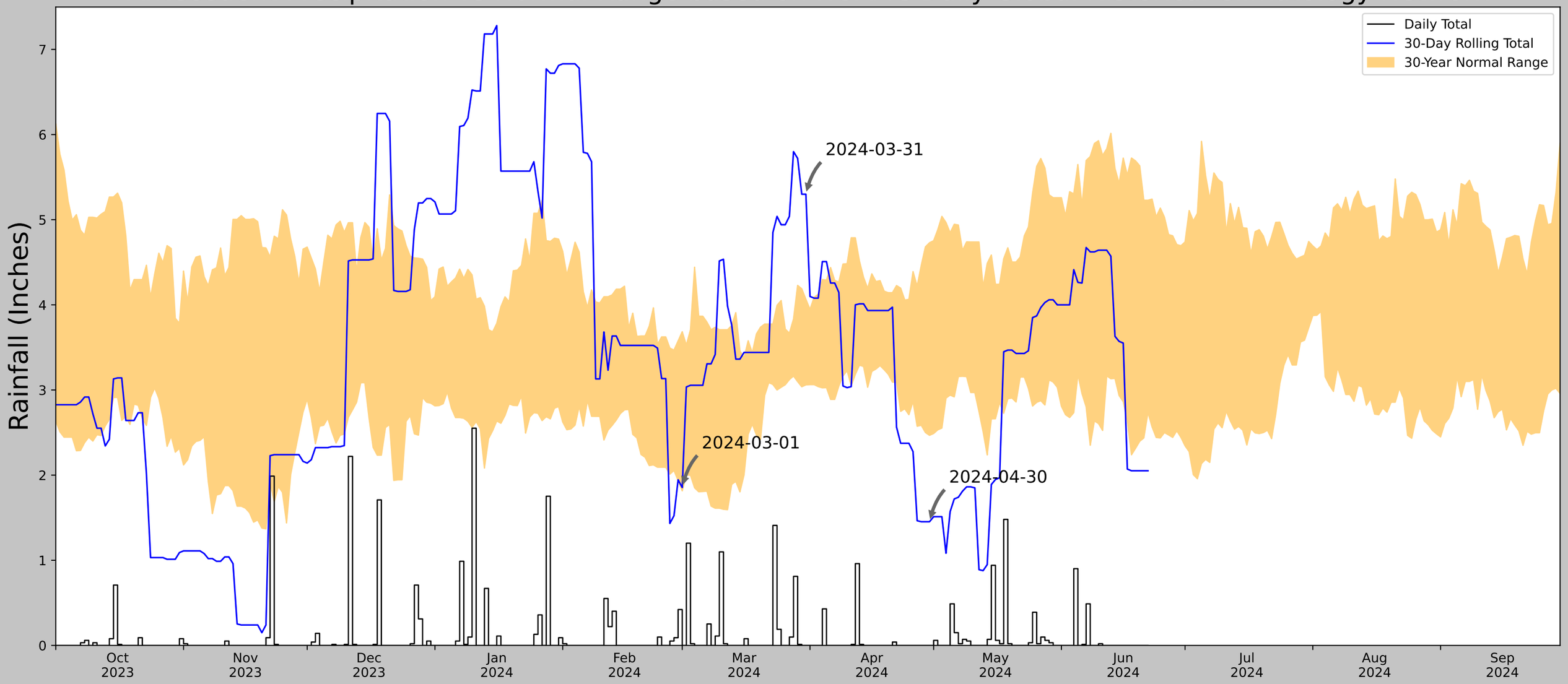
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-04-30 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-04-30 | 2.467323 | 4.729528 | 1.452756 | Dry | 1 | 3 | 3 |
| 2024-03-31 | 3.059843 | 4.066142 | 5.299213 | Wet | 3 | 2 | 6 |
| 2024-03-01 | 1.815354 | 3.684252 | 1.854331 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

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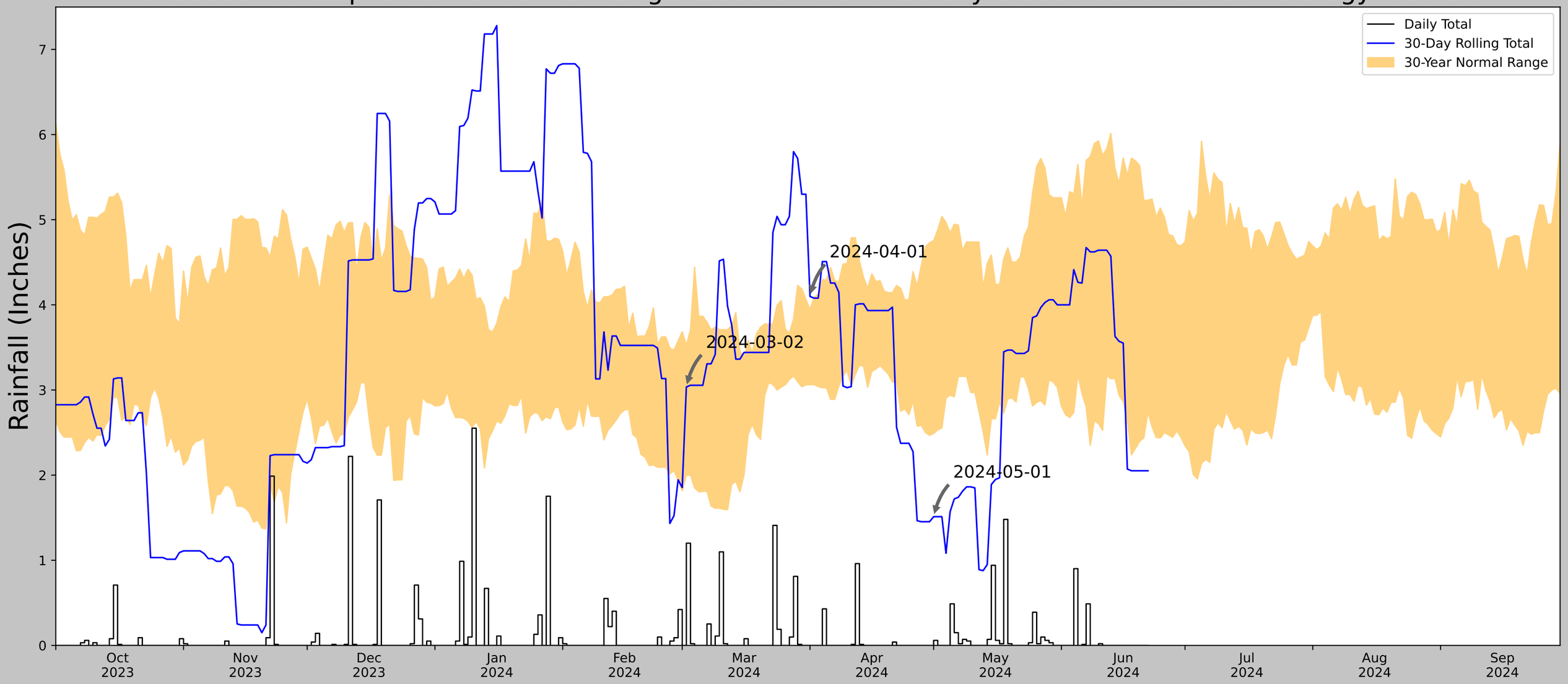
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-01 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-01 | 2.488976 | 4.75315 | 1.511811 | Dry | 1 | 3 | 3 |
| 2024-04-01 | 3.062992 | 3.946063 | 4.098425 | Wet | 3 | 2 | 6 |
| 2024-03-02 | 1.999606 | 3.526772 | 3.035433 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

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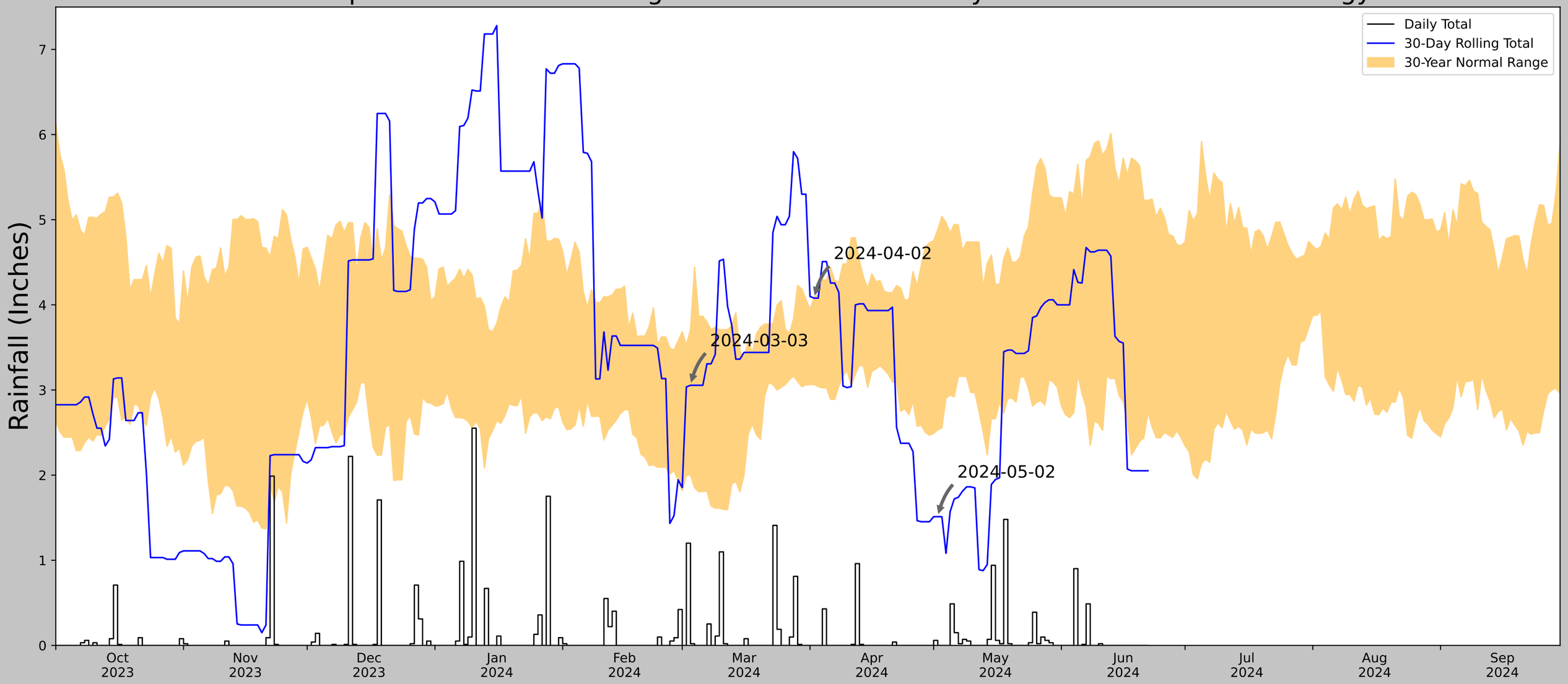
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-02 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-02 | 2.53189 | 4.88189 | 1.511811 | Dry | 1 | 3 | 3 |
| 2024-04-02 | 3.062992 | 4.088583 | 4.07874 | Normal | 2 | 2 | 4 |
| 2024-03-03 | 1.999606 | 3.70748 | 3.055118 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Drier than Normal - 9 |

US Army Corps of Engineers

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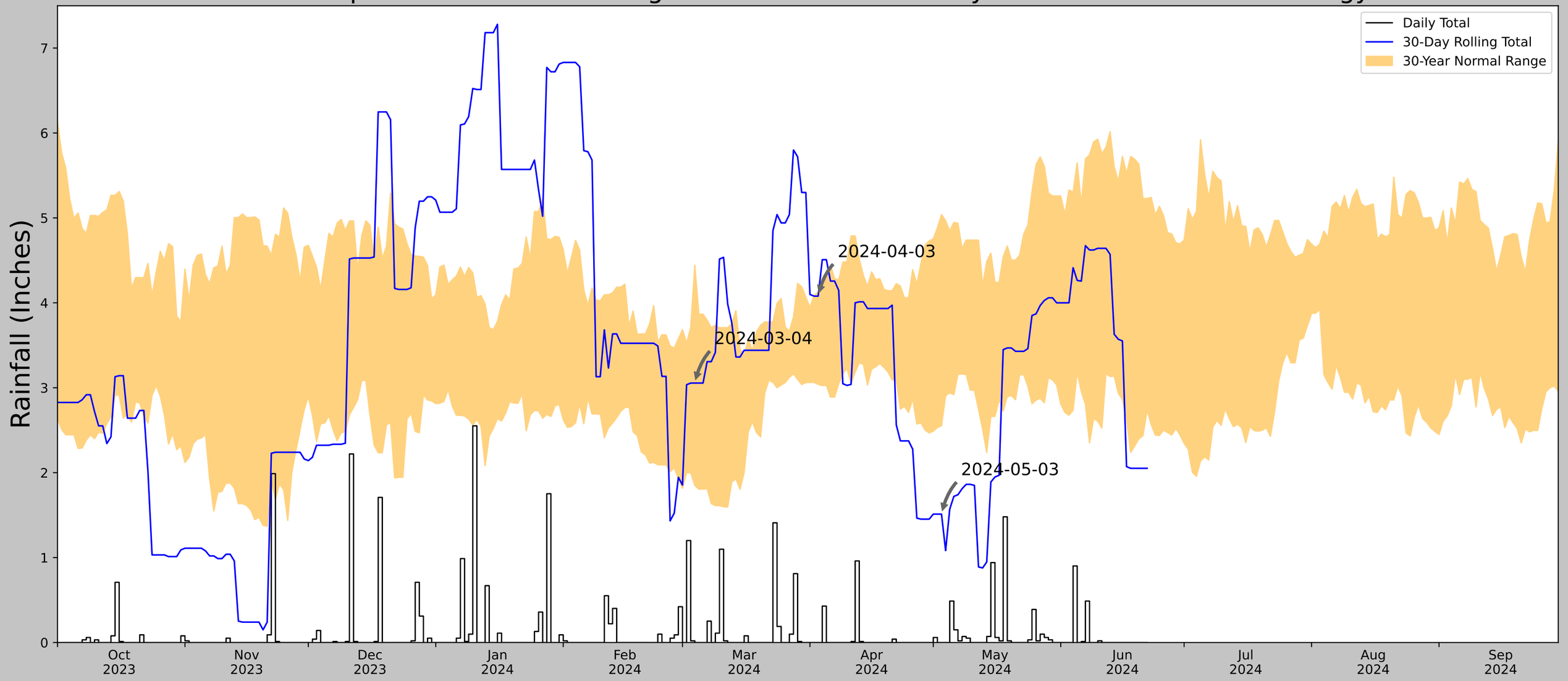
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-03 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-03 | 2.552362 | 5.03937 | 1.511811 | Dry | 1 | 3 | 3 |
| 2024-04-03 | 3.03937 | 4.124016 | 4.07874 | Normal | 2 | 2 | 4 |
| 2024-03-04 | 1.850787 | 4.44252 | 3.055118 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Drier than Normal - 9 |

US Army Corps of Engineers

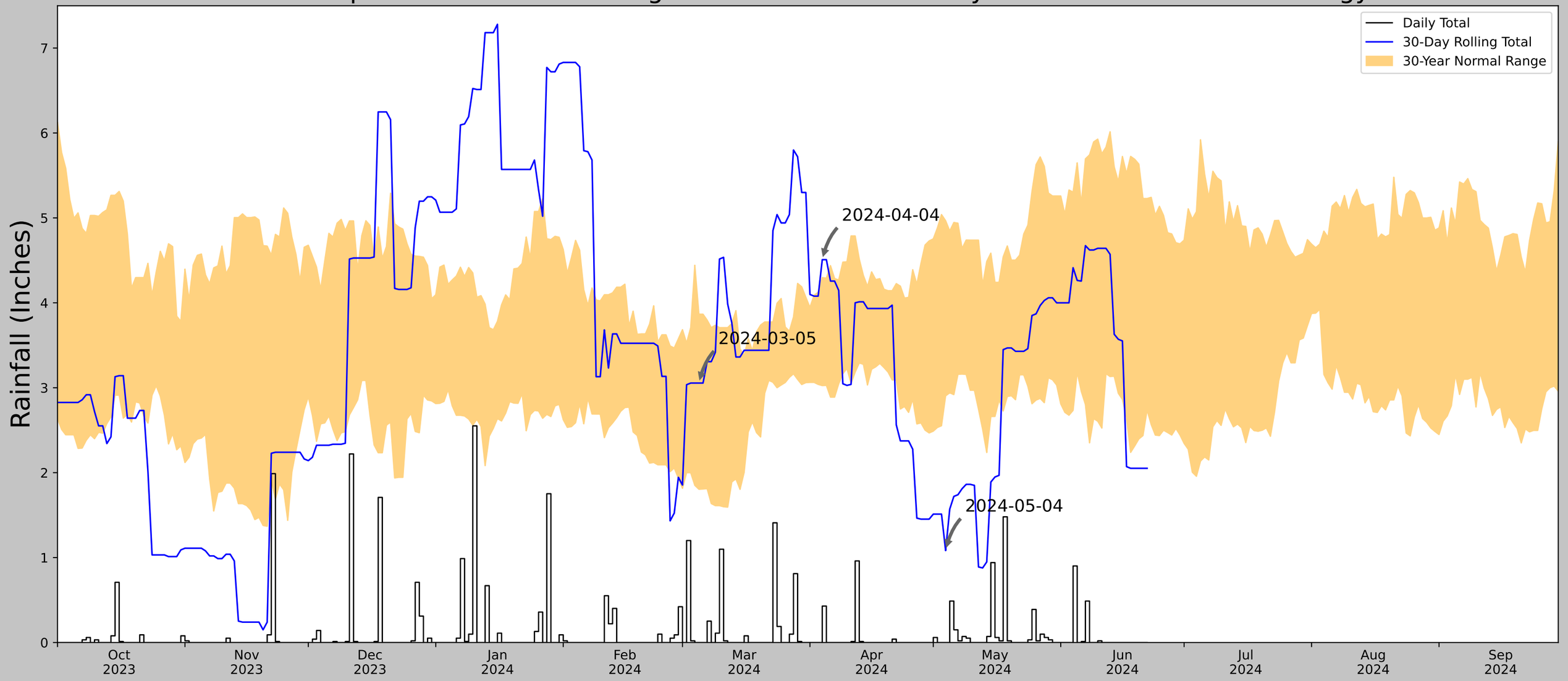
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-04 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-04 | 2.904725 | 4.967323 | 1.082677 | Dry | 1 | 3 | 3 |
| 2024-04-04 | 3.025197 | 4.296851 | 4.507874 | Wet | 3 | 2 | 6 |
| 2024-03-05 | 1.804724 | 3.866142 | 3.055118 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

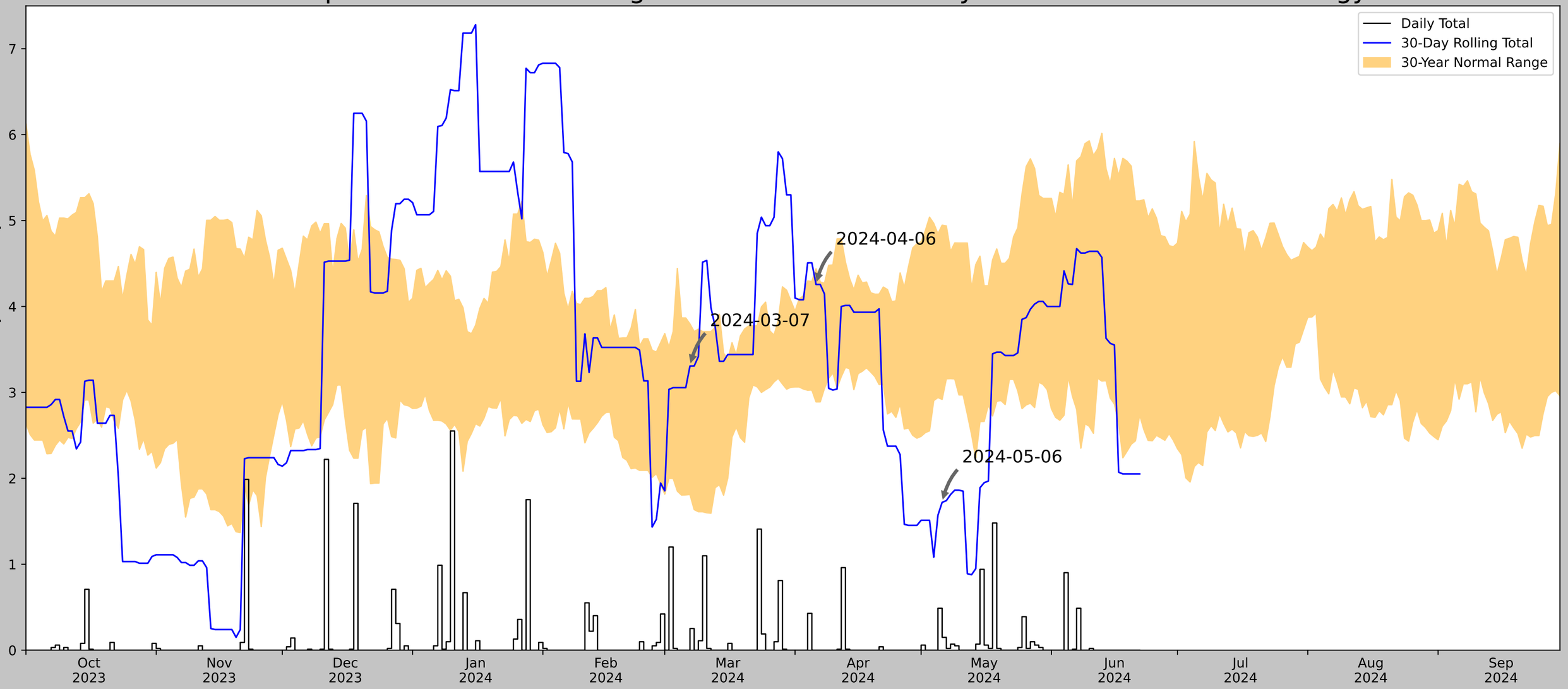
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-06 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-06 | 2.918898 | 4.946063 | 1.720472 | Dry | 1 | 3 | 3 |
| 2024-04-06 | 2.88937 | 4.438583 | 4.255906 | Normal | 2 | 2 | 4 |
| 2024-03-07 | 1.811811 | 3.796457 | 3.307087 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Drier than Normal - 9 |

US Army Corps of Engineers

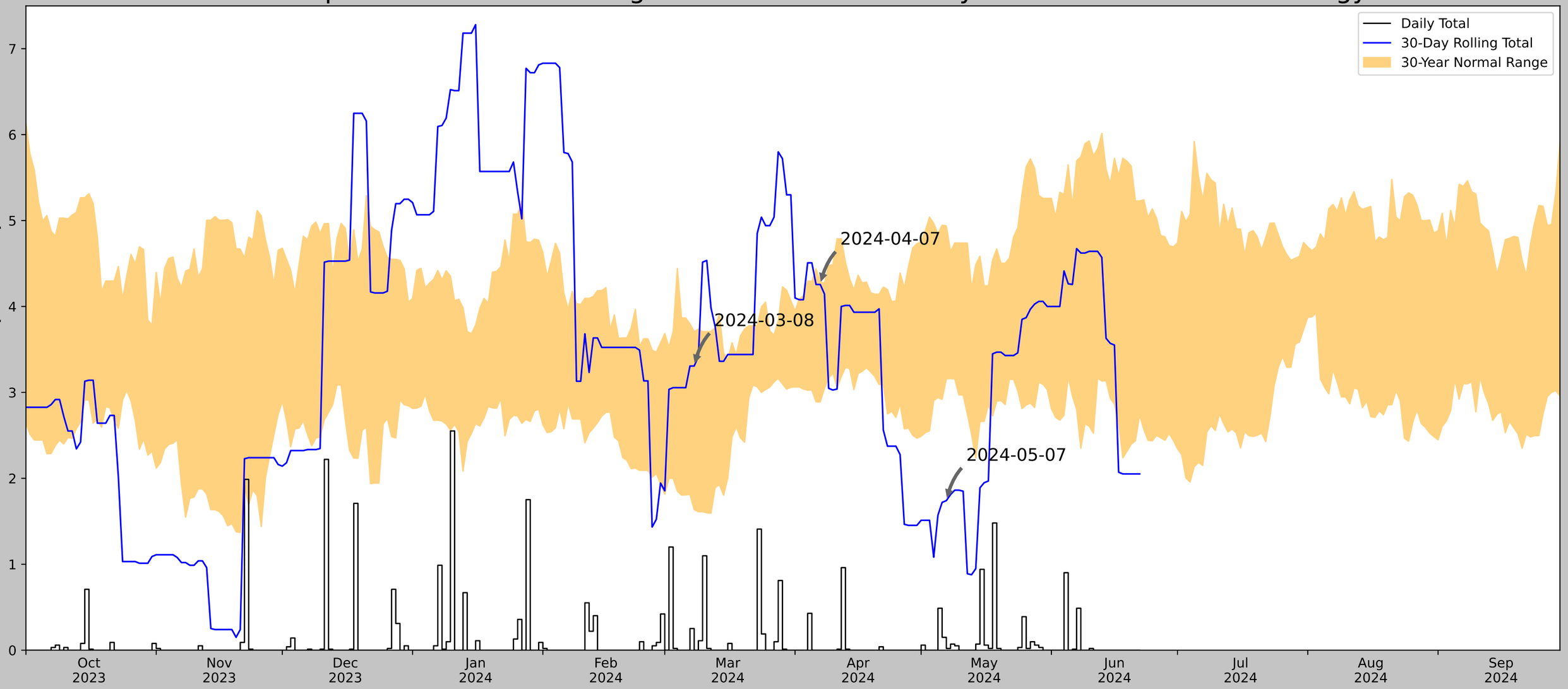
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-07 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-07 | 3.158268 | 4.937795 | 1.740158 | Dry | 1 | 3 | 3 |
| 2024-04-07 | 2.88937 | 4.285433 | 4.255906 | Normal | 2 | 2 | 4 |
| 2024-03-08 | 1.636221 | 3.707874 | 3.307087 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Drier than Normal - 9 |

US Army Corps of Engineers

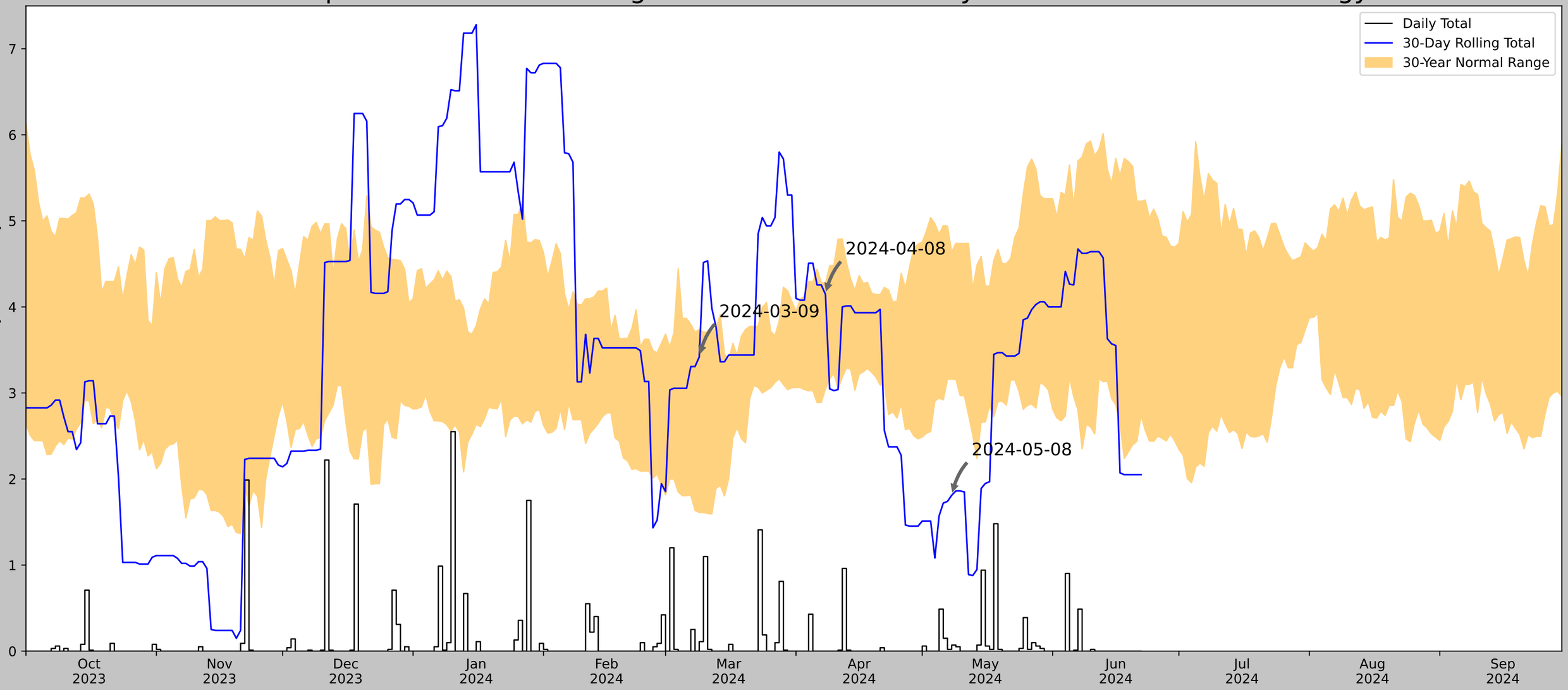
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-08 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-08 | 3.16063 | 4.63937 | 1.811024 | Dry | 1 | 3 | 3 |
| 2024-04-08 | 3.04685 | 4.268898 | 4.145669 | Normal | 2 | 2 | 4 |
| 2024-03-09 | 1.611417 | 3.736221 | 3.417323 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Drier than Normal - 9 |

US Army Corps of Engineers

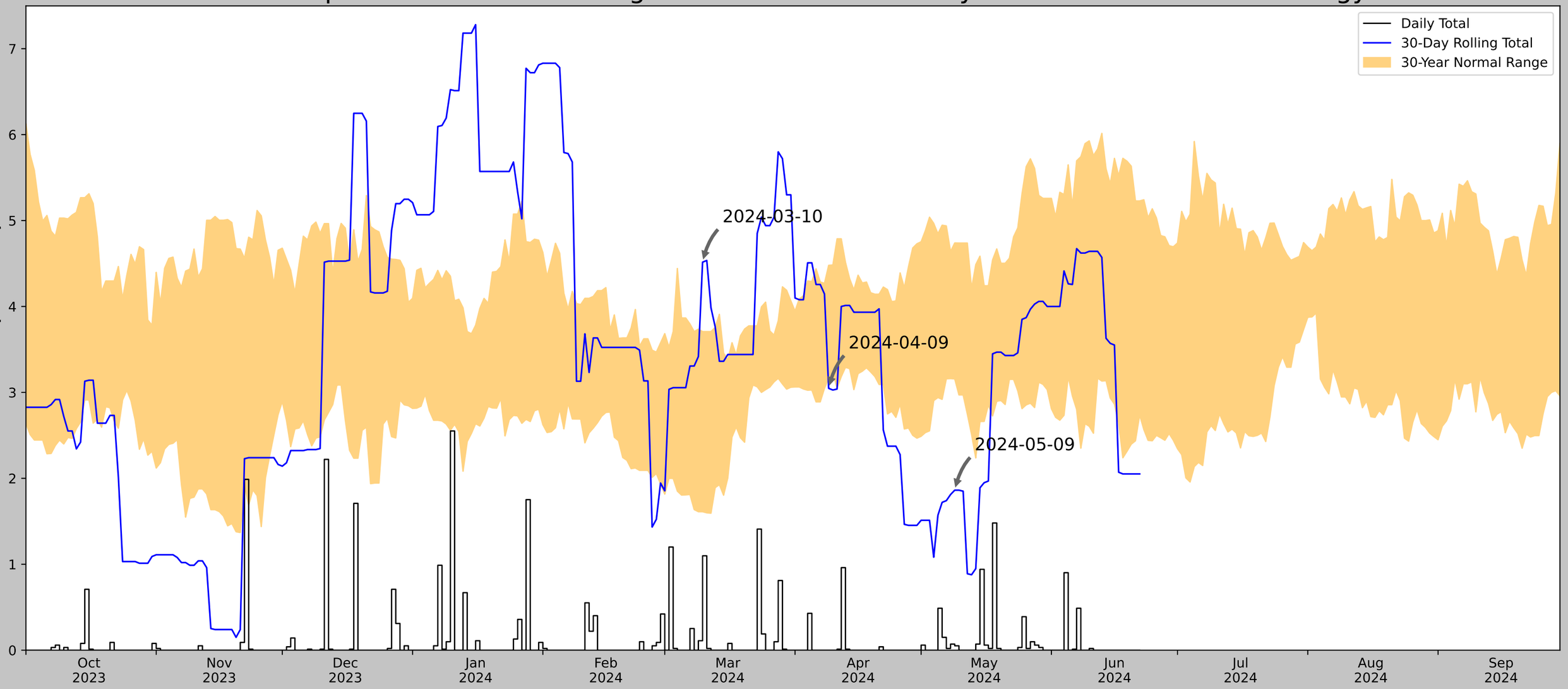
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-09 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-09 | 3.157087 | 4.73937 | 1.862205 | Dry | 1 | 3 | 3 |
| 2024-04-09 | 3.164961 | 4.479134 | 3.047244 | Dry | 1 | 2 | 2 |
| 2024-03-10 | 1.611417 | 3.707874 | 4.515748 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Drier than Normal - 8 |

US Army Corps of Engineers

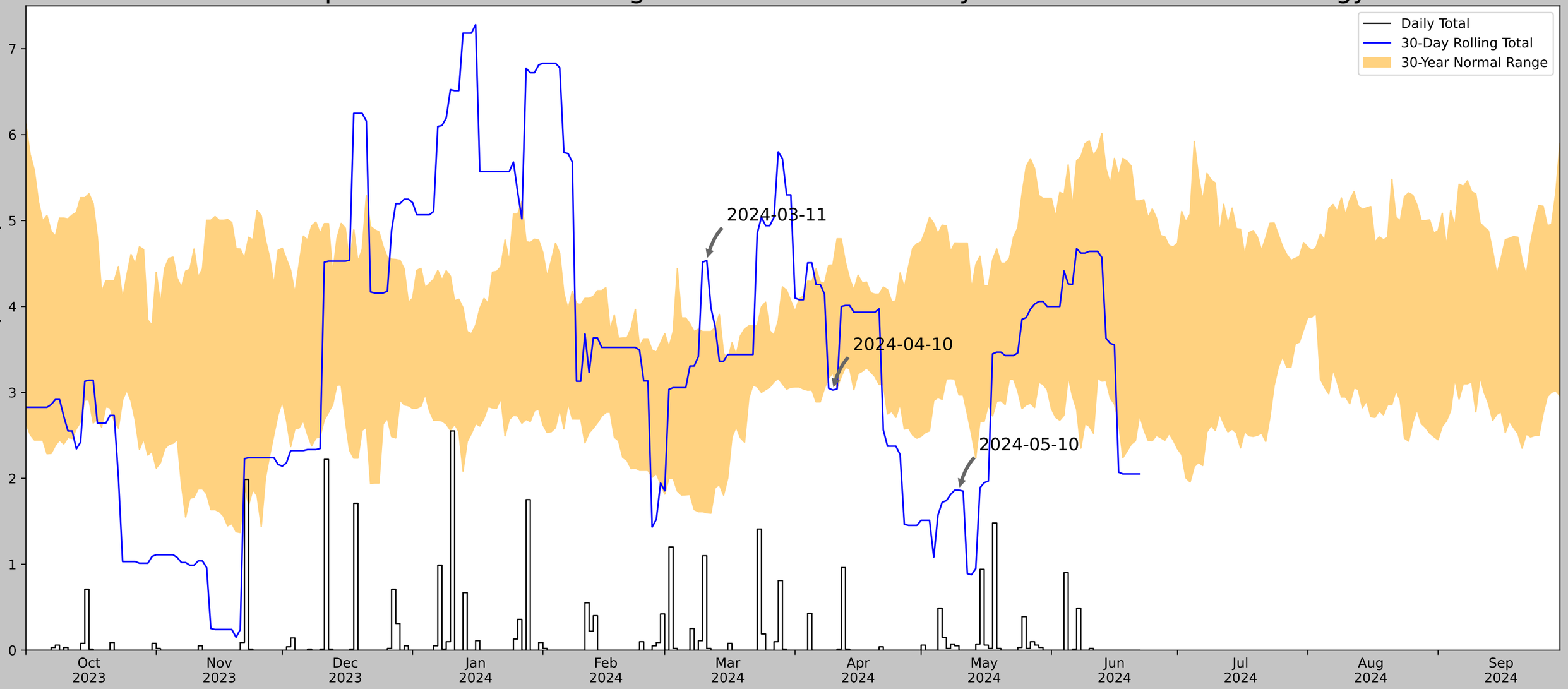
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-10 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-10 | 2.970473 | 4.738189 | 1.862205 | Dry | 1 | 3 | 3 |
| 2024-04-10 | 3.227165 | 4.482677 | 3.027559 | Dry | 1 | 2 | 2 |
| 2024-03-11 | 1.598425 | 3.707874 | 4.535433 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Drier than Normal - 8 |

US Army Corps of Engineers

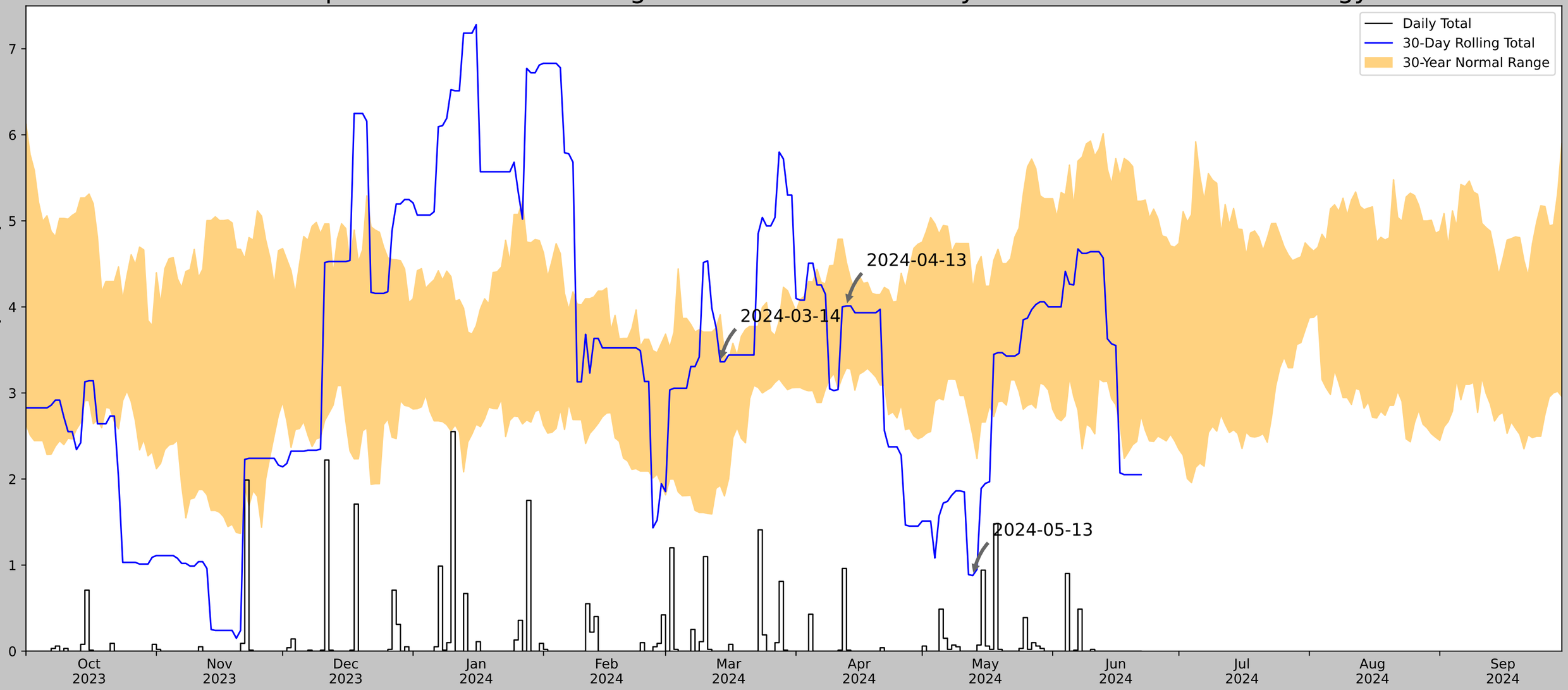
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-13 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-13 | 2.511024 | 4.208662 | 0.877953 | Dry | 1 | 3 | 3 |
| 2024-04-13 | 3.291339 | 4.514567 | 4.011811 | Normal | 2 | 2 | 4 |
| 2024-03-14 | 1.925984 | 3.908662 | 3.362205 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Drier than Normal - 9 |

US Army Corps of Engineers

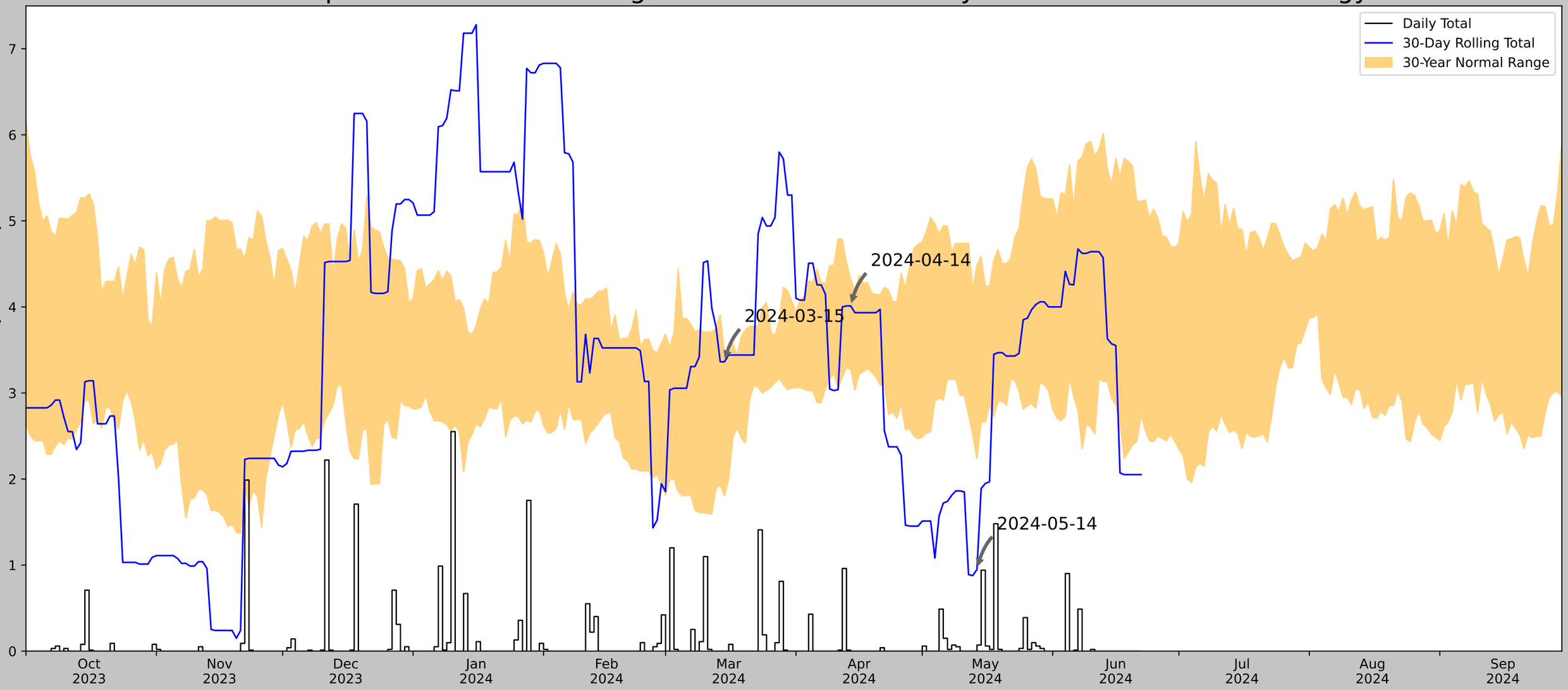
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-14 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-14 | 2.237008 | 4.487008 | 0.948819 | Dry | 1 | 3 | 3 |
| 2024-04-14 | 3.275984 | 4.322047 | 4.011811 | Normal | 2 | 2 | 4 |
| 2024-03-15 | 1.80315 | 3.457874 | 3.362205 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Drier than Normal - 9 |

US Army Corps of Engineers

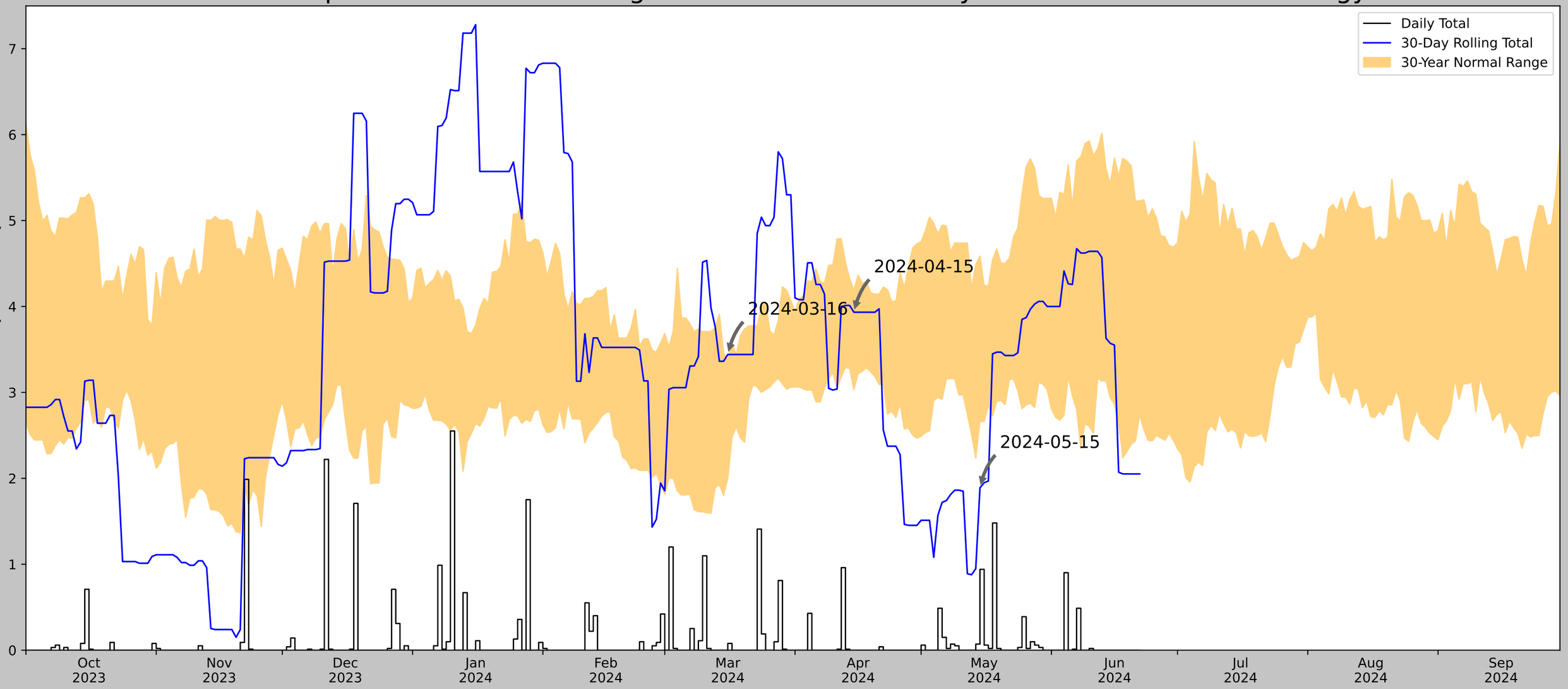
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-15 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-15 | 2.661024 | 4.585433 | 1.889764 | Dry | 1 | 3 | 3 |
| 2024-04-15 | 3.03189 | 4.193701 | 3.933071 | Normal | 2 | 2 | 4 |
| 2024-03-16 | 2.00315 | 3.37874 | 3.440945 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 10 |

US Army Corps of Engineers

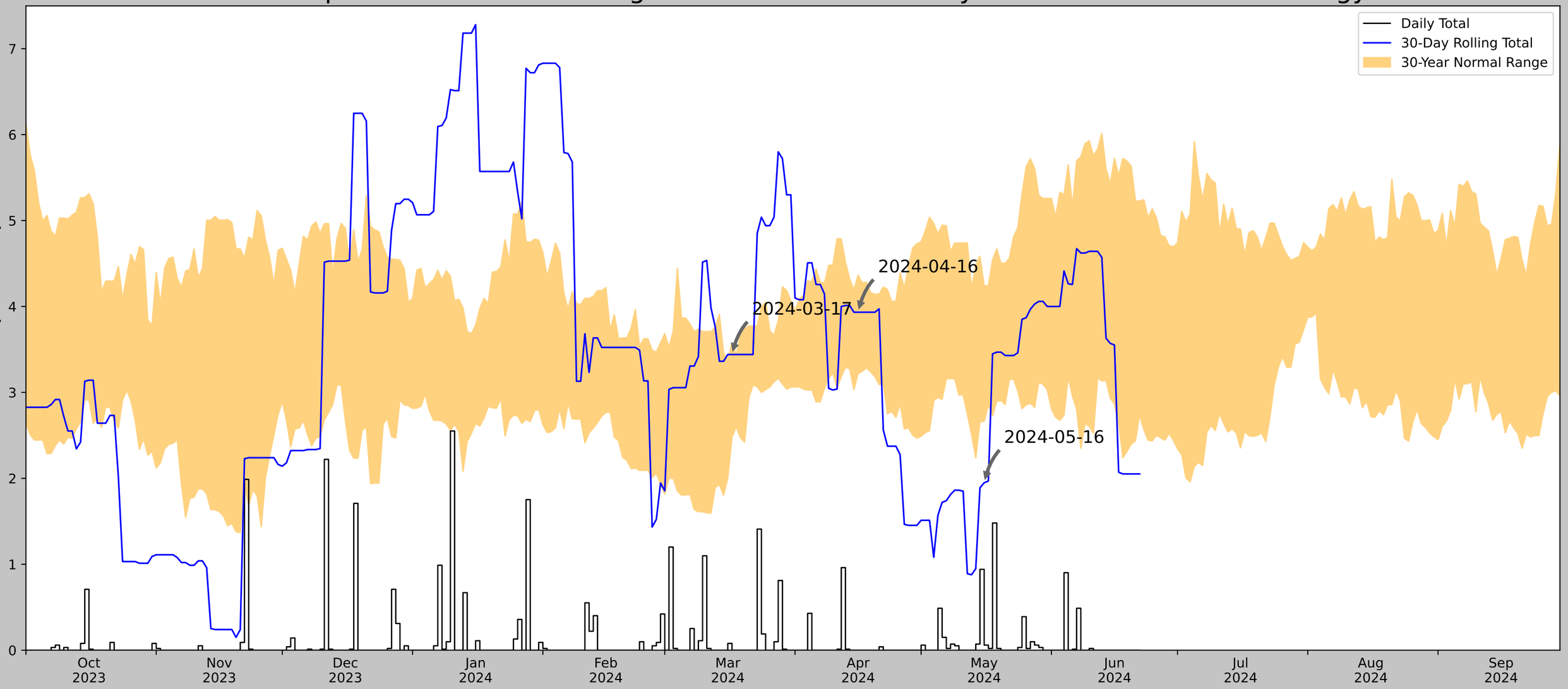
ERDC ENGINEER RESEARCH & DEVELOPMENT CENTER

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-16 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-16 | 2.662205 | 4.241339 | 1.948819 | Dry | 1 | 3 | 3 |
| 2024-04-16 | 3.218504 | 4.364567 | 3.933071 | Normal | 2 | 2 | 4 |
| 2024-03-17 | 2.479528 | 3.578347 | 3.440945 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Drier than Normal - 9 |

US Army Corps of Engineers

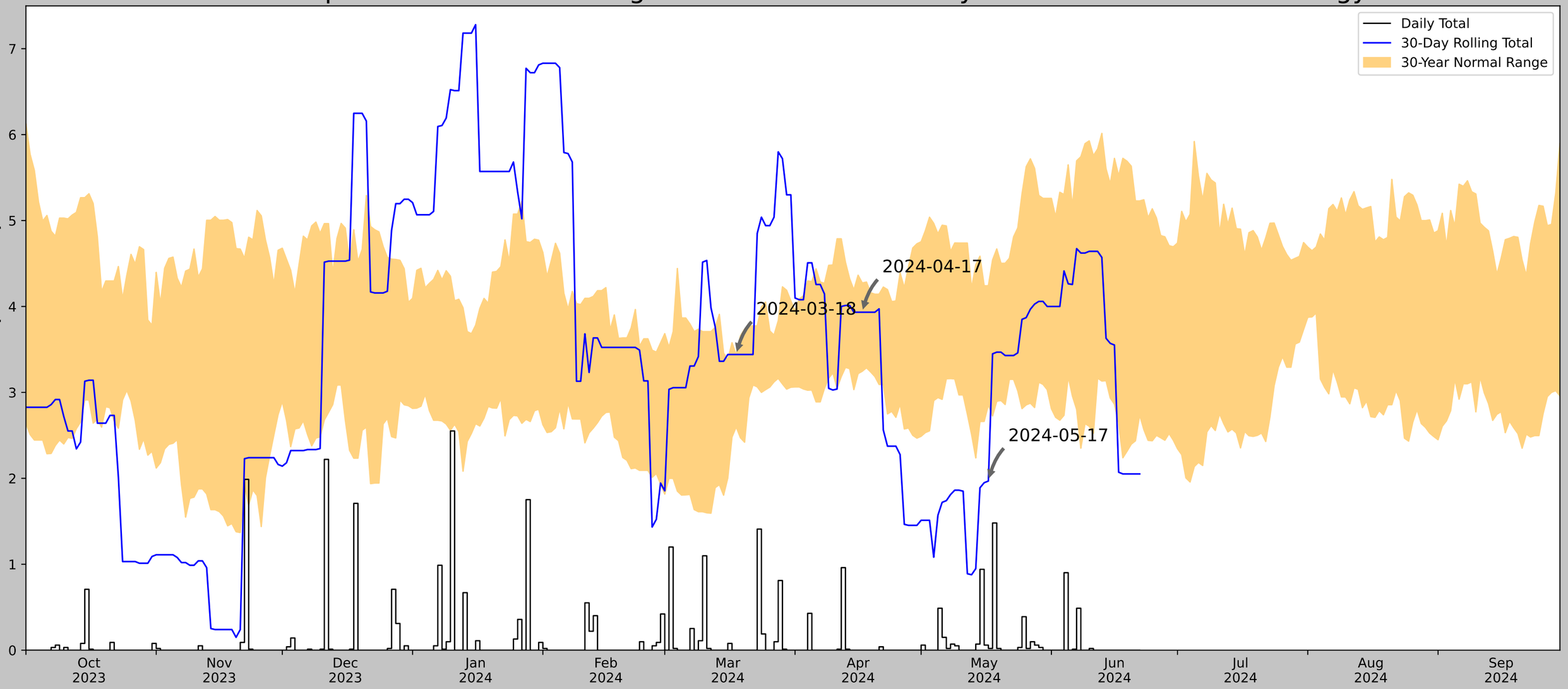
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-17 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-17 | 2.855118 | 4.241339 | 1.968504 | Dry | 1 | 3 | 3 |
| 2024-04-17 | 3.246063 | 4.273622 | 3.933071 | Normal | 2 | 2 | 4 |
| 2024-03-18 | 2.598819 | 3.436614 | 3.440945 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 10 |

US Army Corps of Engineers

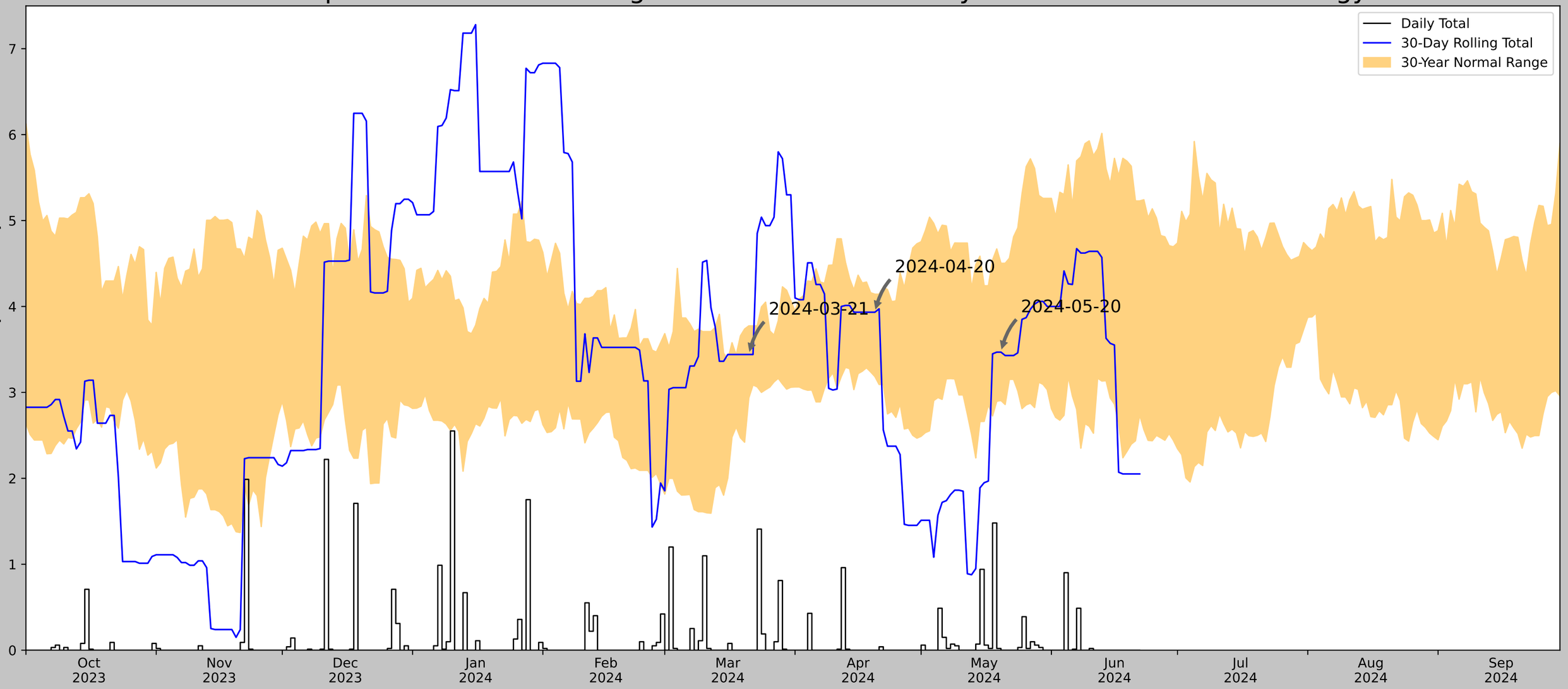
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-20 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-20 | 2.905906 | 4.502756 | 3.468504 | Normal | 2 | 3 | 6 |
| 2024-04-20 | 3.184252 | 4.142914 | 3.933071 | Normal | 2 | 2 | 4 |
| 2024-03-21 | 2.935039 | 3.77441 | 3.440945 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 12 |

US Army Corps of Engineers

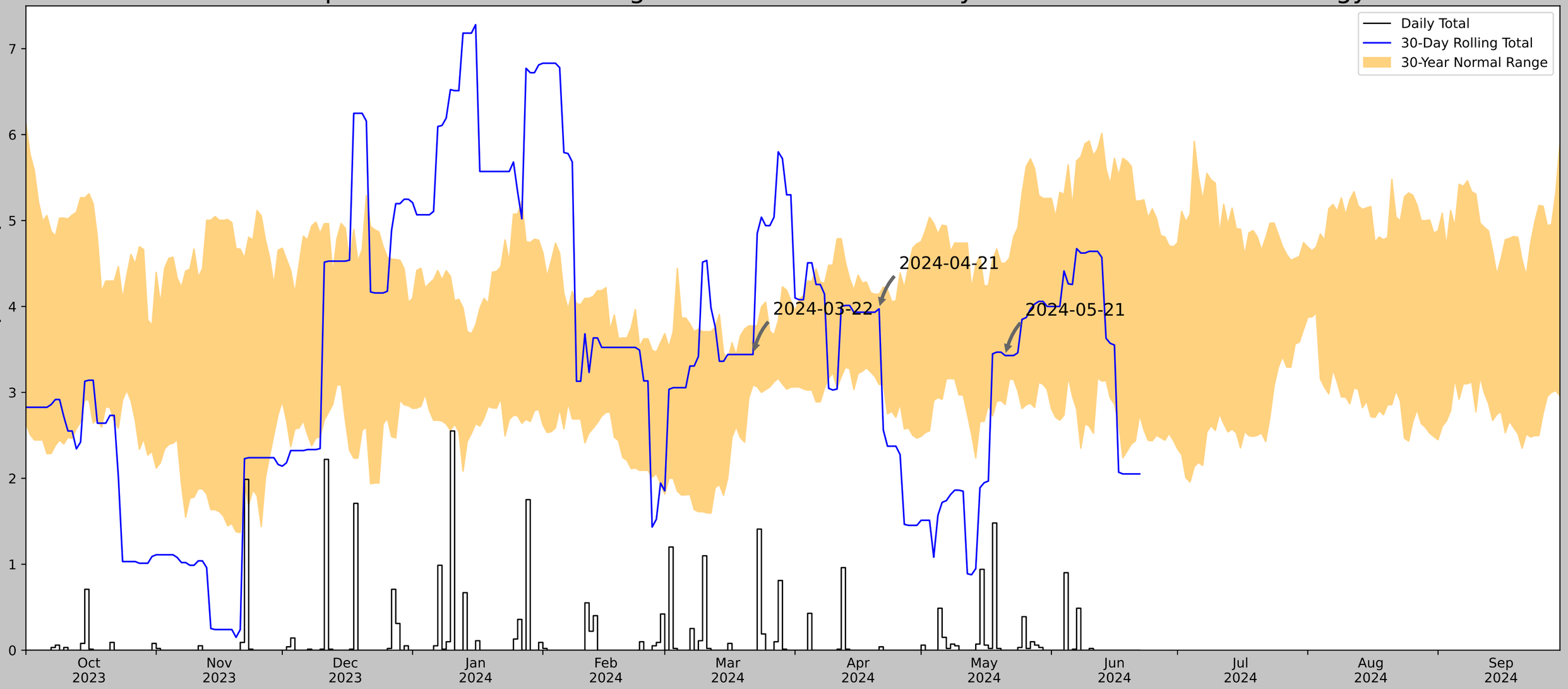
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-21 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-21 | 2.858662 | 4.502756 | 3.429134 | Normal | 2 | 3 | 6 |
| 2024-04-21 | 3.092126 | 4.142914 | 3.972441 | Normal | 2 | 2 | 4 |
| 2024-03-22 | 3.086614 | 3.77441 | 3.440945 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 12 |

US Army Corps of Engineers

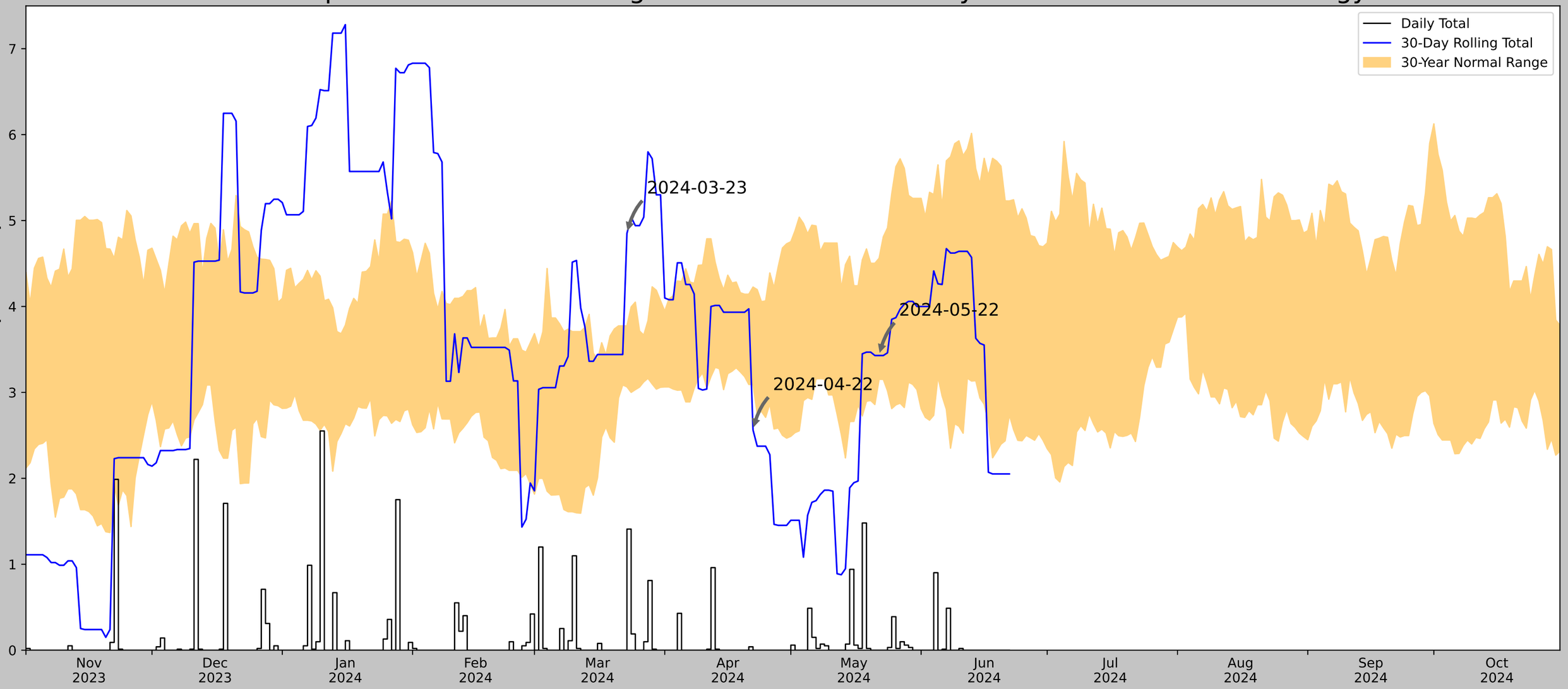
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-22 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-22 | 3.151969 | 4.561417 | 3.429134 | Normal | 2 | 3 | 6 |
| 2024-04-22 | 3.092126 | 4.226378 | 2.562992 | Dry | 1 | 2 | 2 |
| 2024-03-23 | 3.064567 | 3.77441 | 4.850394 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

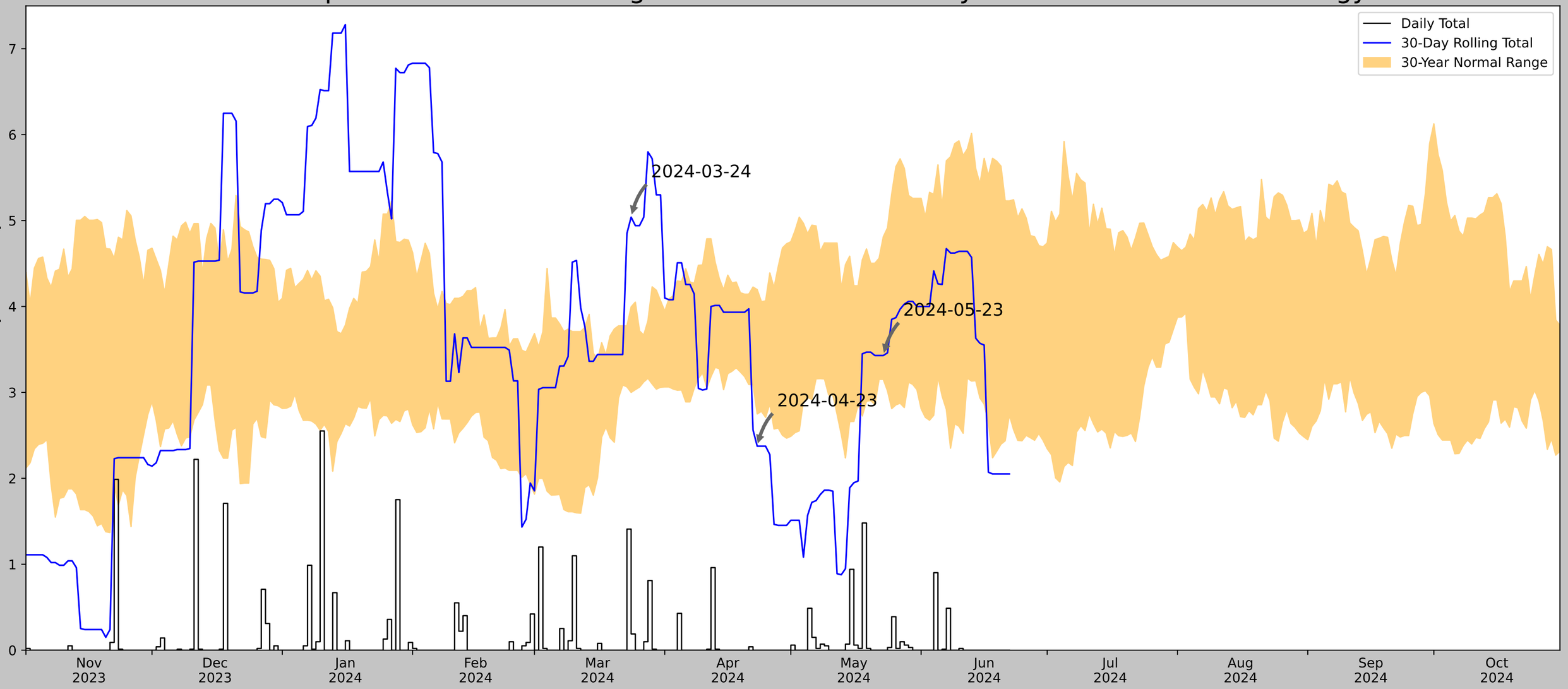
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-23 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-23 | 3.151969 | 4.811024 | 3.429134 | Normal | 2 | 3 | 6 |
| 2024-04-23 | 2.749213 | 4.196457 | 2.374016 | Dry | 1 | 2 | 2 |
| 2024-03-24 | 3.0 | 3.994882 | 5.03937 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

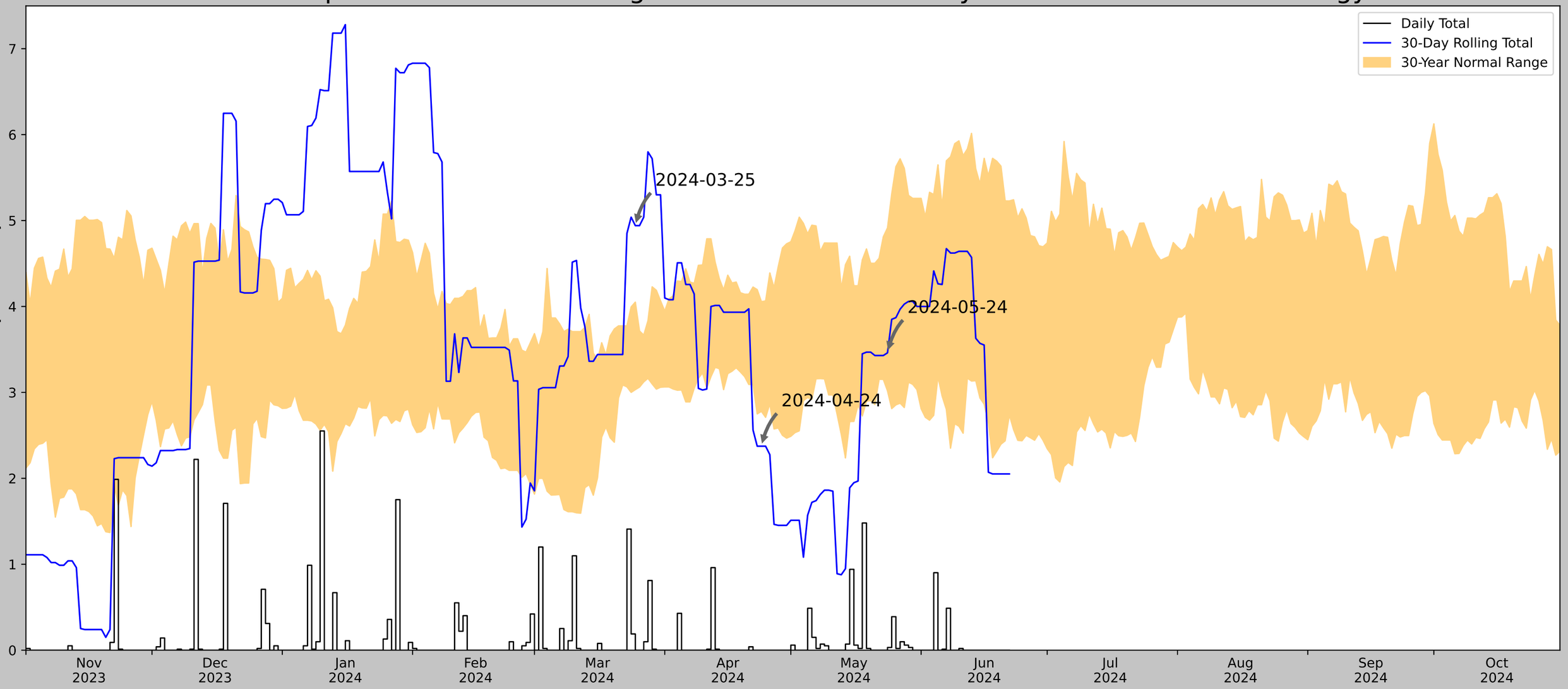
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-24 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-24 | 3.017323 | 4.914961 | 3.46063 | Normal | 2 | 3 | 6 |
| 2024-04-24 | 2.779134 | 4.056299 | 2.374016 | Dry | 1 | 2 | 2 |
| 2024-03-25 | 3.03189 | 4.050788 | 4.940945 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

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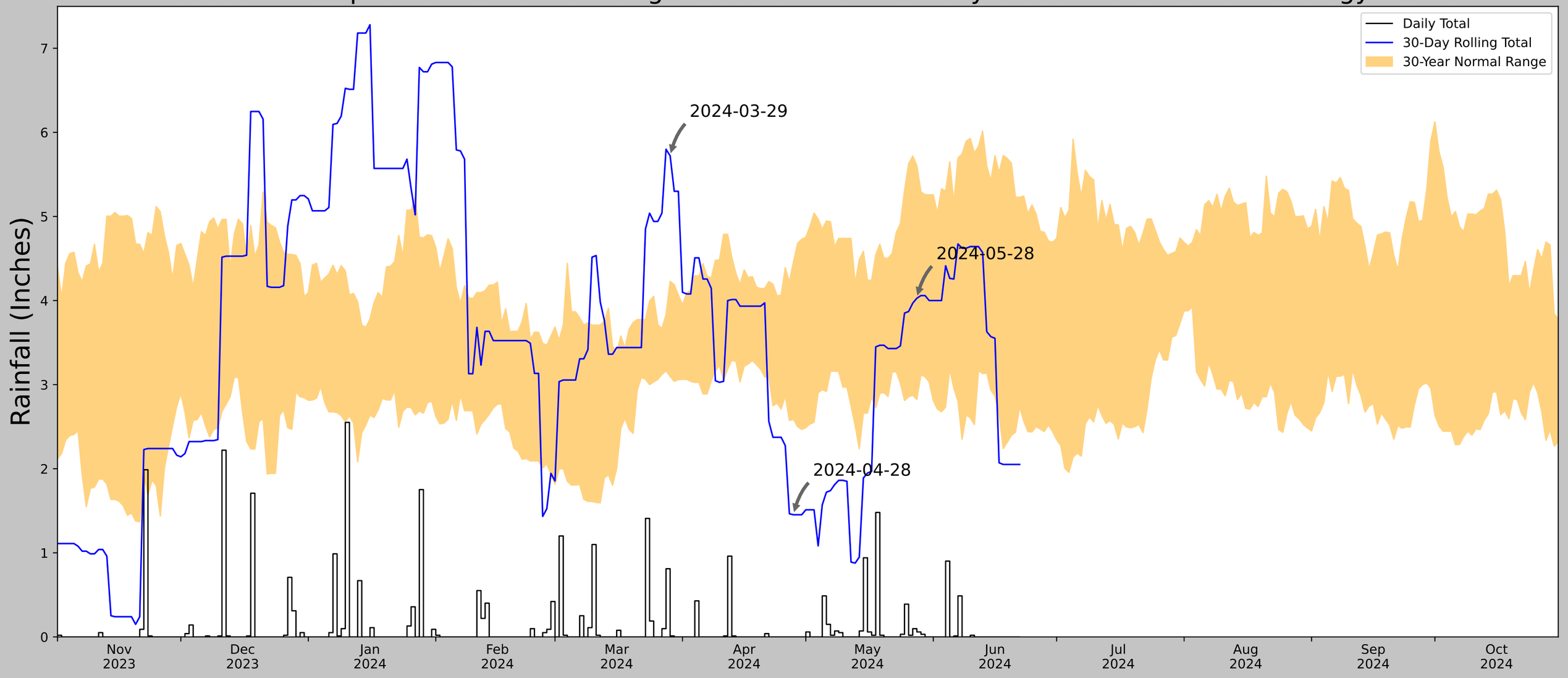
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-28 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-28 | 2.823622 | 5.60748 | 4.027559 | Normal | 2 | 3 | 6 |
| 2024-04-28 | 2.585827 | 4.46378 | 1.452756 | Dry | 1 | 2 | 2 |
| 2024-03-29 | 3.098425 | 4.22874 | 5.720473 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

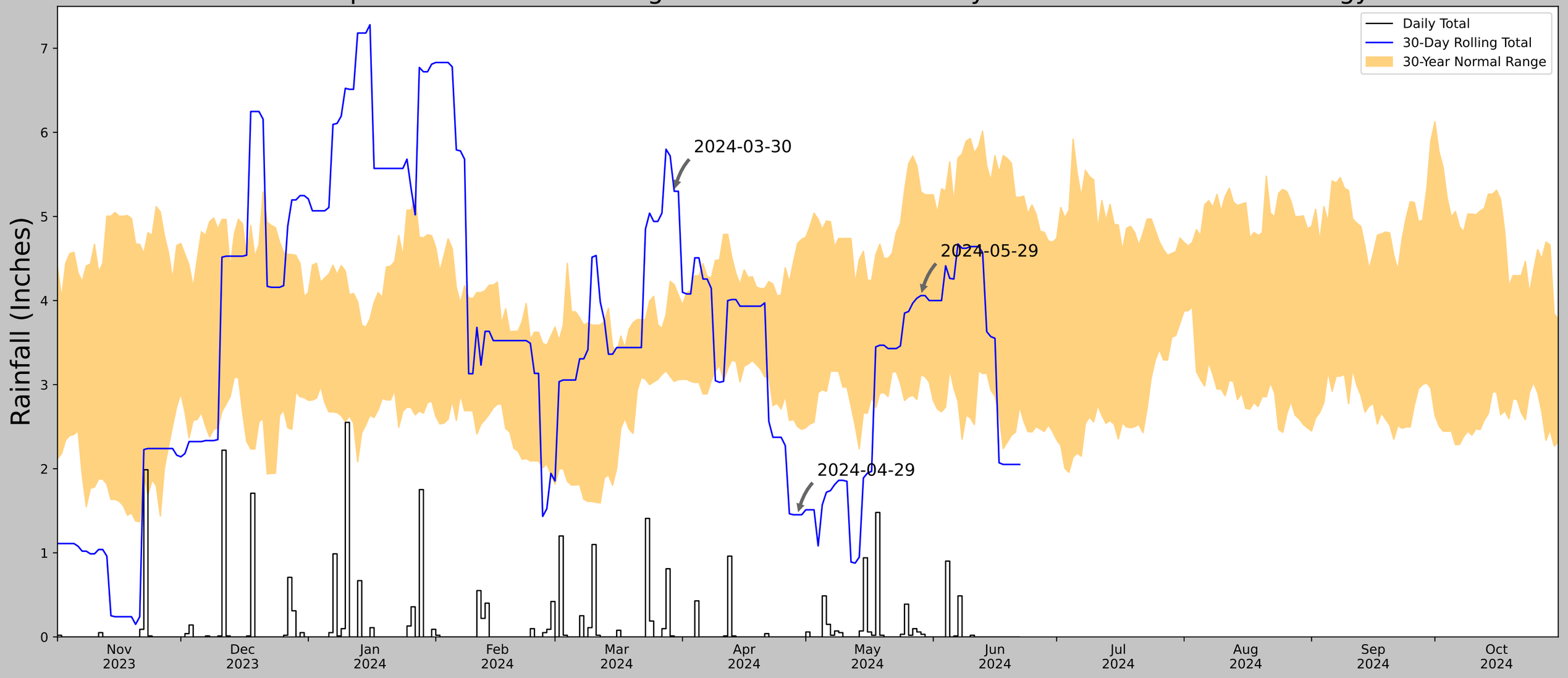
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-29 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-29 | 3.118504 | 5.29252 | 4.059055 | Normal | 2 | 3 | 6 |
| 2024-04-29 | 2.500787 | 4.680709 | 1.452756 | Dry | 1 | 2 | 2 |
| 2024-03-30 | 3.037795 | 4.188583 | 5.299213 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 11 |

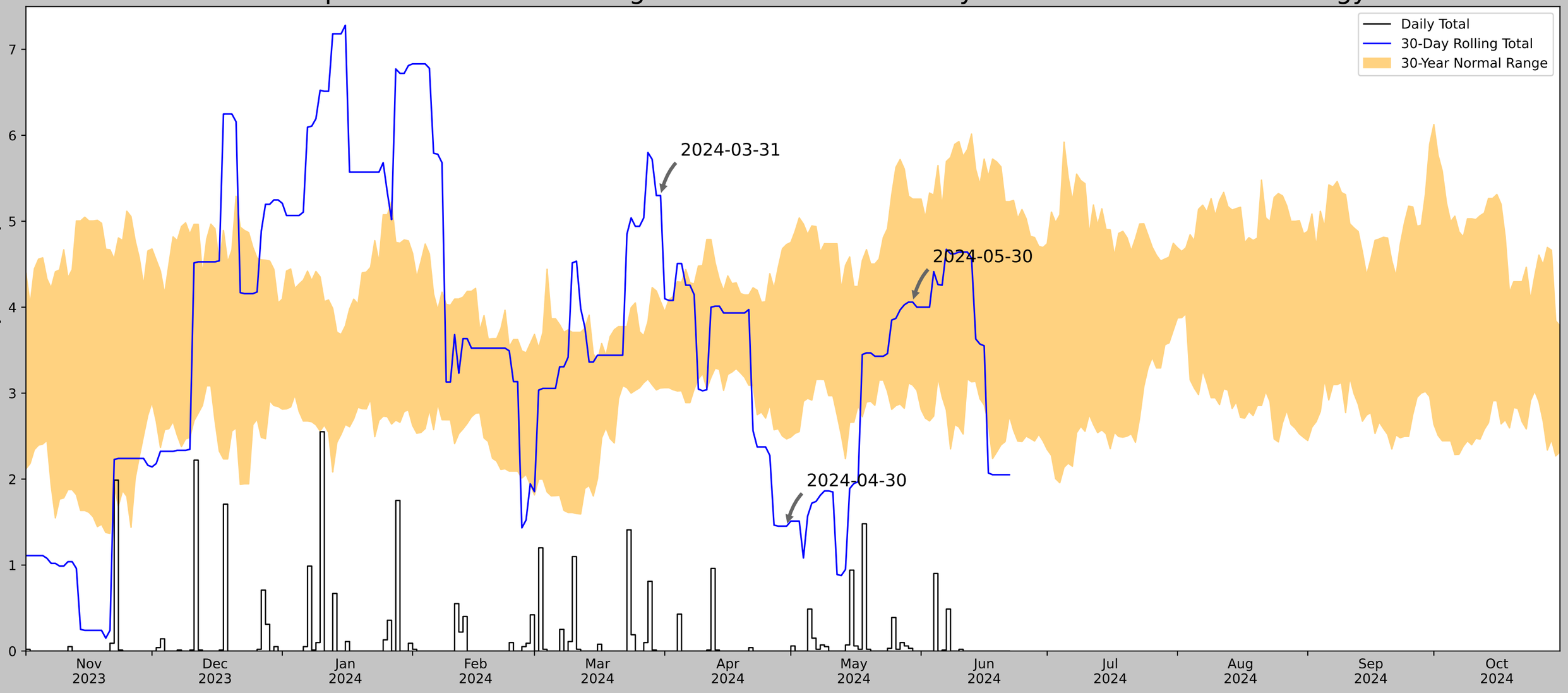
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 88 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-30 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-30 | 3.093701 | 5.258268 | 4.059055 | Normal | 2 | 3 | 6 |
| 2024-04-30 | 2.467323 | 4.729528 | 1.452756 | Dry | 1 | 2 | 2 |
| 2024-03-31 | 3.059843 | 4.066142 | 5.299213 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

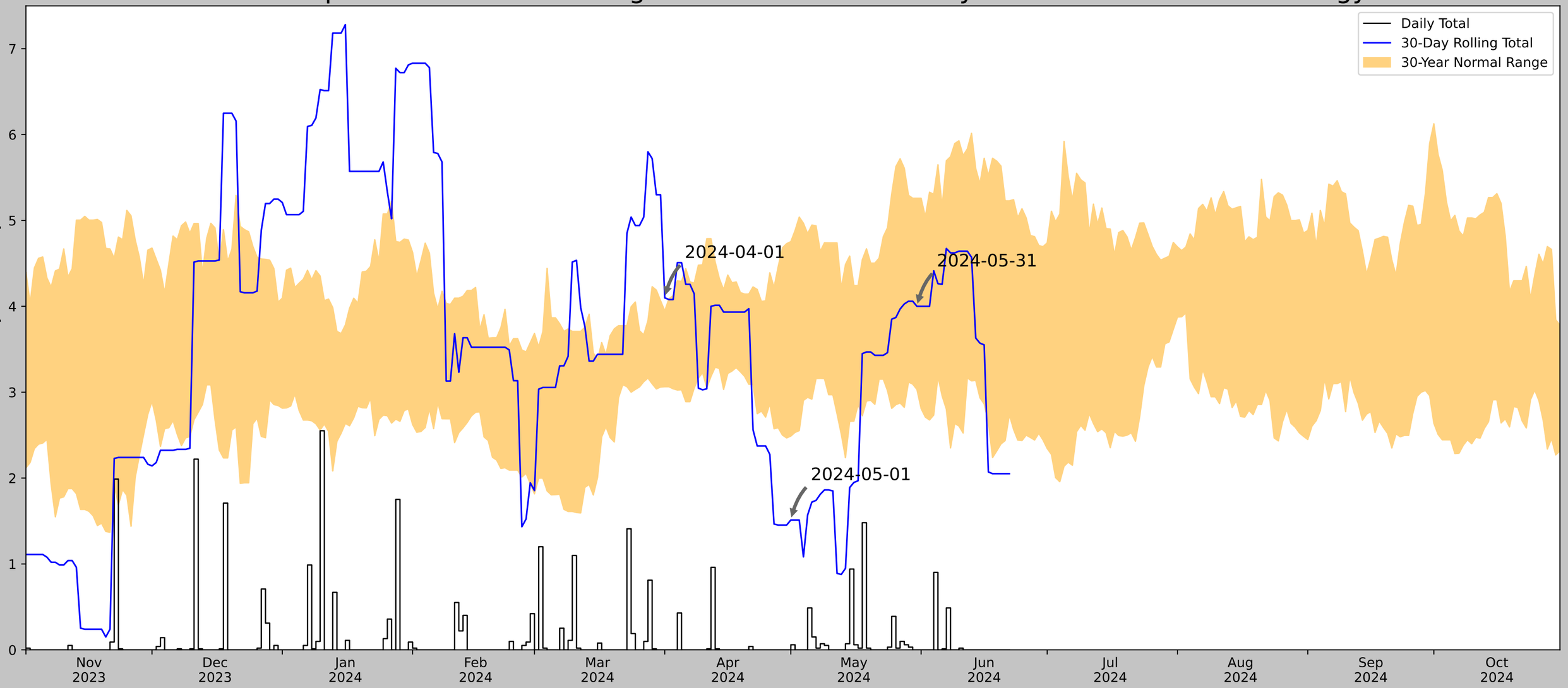
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 88 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711389, -79.465278 |
| Observation Date | 2024-05-31 |
| Elevation (ft) | 811.706 |
| Drought Index (PDSI) | Normal |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-05-31 | 3.03189 | 5.258268 | 4.0 | Normal | 2 | 3 | 6 |
| 2024-05-01 | 2.488976 | 4.75315 | 1.511811 | Dry | 1 | 2 | 2 |
| 2024-04-01 | 3.062992 | 3.946063 | 4.098425 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

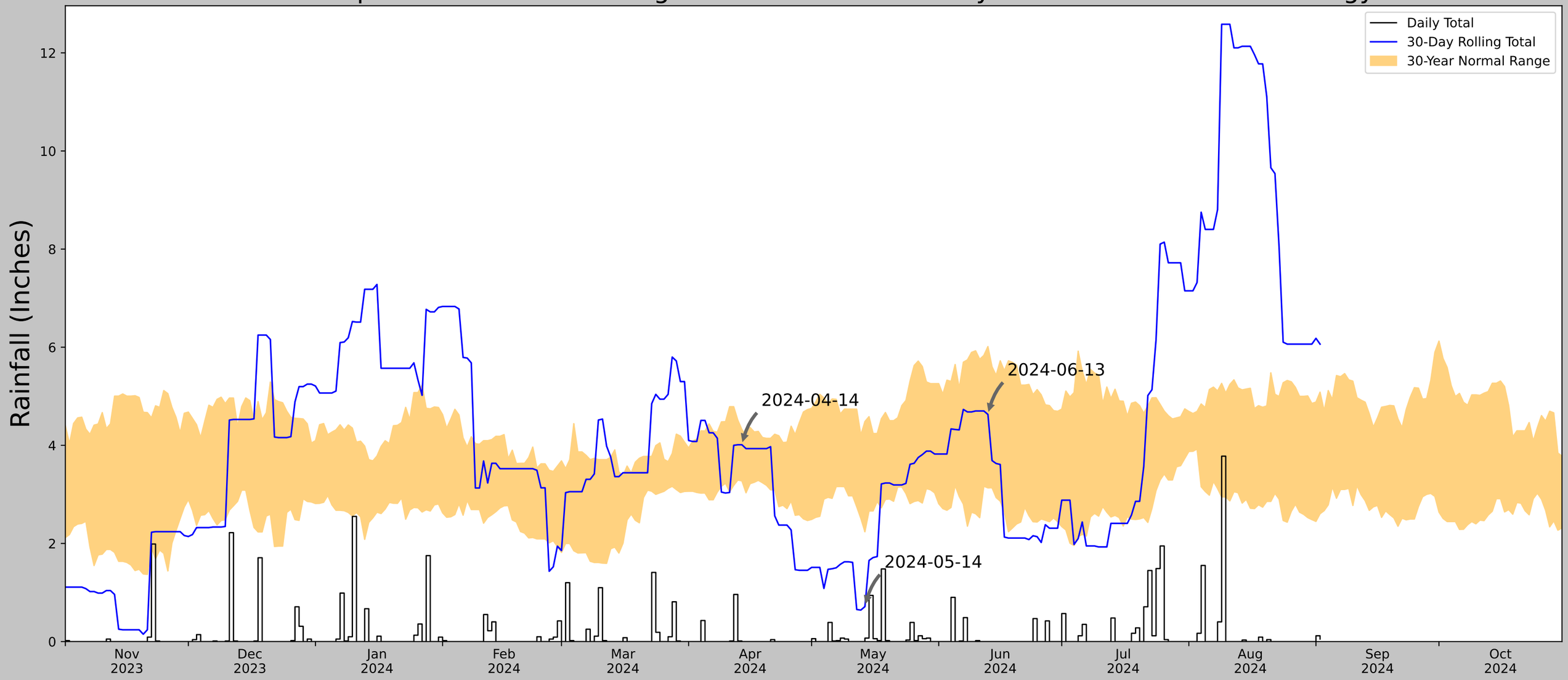
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.22 | 164.724 | 5.053 | 11342 | 88 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1122, -79.275 | 528.871 | 21.403 | 118.111 | 12.159 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.781389, -79.383889 |
| Observation Date | 2024-06-13 |
| Elevation (ft) | 652.107 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Dry Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-06-13 | 3.13189 | 6.014567 | 4.629921 | Normal | 2 | 3 | 6 |
| 2024-05-14 | 2.237008 | 4.487008 | 0.712598 | Dry | 1 | 2 | 2 |
| 2024-04-14 | 3.275984 | 4.322047 | 4.011811 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 10 |

US Army Corps of Engineers

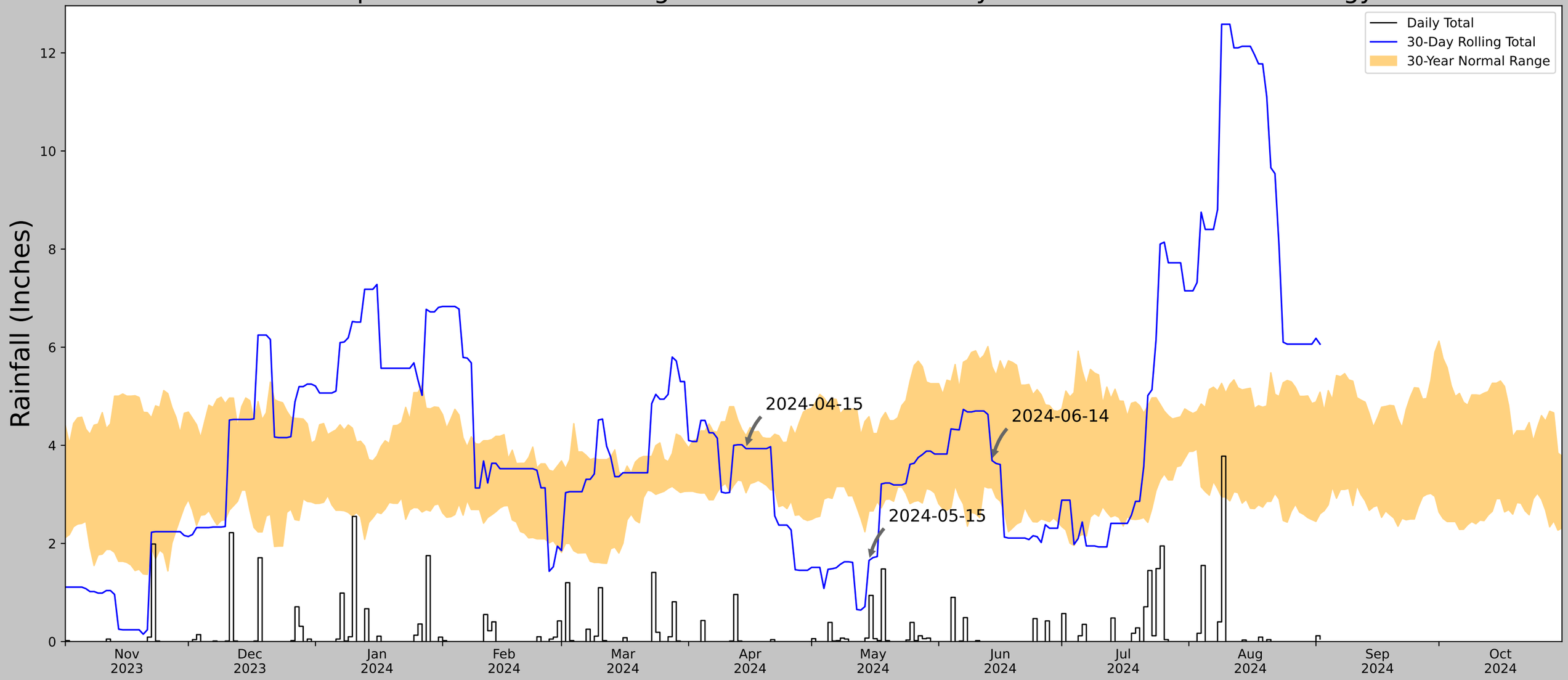
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 3.157 | 5.125 | 1.437 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.781389, -79.383889 |
| Observation Date | 2024-06-14 |
| Elevation (ft) | 652.107 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Dry Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-06-14 | 3.135827 | 5.602362 | 3.688976 | Normal | 2 | 3 | 6 |
| 2024-05-15 | 2.661024 | 4.585433 | 1.653543 | Dry | 1 | 2 | 2 |
| 2024-04-15 | 3.03189 | 4.193701 | 3.933071 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 10 |

US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 3.157 | 5.125 | 1.437 | 11342 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network

| | |
|---|---|
| Coordinates | 36.781389, -79.383889 |
| Observation Date | 2024-07-07 |
| Elevation (ft) | 652.107 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Dry Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-07-07 | 2.149213 | 5.240551 | 1.948819 | Dry | 1 | 3 | 3 |
| 2024-06-07 | 2.802362 | 5.695276 | 4.732284 | Normal | 2 | 2 | 4 |
| 2024-05-08 | 3.16063 | 4.63937 | 1.574803 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Drier than Normal - 8 |

US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 3.157 | 5.125 | 1.437 | 11342 | 86 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 2 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network

| | |
|---|---|
| Coordinates | 36.781389, -79.383889 |
| Observation Date | 2024-07-08 |
| Elevation (ft) | 652.107 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Dry Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-07-08 | 2.539764 | 5.549213 | 1.948819 | Dry | 1 | 3 | 3 |
| 2024-06-08 | 2.350787 | 5.742126 | 4.681103 | Normal | 2 | 2 | 4 |
| 2024-05-09 | 3.157087 | 4.73937 | 1.625984 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Drier than Normal - 8 |

US Army Corps of Engineers

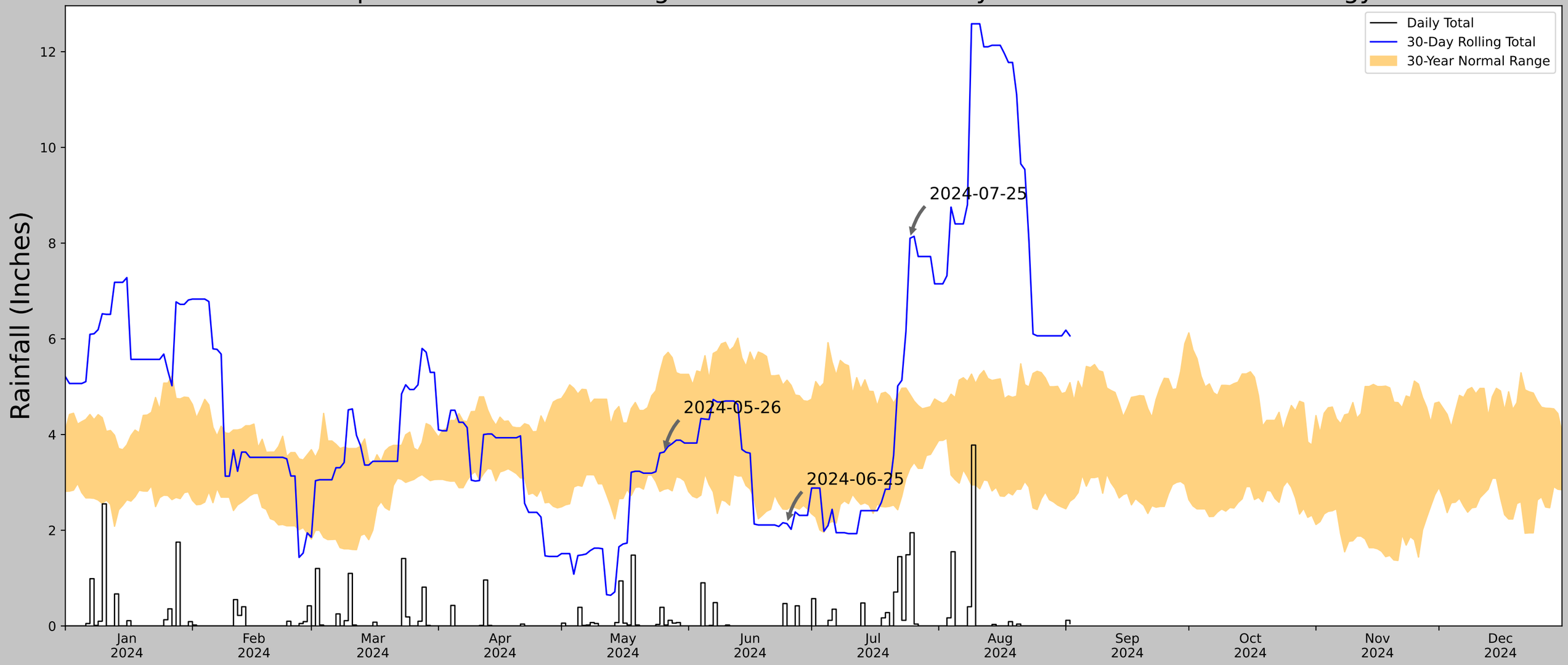
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 3.157 | 5.125 | 1.437 | 11342 | 86 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 2 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.781389, -79.383889 |
| Observation Date | 2024-07-25 |
| Elevation (ft) | 652.107 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Dry Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-07-25 | 3.293307 | 4.836221 | 8.102362 | Wet | 3 | 3 | 9 |
| 2024-06-25 | 2.436614 | 5.137008 | 2.137795 | Dry | 1 | 2 | 2 |
| 2024-05-26 | 2.854725 | 5.627166 | 3.633858 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 13 |

US Army Corps of Engineers

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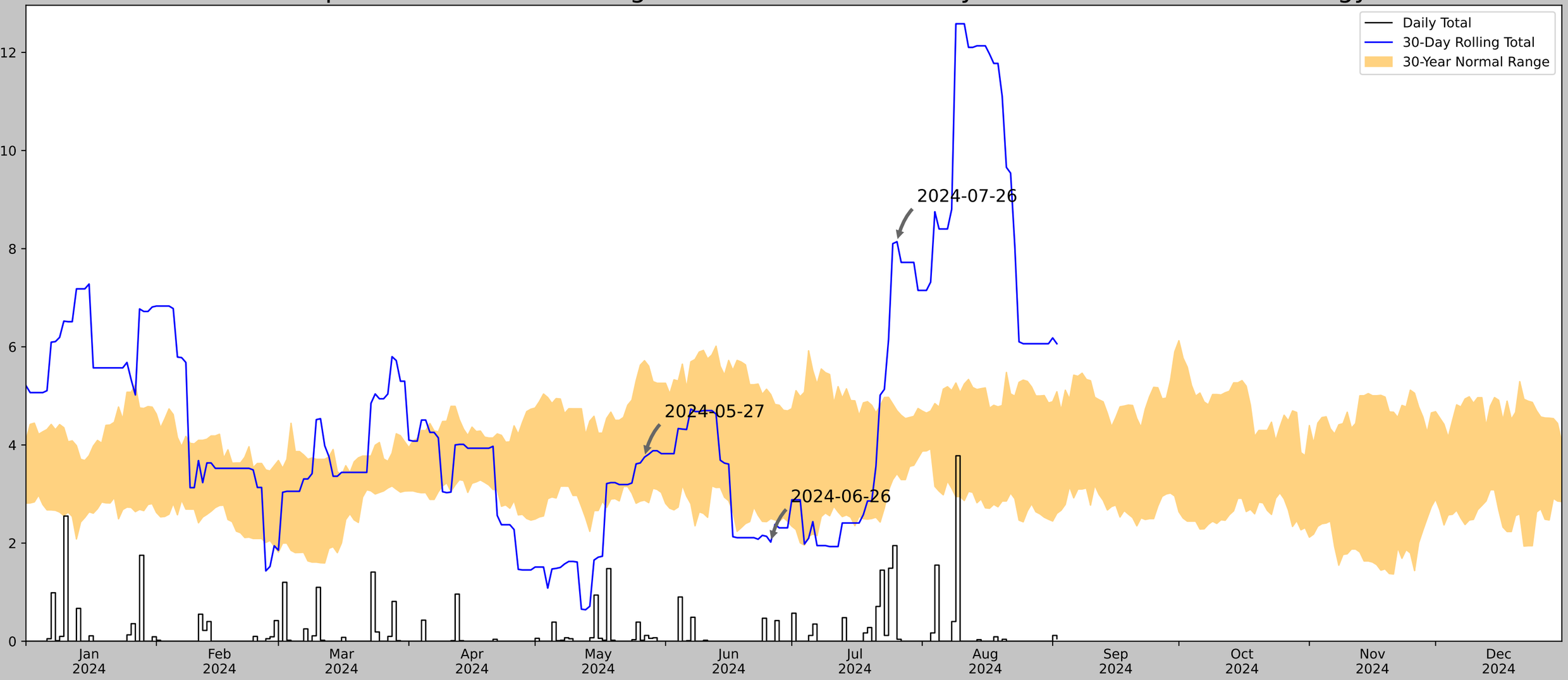
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 3.157 | 5.125 | 1.437 | 11342 | 86 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 2 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.781389, -79.383889 |
| Observation Date | 2024-07-26 |
| Elevation (ft) | 652.107 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Dry Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-07-26 | 3.416536 | 4.698032 | 8.141733 | Wet | 3 | 3 | 9 |
| 2024-06-26 | 2.499606 | 5.029528 | 2.019685 | Dry | 1 | 2 | 2 |
| 2024-05-27 | 2.87441 | 5.718504 | 3.751969 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 13 |

US Army Corps of Engineers

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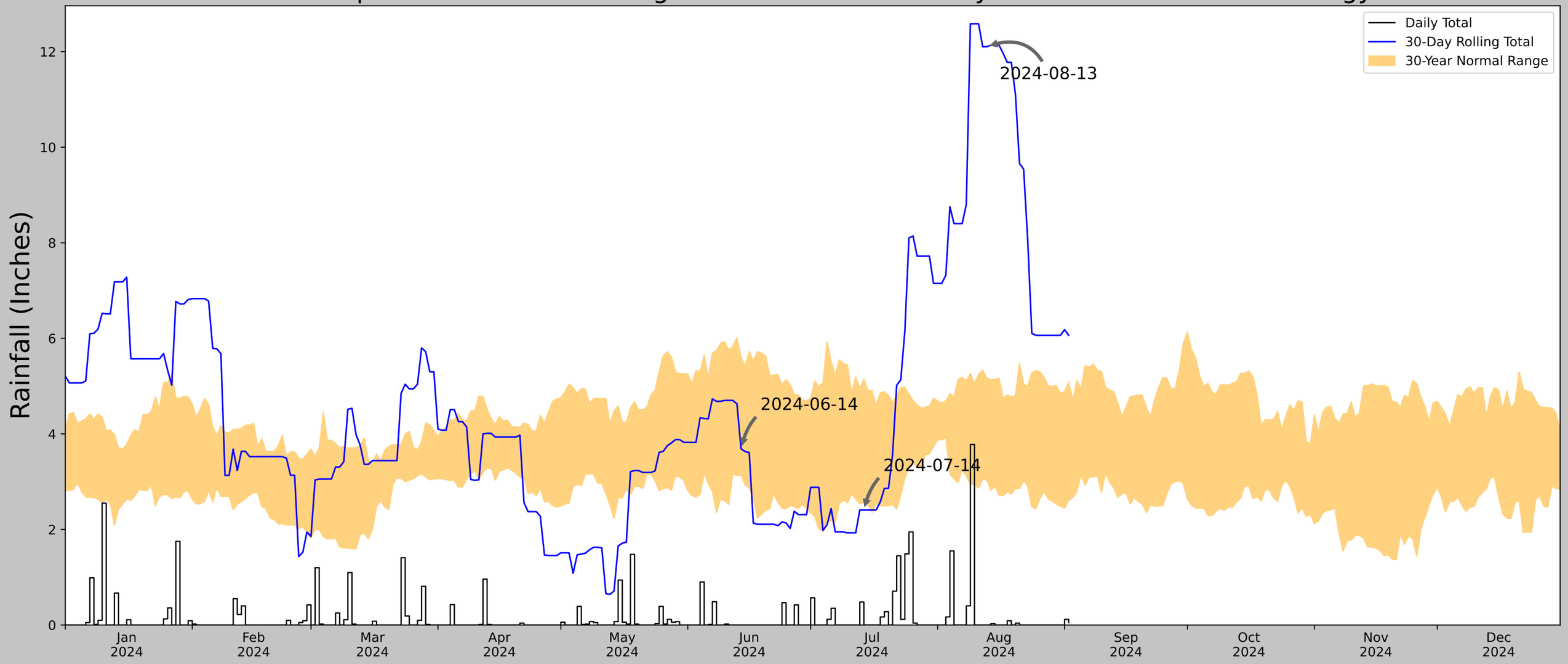
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 3.157 | 5.125 | 1.437 | 11342 | 86 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 2 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.781389, -79.383889 |
| Observation Date | 2024-08-13 |
| Elevation (ft) | 652.107 |
| Drought Index (PDSI) | Mild drought (2024-07) |
| WebWIMP $H_2O$ Balance | Dry Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-08-13 | 3.035433 | 5.170866 | 12.102363 | Wet | 3 | 3 | 9 |
| 2024-07-14 | 2.572835 | 5.144882 | 2.409449 | Dry | 1 | 2 | 2 |
| 2024-06-14 | 3.135827 | 5.602362 | 3.688976 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 13 |

US Army Corps of Engineers

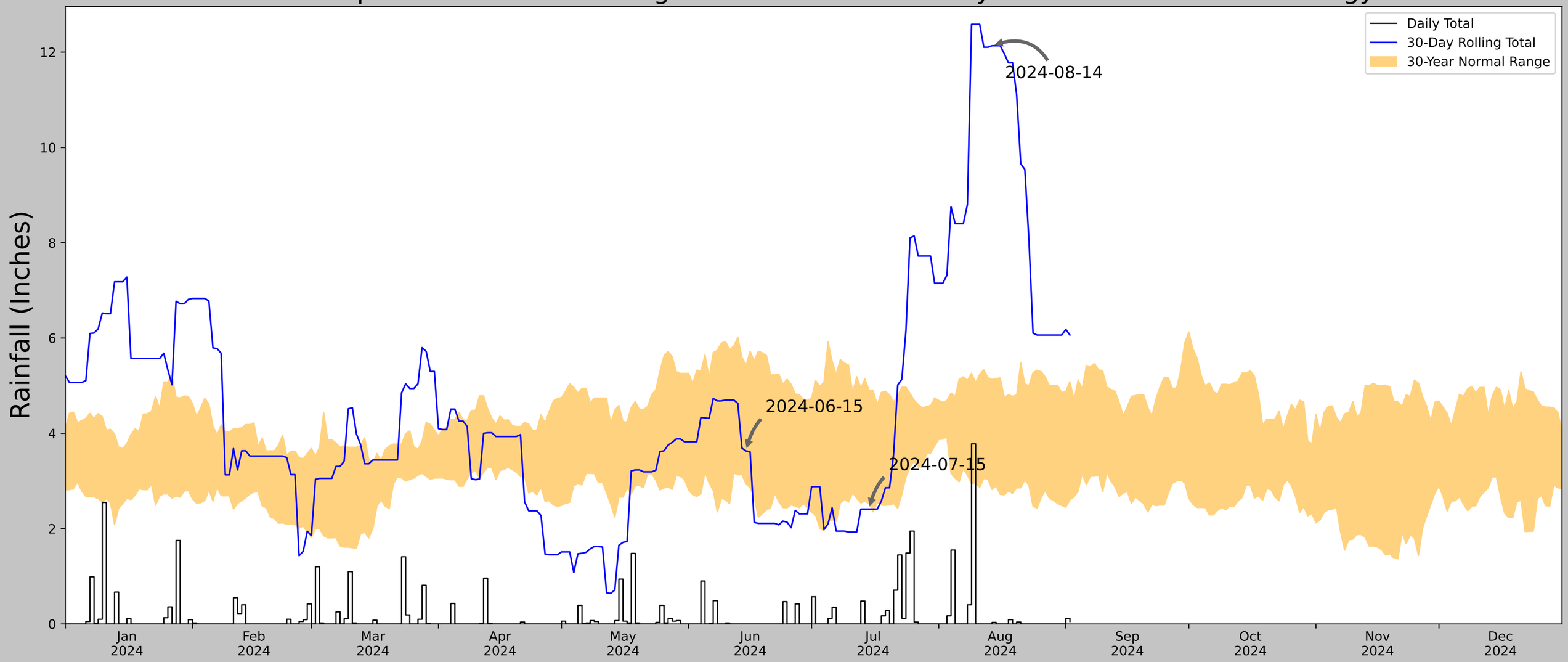
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 3.157 | 5.125 | 1.437 | 11342 | 86 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 2 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.781389, -79.383889 |
| Observation Date | 2024-08-14 |
| Elevation (ft) | 652.107 |
| Drought Index (PDSI) | Mild drought (2024-07) |
| WebWIMP $H_2O$ Balance | Dry Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-08-14 | 2.821654 | 5.130315 | 12.133859 | Wet | 3 | 3 | 9 |
| 2024-07-15 | 2.527953 | 4.905512 | 2.409449 | Dry | 1 | 2 | 2 |
| 2024-06-15 | 2.934646 | 5.426378 | 3.629921 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 13 |

US Army Corps of Engineers

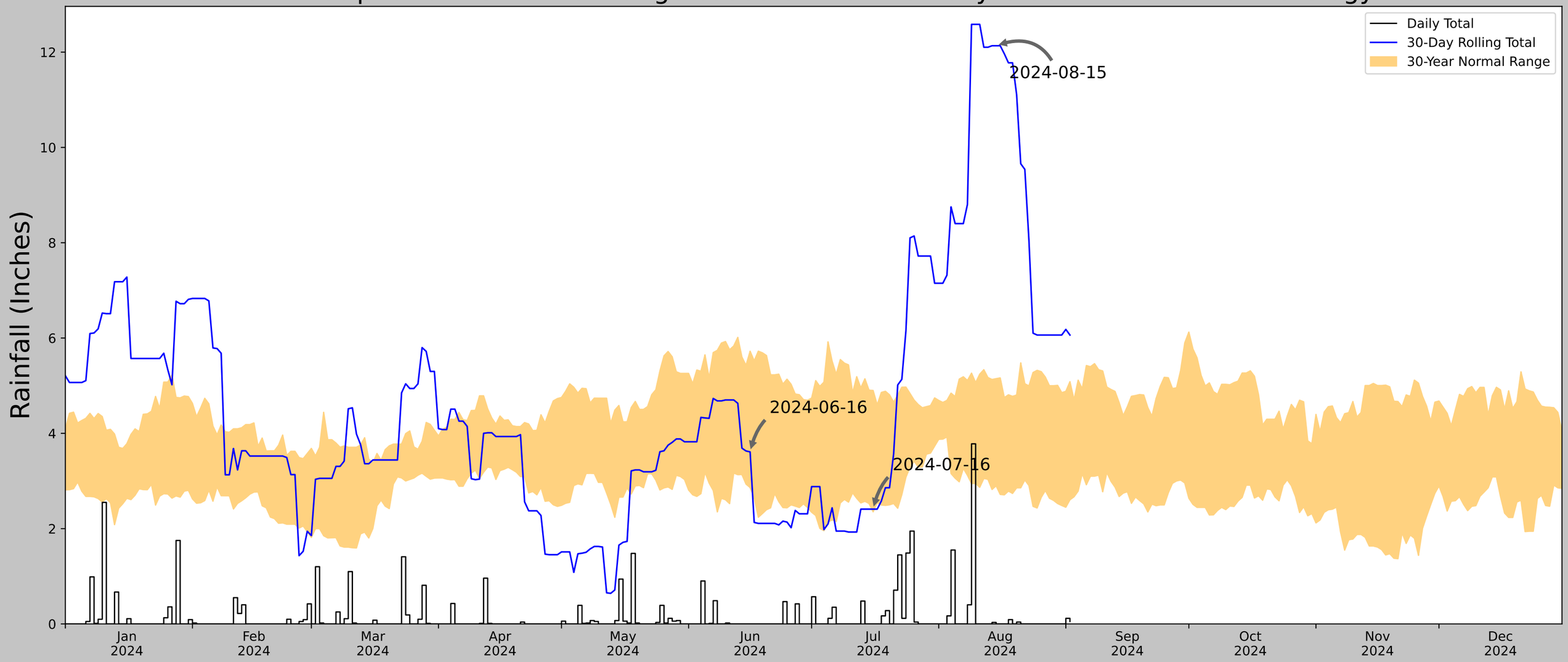
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 3.157 | 5.125 | 1.437 | 11342 | 85 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| DANVILLE 5.5 N | 36.6627, -79.4199 | 670.932 | 11.013 | 23.95 | 5.22 | 0 | 1 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 2 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.781389, -79.383889 |
| Observation Date | 2024-08-15 |
| Elevation (ft) | 652.107 |
| Drought Index (PDSI) | Mild drought (2024-07) |
| WebWIMP $H_2O$ Balance | Dry Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-08-15 | 2.898819 | 5.148032 | 12.133859 | Wet | 3 | 3 | 9 |
| 2024-07-16 | 2.353543 | 4.9 | 2.409449 | Normal | 2 | 2 | 4 |
| 2024-06-16 | 2.862599 | 5.724016 | 3.610236 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Wetter than Normal - 15 |

US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 3.157 | 5.125 | 1.437 | 11342 | 85 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| DANVILLE 5.5 N | 36.6627, -79.4199 | 670.932 | 11.013 | 23.95 | 5.22 | 0 | 1 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 2 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network

| | |
|---|---|
| Coordinates | 36.781389, -79.383889 |
| Observation Date | 2024-08-16 |
| Elevation (ft) | 652.107 |
| Drought Index (PDSI) | Mild drought (2024-07) |
| WebWIMP $H_2O$ Balance | Dry Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-08-16 | 2.717323 | 5.163386 | 12.133859 | Wet | 3 | 3 | 9 |
| 2024-07-17 | 2.545669 | 4.598032 | 2.409449 | Dry | 1 | 2 | 2 |
| 2024-06-17 | 2.647638 | 5.52126 | 2.129921 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Normal Conditions - 12 |

US Army Corps of Engineers

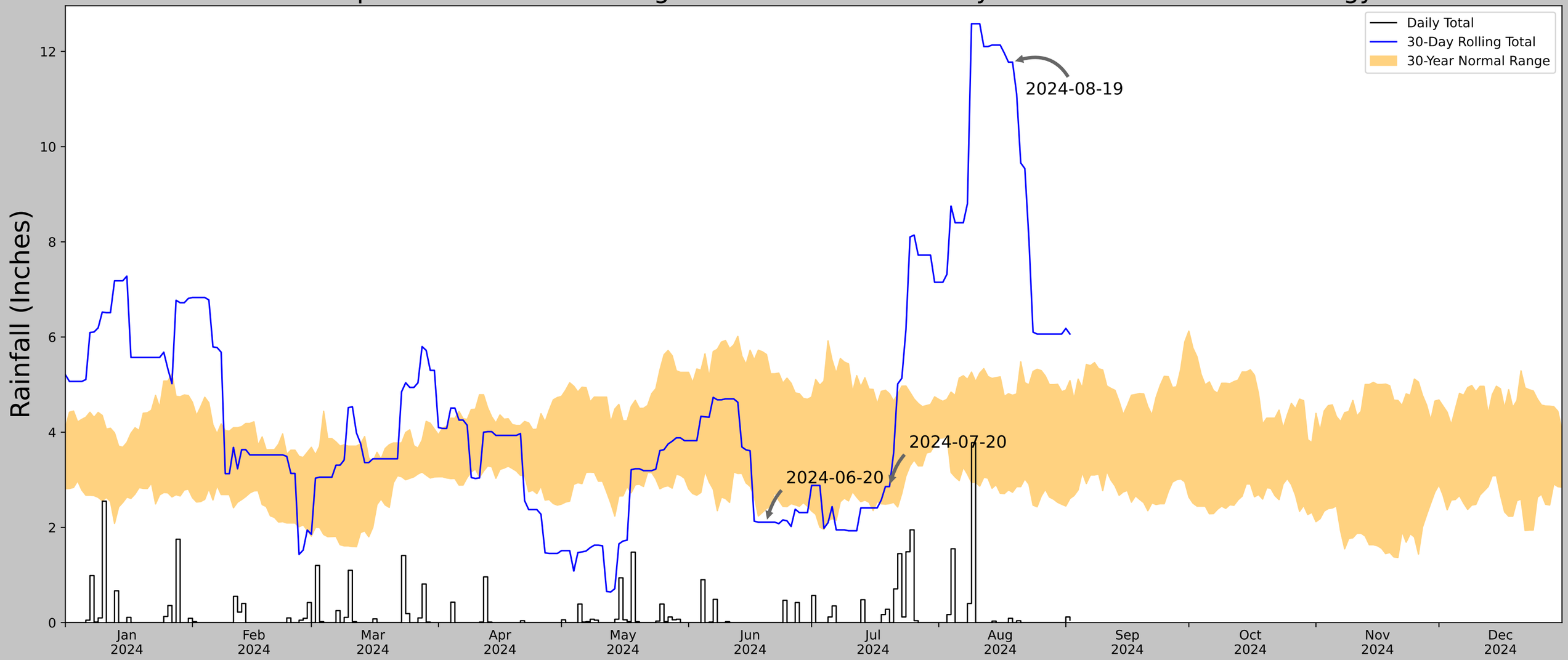
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 3.157 | 5.125 | 1.437 | 11342 | 85 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| DANVILLE 5.5 N | 36.6627, -79.4199 | 670.932 | 11.013 | 23.95 | 5.22 | 0 | 1 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 2 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.781389, -79.383889 |
| Observation Date | 2024-08-19 |
| Elevation (ft) | 652.107 |
| Drought Index (PDSI) | Mild drought (2024-07) |
| WebWIMP $H_2O$ Balance | Dry Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-08-19 | 2.738976 | 4.776772 | 11.775591 | Wet | 3 | 3 | 9 |
| 2024-07-20 | 2.499606 | 4.808662 | 2.858268 | Normal | 2 | 2 | 4 |
| 2024-06-20 | 2.397244 | 5.633071 | 2.110236 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Normal Conditions - 14 |

US Army Corps of Engineers

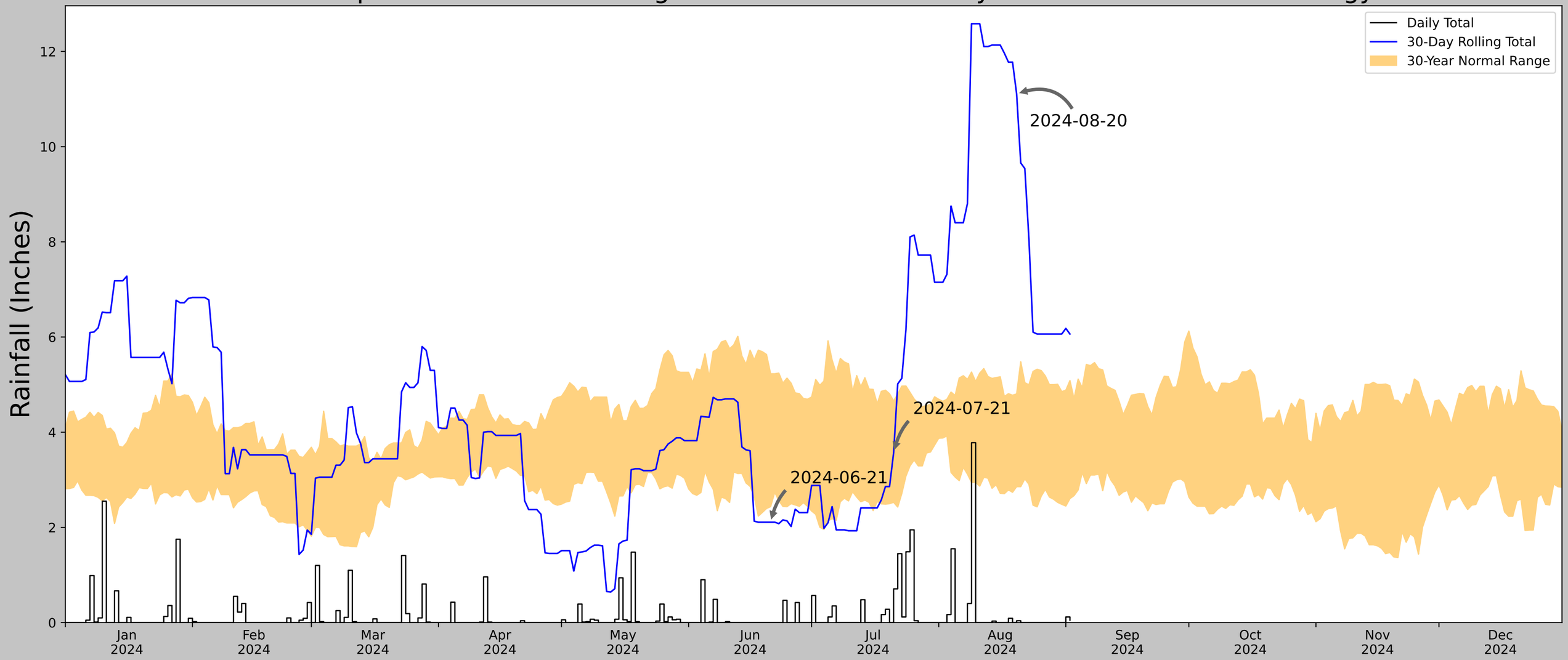
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 3.157 | 5.125 | 1.437 | 11342 | 85 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| DANVILLE 5.5 N | 36.6627, -79.4199 | 670.932 | 11.013 | 23.95 | 5.22 | 0 | 1 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 2 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.781389, -79.383889 |
| Observation Date | 2024-08-20 |
| Elevation (ft) | 652.107 |
| Drought Index (PDSI) | Mild drought (2024-07) |
| WebWIMP $H_2O$ Balance | Dry Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-08-20 | 2.856299 | 4.803543 | 11.1063 | Wet | 3 | 3 | 9 |
| 2024-07-21 | 2.527165 | 4.655906 | 3.566929 | Normal | 2 | 2 | 4 |
| 2024-06-21 | 2.436614 | 5.228347 | 2.110236 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Normal Conditions - 14 |

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 3.157 | 5.125 | 1.437 | 11342 | 85 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| DANVILLE 5.5 N | 36.6627, -79.4199 | 670.932 | 11.013 | 23.95 | 5.22 | 0 | 1 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 2 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

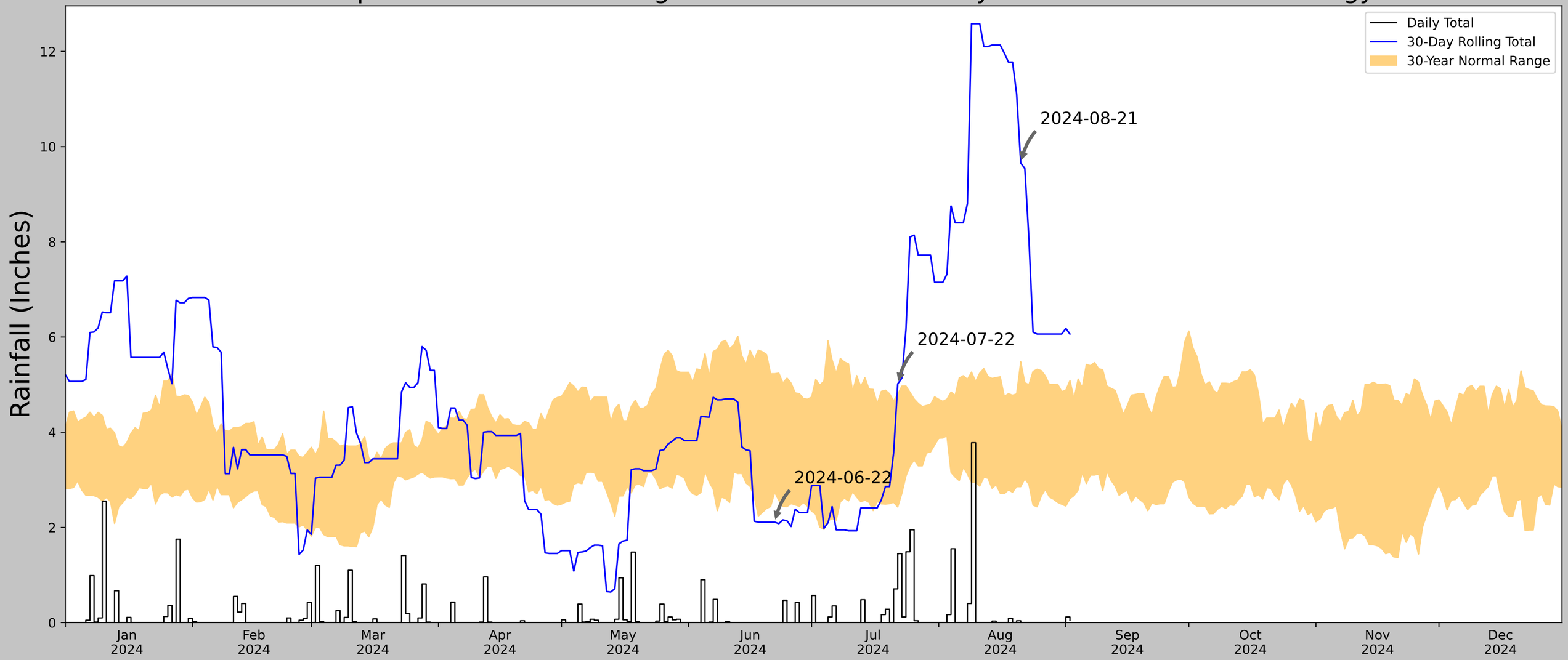
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.781389, -79.383889 |
| Observation Date | 2024-08-21 |
| Elevation (ft) | 652.107 |
| Drought Index (PDSI) | Mild drought (2024-07) |
| WebWIMP $H_2O$ Balance | Dry Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-08-21 | 2.856299 | 5.479134 | 9.657481 | Wet | 3 | 3 | 9 |
| 2024-07-22 | 2.427953 | 4.800394 | 5.015748 | Wet | 3 | 2 | 6 |
| 2024-06-22 | 2.737402 | 5.228347 | 2.110236 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Wetter than Normal - 16 |

US Army Corps of Engineers

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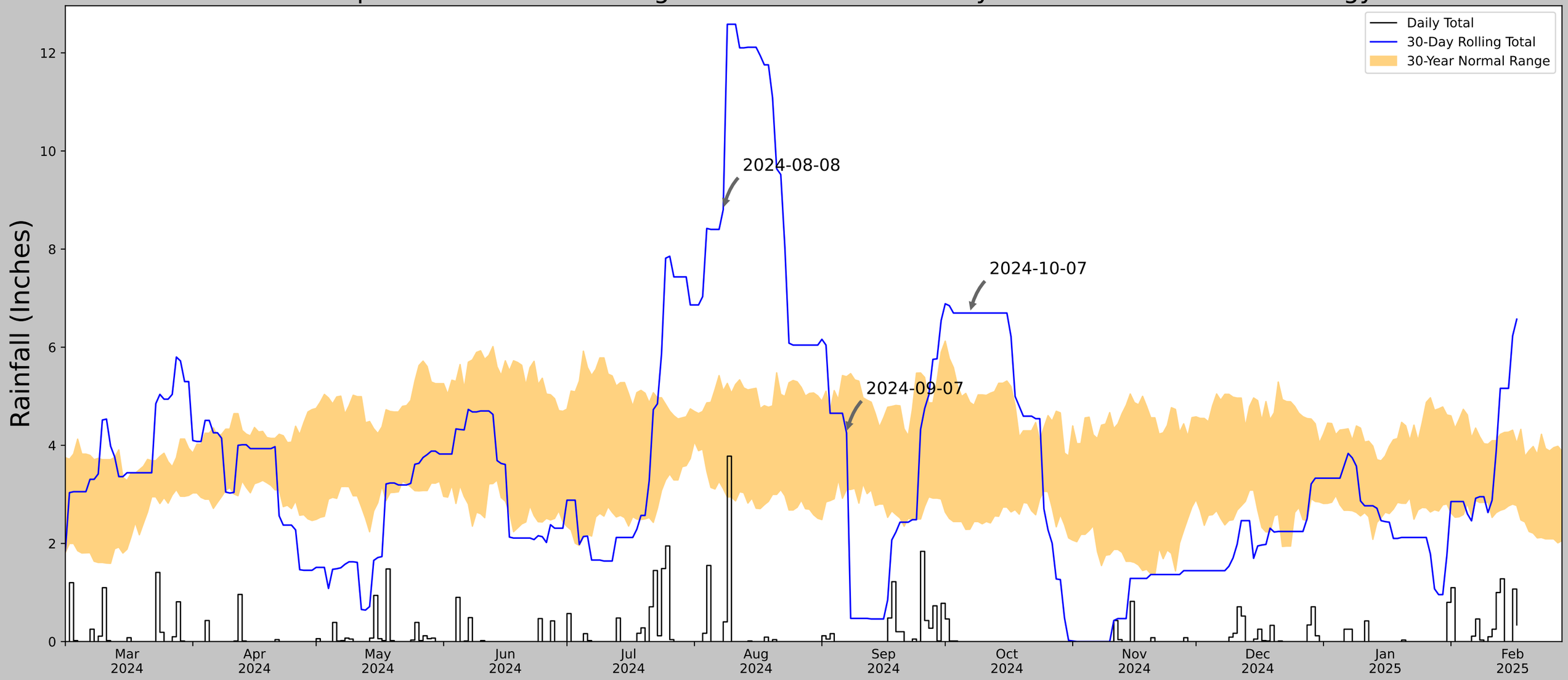
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 3.157 | 5.125 | 1.437 | 11342 | 84 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| DANVILLE 5.5 N | 36.6627, -79.4199 | 670.932 | 11.013 | 23.95 | 5.22 | 0 | 1 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 3 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.715278, -79.461389 |
| Observation Date | 2024-10-07 |
| Elevation (ft) | 791.267 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-10-07 | 2.28937 | 4.876378 | 6.696851 | Wet | 3 | 3 | 9 |
| 2024-09-07 | 3.100394 | 5.398425 | 4.251969 | Normal | 2 | 2 | 4 |
| 2024-08-08 | 3.119685 | 5.109449 | 8.80315 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Wetter than Normal - 16 |

US Army Corps of Engineers

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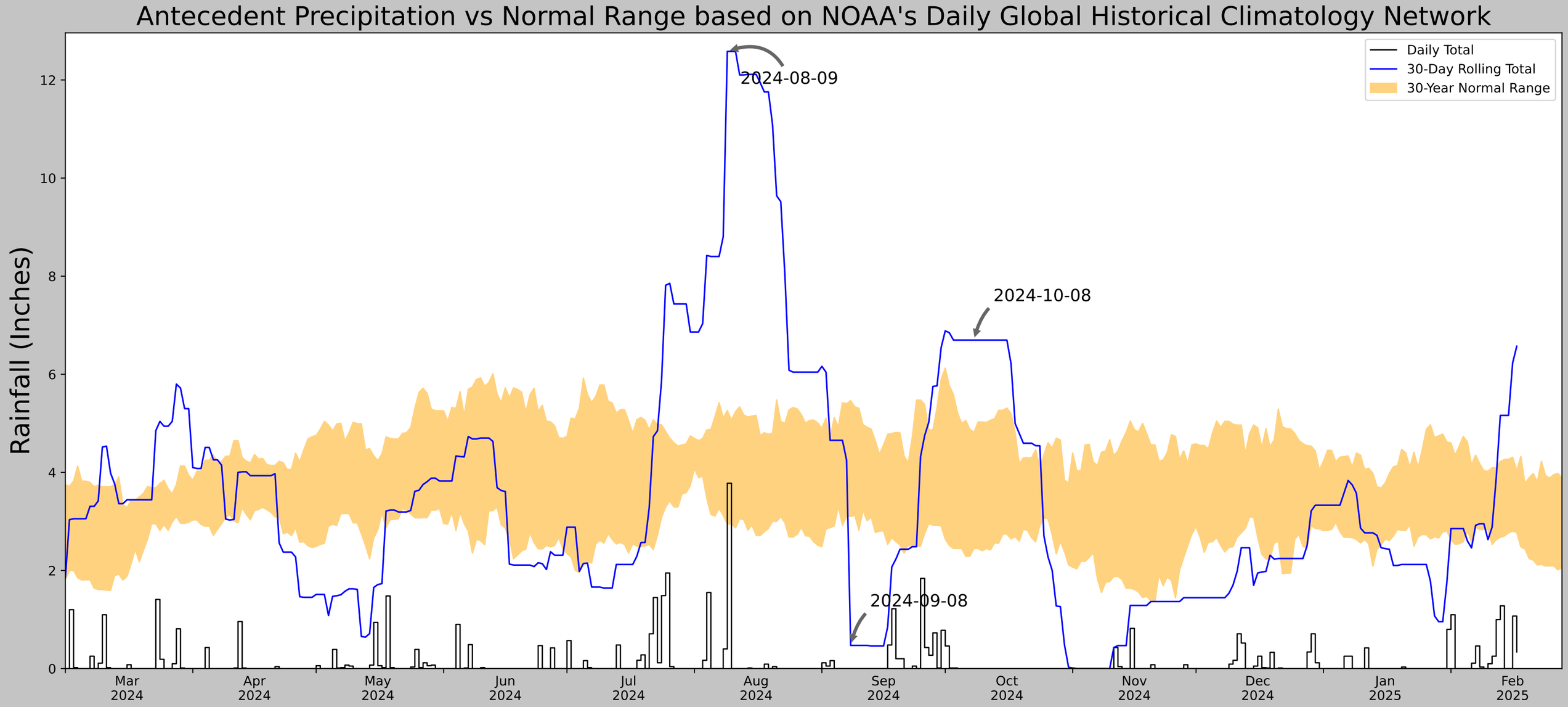
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 7.891 | 144.285 | 4.689 | 11343 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.715278, -79.461389 |
| Observation Date | 2024-10-08 |
| Elevation (ft) | 791.267 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-10-08 | 2.445669 | 4.818504 | 6.696851 | Wet | 3 | 3 | 9 |
| 2024-09-08 | 3.100394 | 5.462992 | 0.472441 | Dry | 1 | 2 | 2 |
| 2024-08-09 | 2.94685 | 5.26378 | 12.582678 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 14 |

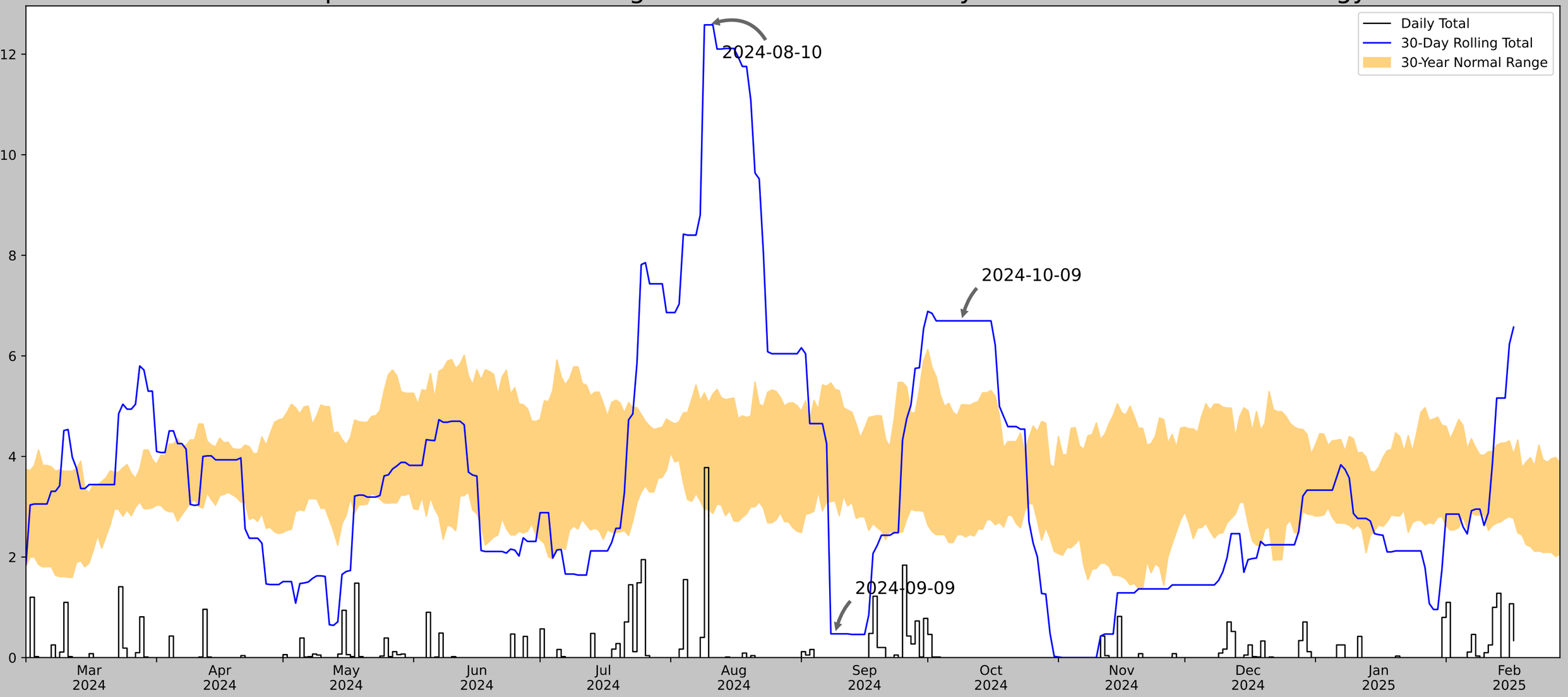
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 7.891 | 144.285 | 4.689 | 11343 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.715278, -79.461389 |
| Observation Date | 2024-10-09 |
| Elevation (ft) | 791.267 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-10-09 | 2.445669 | 5.02874 | 6.696851 | Wet | 3 | 3 | 9 |
| 2024-09-09 | 3.122441 | 5.33504 | 0.472441 | Dry | 1 | 2 | 2 |
| 2024-08-10 | 2.94685 | 5.065354 | 12.582678 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 14 |

US Army Corps of Engineers

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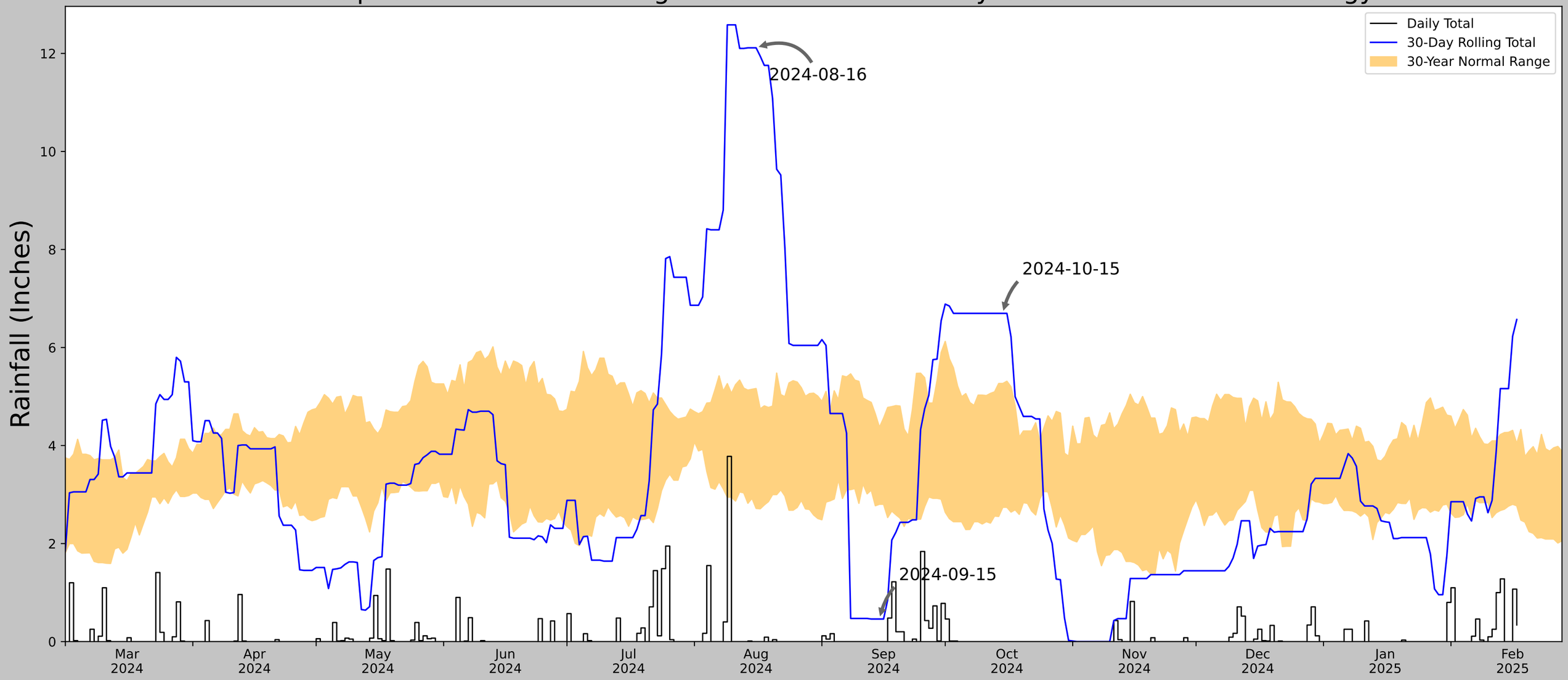
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 7.891 | 144.285 | 4.689 | 11343 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.715278, -79.461389 |
| Observation Date | 2024-10-15 |
| Elevation (ft) | 791.267 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-10-15 | 2.740158 | 5.266142 | 6.696851 | Wet | 3 | 3 | 9 |
| 2024-09-15 | 2.802362 | 4.372441 | 0.46063 | Dry | 1 | 2 | 2 |
| 2024-08-16 | 2.717323 | 5.163386 | 12.114174 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 14 |

US Army Corps of Engineers

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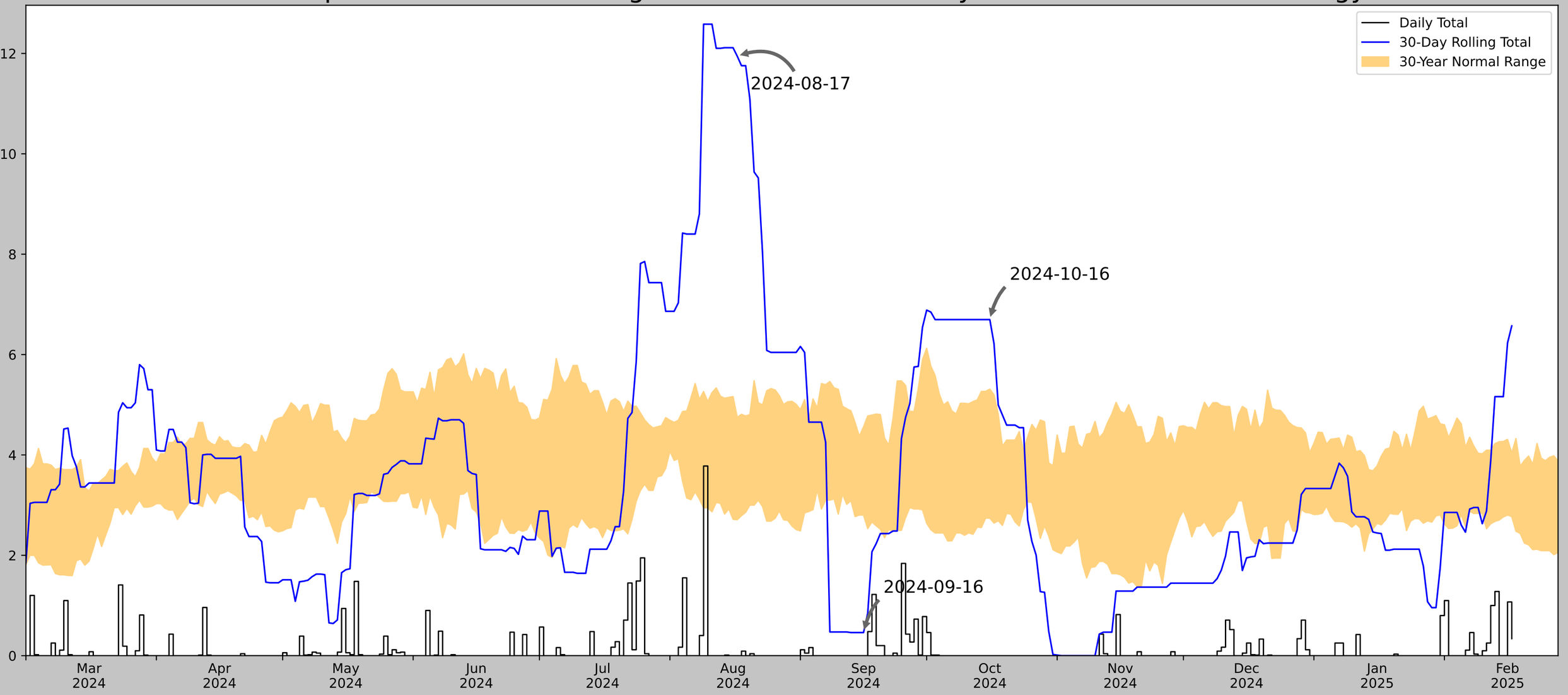
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 7.891 | 144.285 | 4.689 | 11343 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.715278, -79.461389 |
| Observation Date | 2024-10-16 |
| Elevation (ft) | 791.267 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-10-16 | 2.740158 | 5.312205 | 6.696851 | Wet | 3 | 3 | 9 |
| 2024-09-16 | 2.802362 | 4.559843 | 0.46063 | Dry | 1 | 2 | 2 |
| 2024-08-17 | 2.709055 | 4.749606 | 11.944882 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 14 |

US Army Corps of Engineers

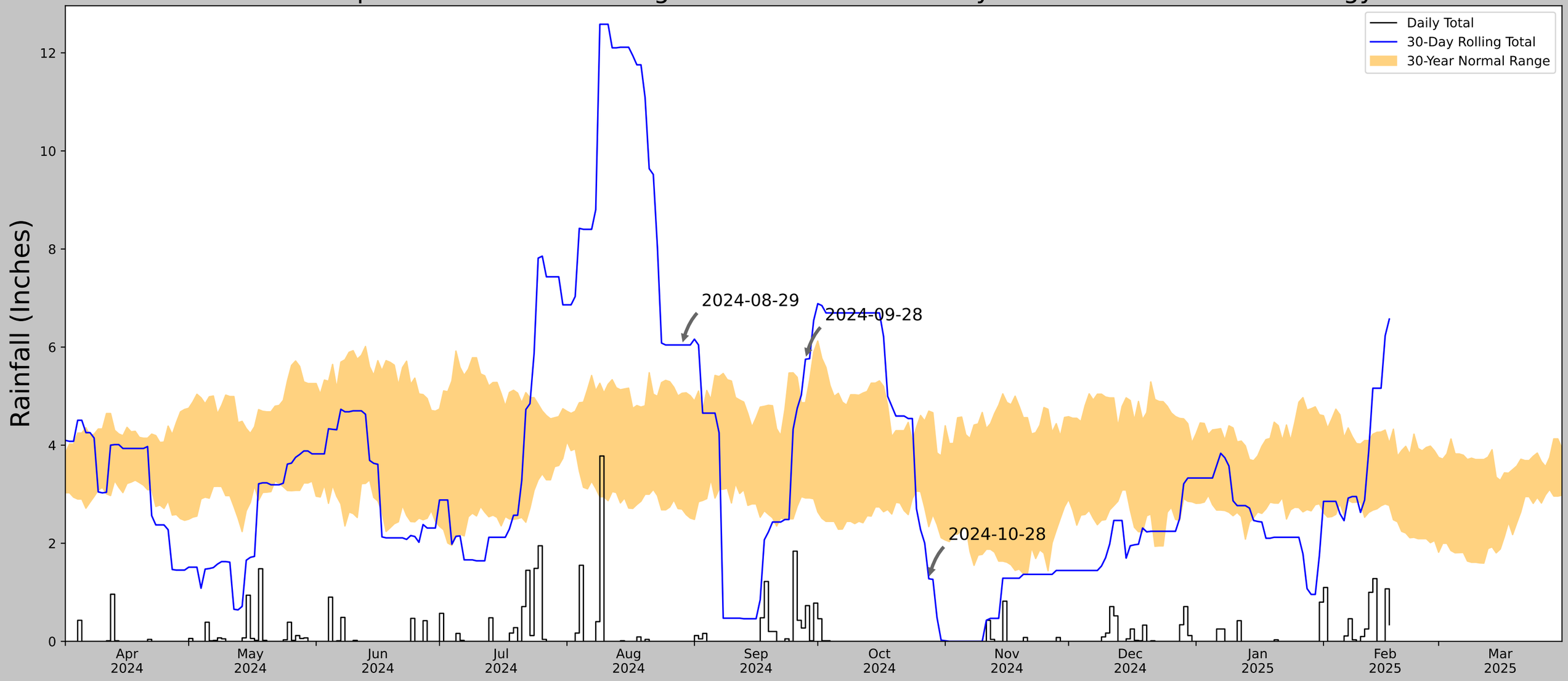
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 7.891 | 144.285 | 4.689 | 11343 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.715278, -79.461389 |
| Observation Date | 2024-10-28 |
| Elevation (ft) | 791.267 |
| Drought Index (PDSI) | Incipient drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-10-28 | 2.337795 | 4.695669 | 1.275591 | Dry | 1 | 3 | 3 |
| 2024-09-28 | 2.923228 | 4.866536 | 5.751969 | Wet | 3 | 2 | 6 |
| 2024-08-29 | 2.695669 | 5.059843 | 6.043307 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Normal Conditions - 12 |

US Army Corps of Engineers

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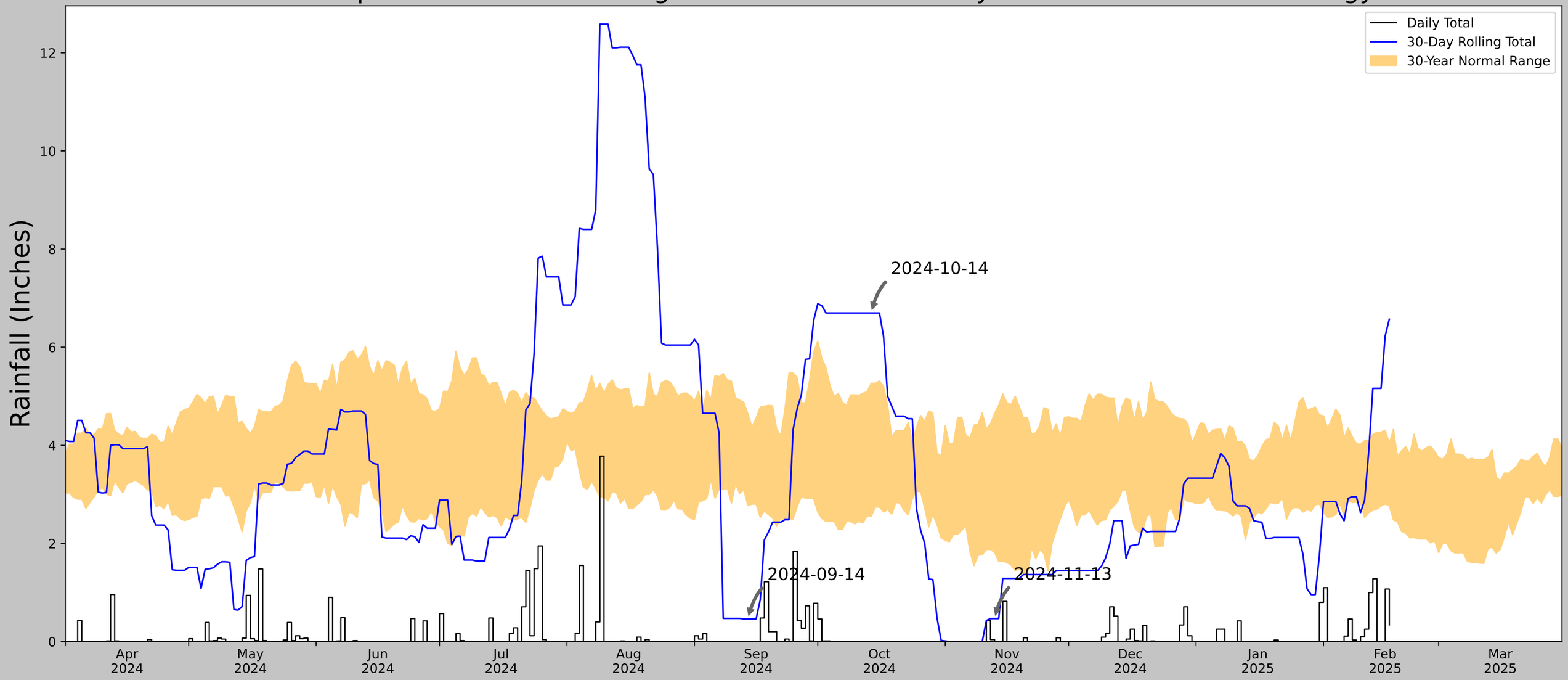
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 7.891 | 144.285 | 4.689 | 11343 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.715278, -79.461389 |
| Observation Date | 2024-11-13 |
| Elevation (ft) | 791.267 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-11-13 | 1.817717 | 4.648032 | 0.468504 | Dry | 1 | 3 | 3 |
| 2024-10-14 | 2.553937 | 5.266142 | 6.696851 | Wet | 3 | 2 | 6 |
| 2024-09-14 | 2.771654 | 4.646063 | 0.46063 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Normal Conditions - 10 |

US Army Corps of Engineers

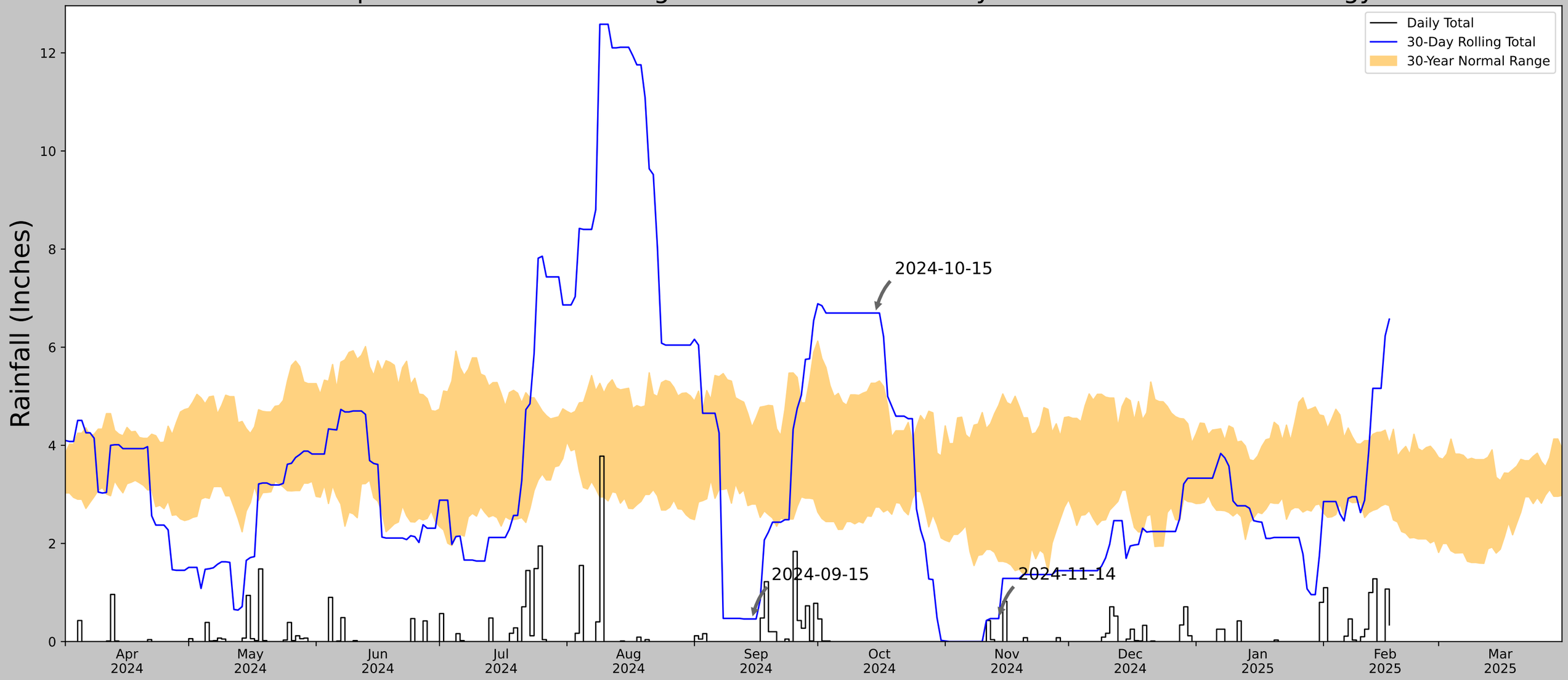
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 7.891 | 144.285 | 4.689 | 11343 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.715278, -79.461389 |
| Observation Date | 2024-11-14 |
| Elevation (ft) | 791.267 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-11-14 | 1.635039 | 4.816142 | 0.468504 | Dry | 1 | 3 | 3 |
| 2024-10-15 | 2.740158 | 5.266142 | 6.696851 | Wet | 3 | 2 | 6 |
| 2024-09-15 | 2.802362 | 4.372441 | 0.46063 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Normal Conditions - 10 |

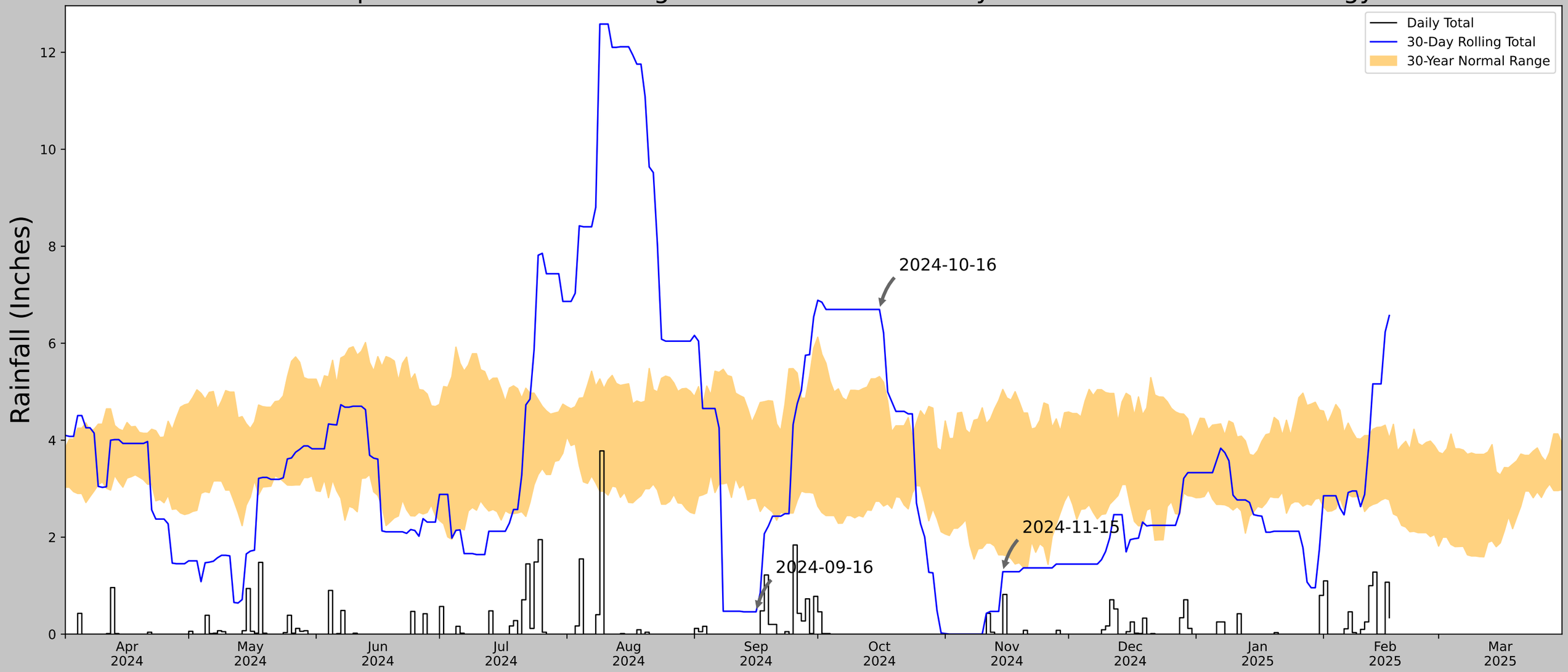
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 7.891 | 144.285 | 4.689 | 11343 | 90 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.715278, -79.461389 |
| Observation Date | 2024-11-15 |
| Elevation (ft) | 791.267 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-11-15 | 1.635039 | 5.047638 | 1.287402 | Dry | 1 | 3 | 3 |
| 2024-10-16 | 2.740158 | 5.312205 | 6.696851 | Wet | 3 | 2 | 6 |
| 2024-09-16 | 2.802362 | 4.559843 | 0.46063 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Normal Conditions - 10 |

US Army Corps of Engineers

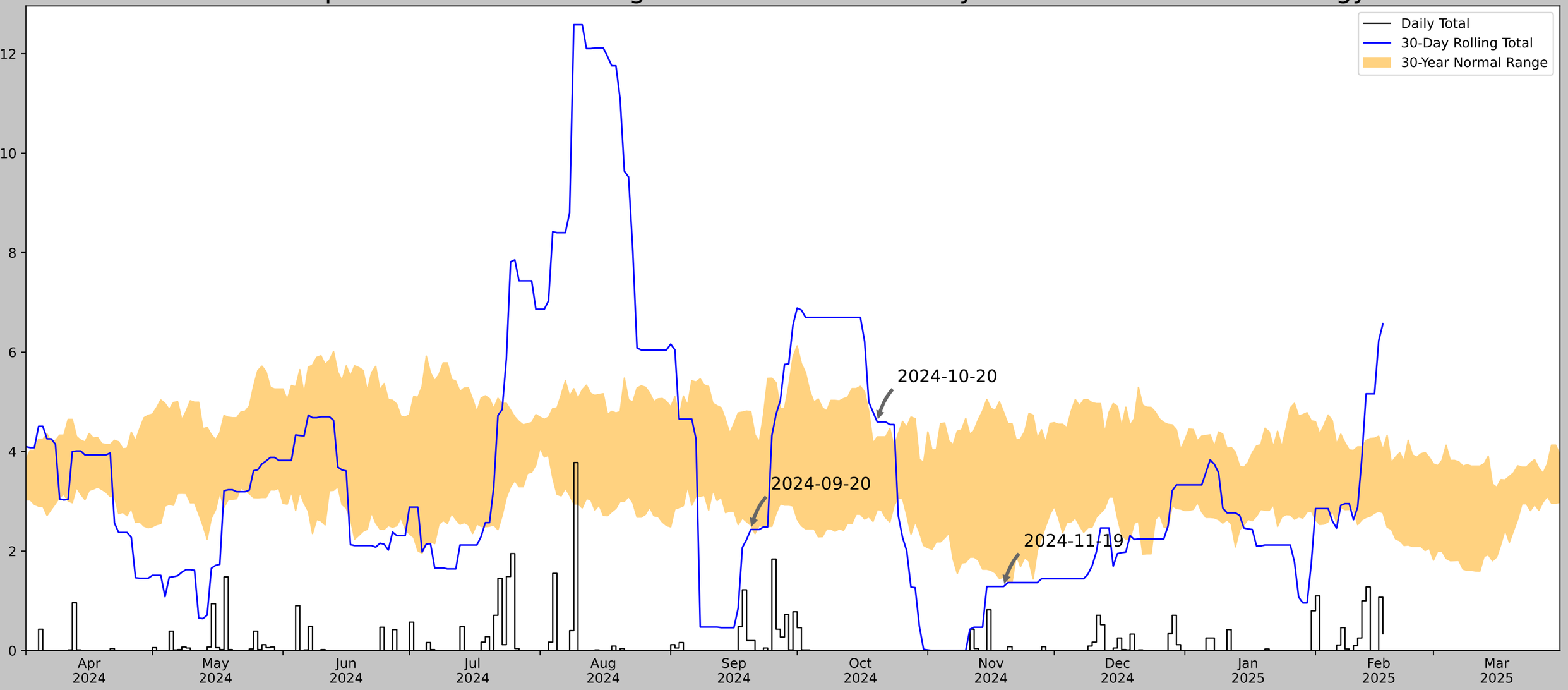
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 7.891 | 144.285 | 4.689 | 11343 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.715278, -79.461389 |
| Observation Date | 2024-11-19 |
| Elevation (ft) | 791.267 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-11-19 | 1.473622 | 4.791732 | 1.287402 | Dry | 1 | 3 | 3 |
| 2024-10-20 | 2.833858 | 4.296851 | 4.594488 | Wet | 3 | 2 | 6 |
| 2024-09-20 | 2.519685 | 4.805118 | 2.433071 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Normal Conditions - 10 |

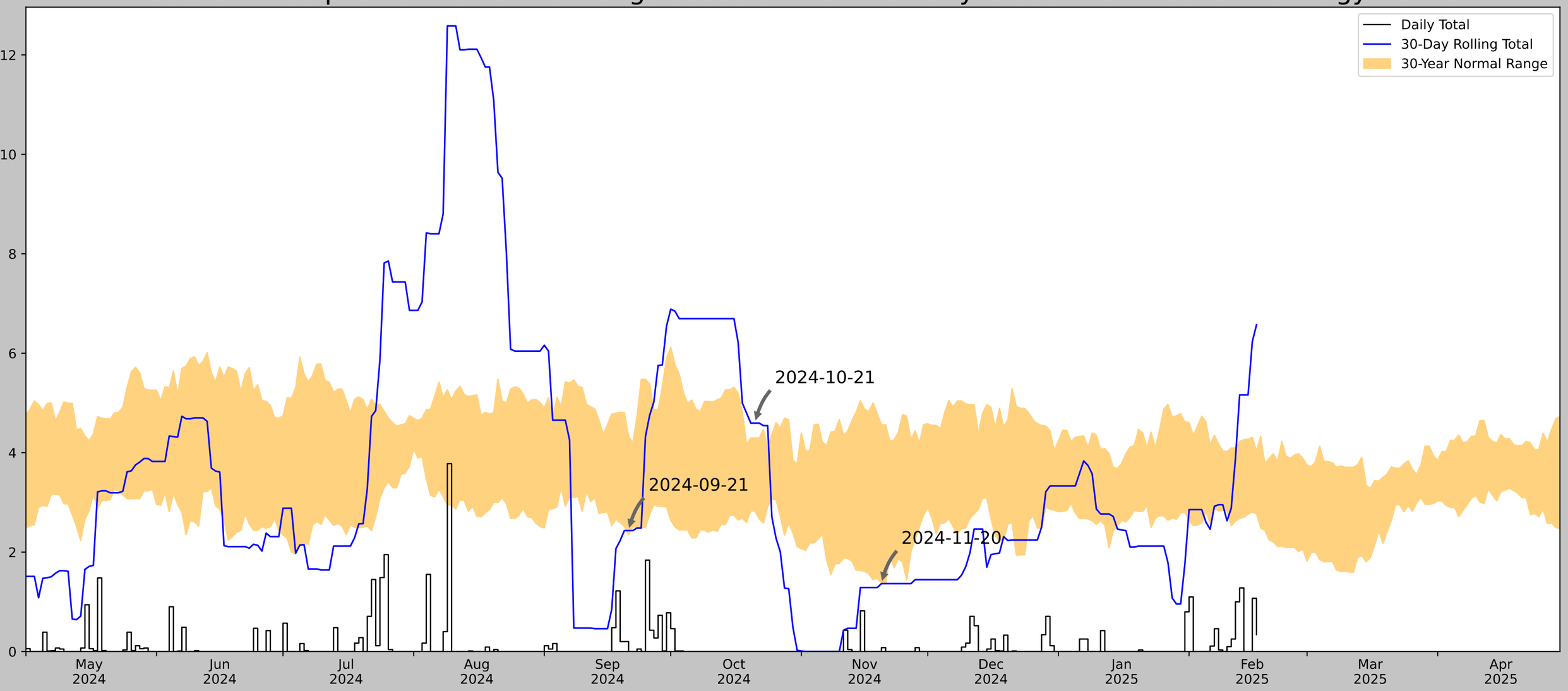
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 7.891 | 144.285 | 4.689 | 11343 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.715278, -79.461389 |
| Observation Date | 2024-11-20 |
| Elevation (ft) | 791.267 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-11-20 | 1.378347 | 4.561417 | 1.366142 | Dry | 1 | 3 | 3 |
| 2024-10-21 | 2.820866 | 4.296851 | 4.594488 | Wet | 3 | 2 | 6 |
| 2024-09-21 | 2.35 | 4.334646 | 2.433071 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 11 |

US Army Corps of Engineers

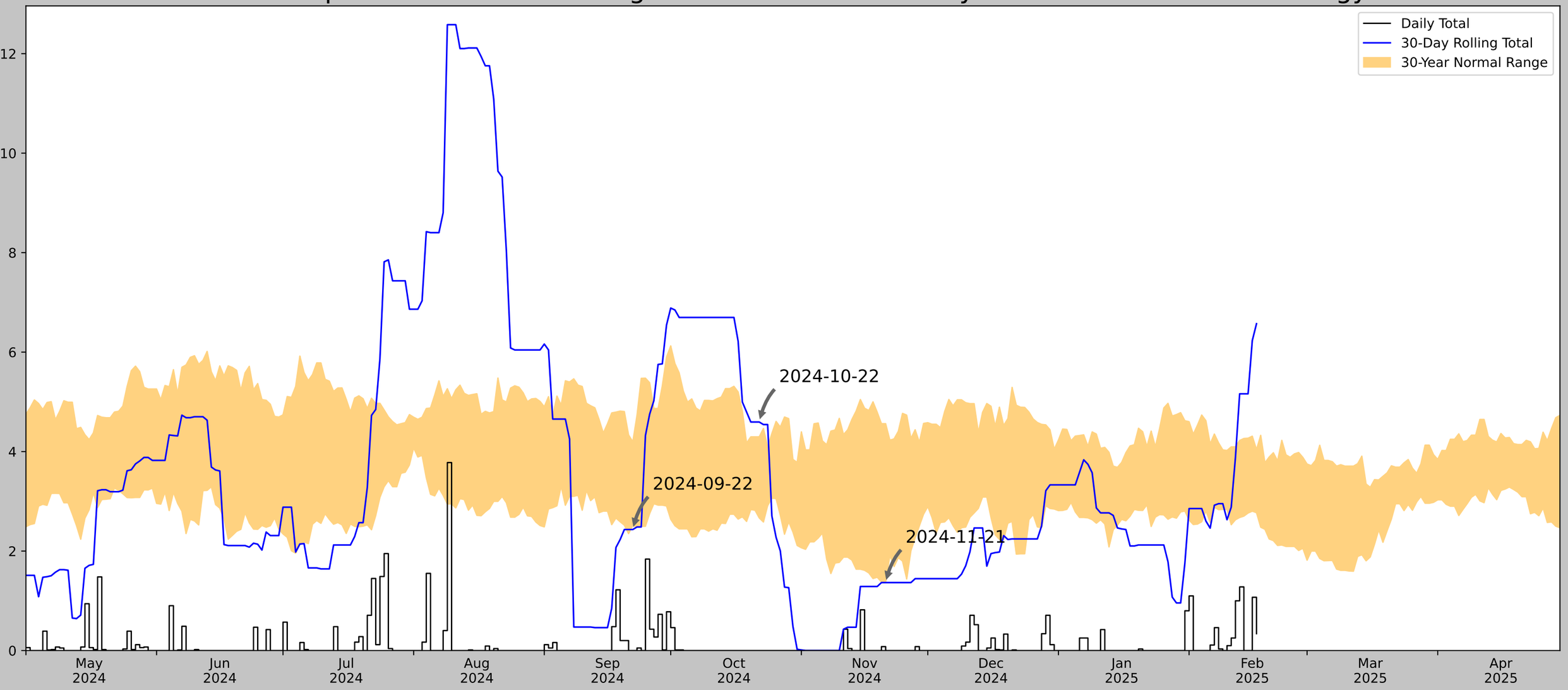
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 7.891 | 144.285 | 4.689 | 11343 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.715278, -79.461389 |
| Observation Date | 2024-11-21 |
| Elevation (ft) | 791.267 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-11-21 | 1.368898 | 4.561417 | 1.366142 | Dry | 1 | 3 | 3 |
| 2024-10-22 | 2.666142 | 4.296851 | 4.594488 | Wet | 3 | 2 | 6 |
| 2024-09-22 | 2.514961 | 4.197244 | 2.433071 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Normal Conditions - 10 |

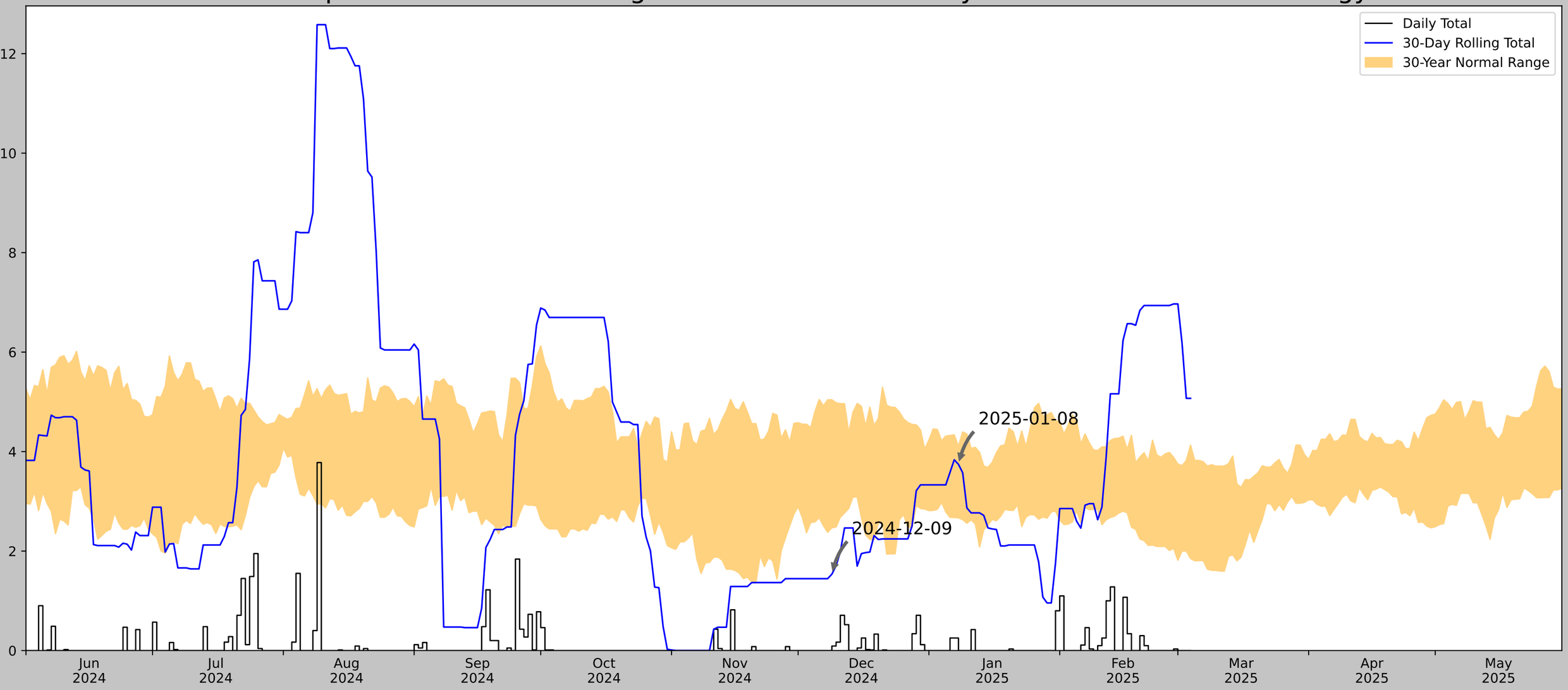
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 7.891 | 144.285 | 4.689 | 11343 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.711111, -79.465 |
| Observation Date | 2025-01-08 |
| Elevation (ft) | 811.822 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2025-01-08 | 2.667323 | 4.105118 | 3.744095 | Normal | 2 | 3 | 6 |
| 2024-12-09 | 2.468504 | 5.041339 | 1.535433 | Dry | 1 | 2 | 2 |
| 2024-11-09 | 1.758661 | 4.434252 | 0.0 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Drier than Normal - 9 |

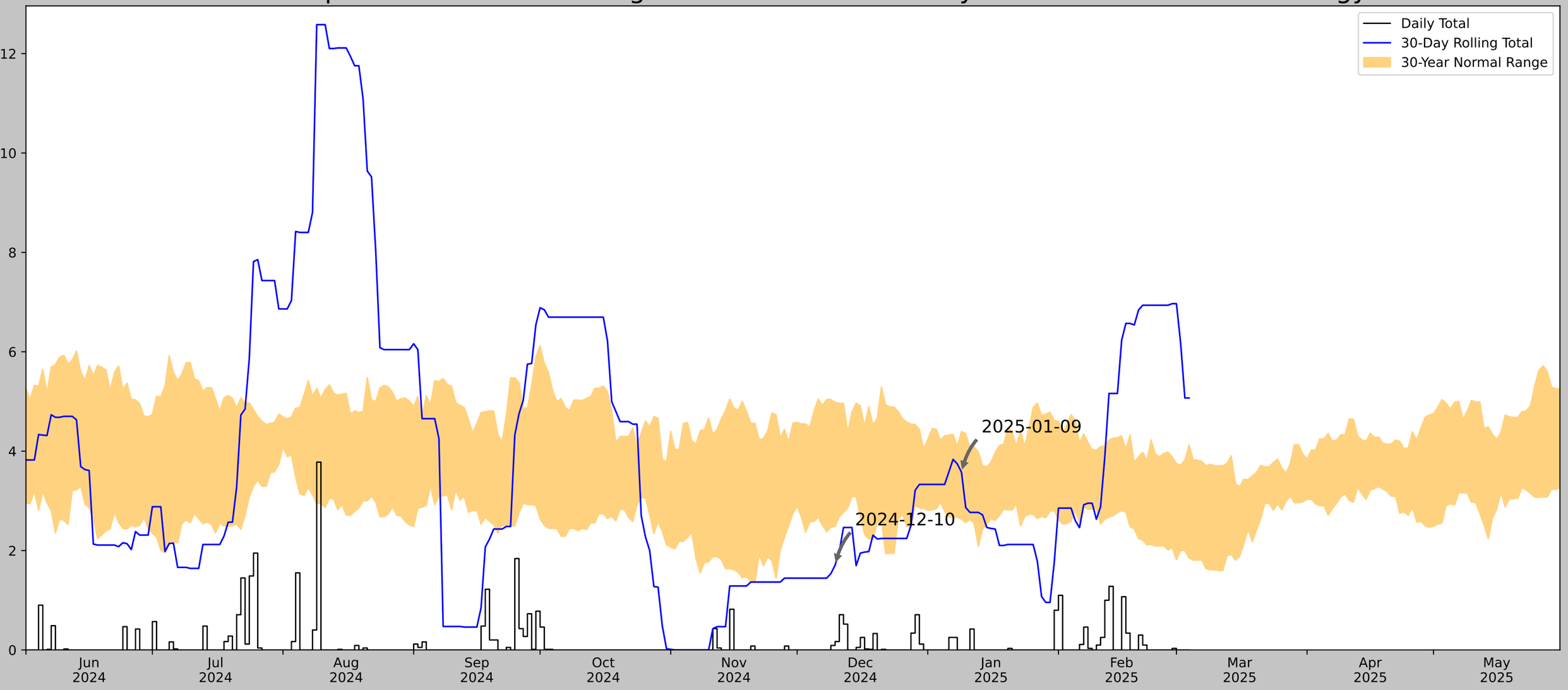
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.232 | 164.84 | 5.061 | 11343 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.711111, -79.465 |
| Observation Date | 2025-01-09 |
| Elevation (ft) | 811.822 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2025-01-09 | 2.631496 | 4.396063 | 3.574803 | Normal | 2 | 3 | 6 |
| 2024-12-10 | 2.482284 | 4.982284 | 1.704724 | Dry | 1 | 2 | 2 |
| 2024-11-10 | 1.772835 | 4.668504 | 0.0 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Drier than Normal - 9 |

US Army Corps of Engineers

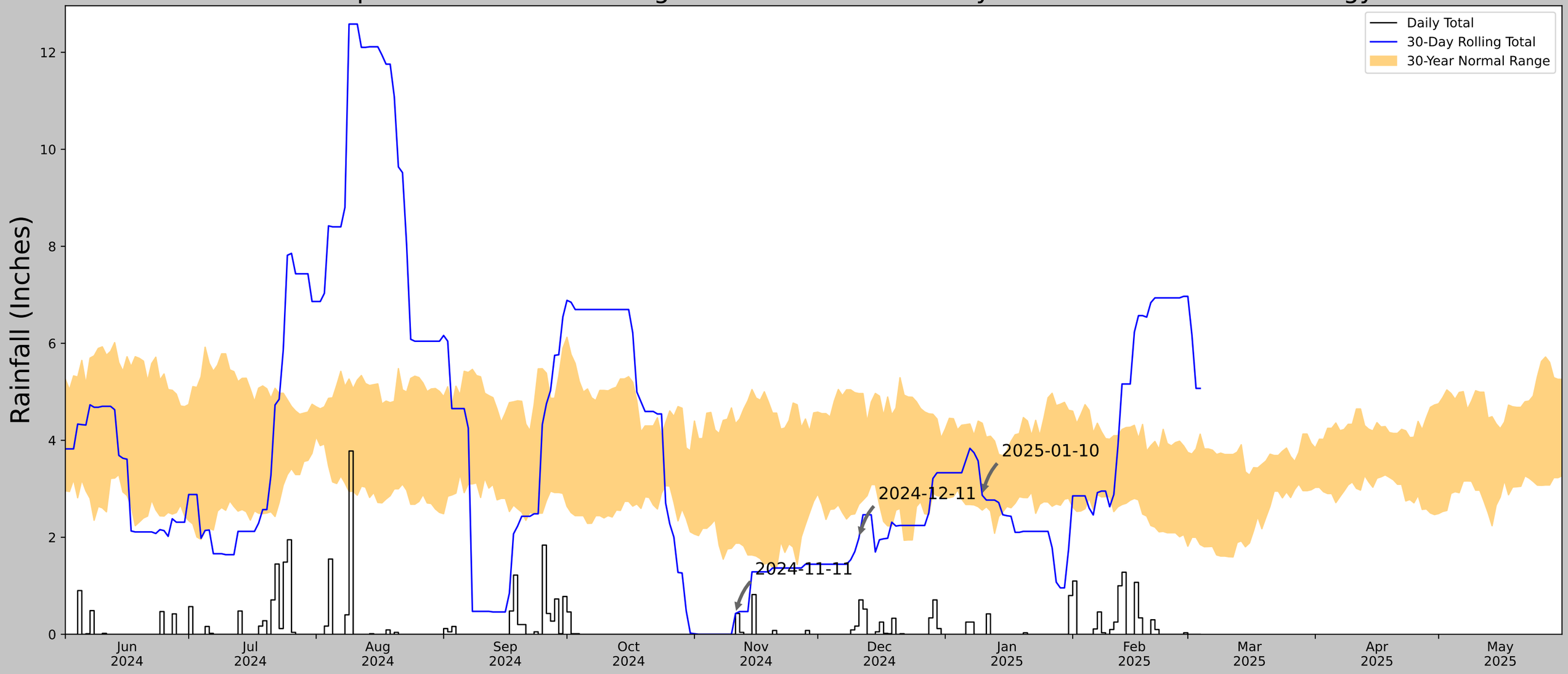
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.232 | 164.84 | 5.061 | 11343 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.711111, -79.465 |
| Observation Date | 2025-01-10 |
| Elevation (ft) | 811.822 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2025-01-10 | 2.560236 | 4.352756 | 2.866142 | Normal | 2 | 3 | 6 |
| 2024-12-11 | 2.679134 | 4.964567 | 1.984252 | Dry | 1 | 2 | 2 |
| 2024-11-11 | 1.877165 | 4.341732 | 0.429134 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Drier than Normal - 9 |

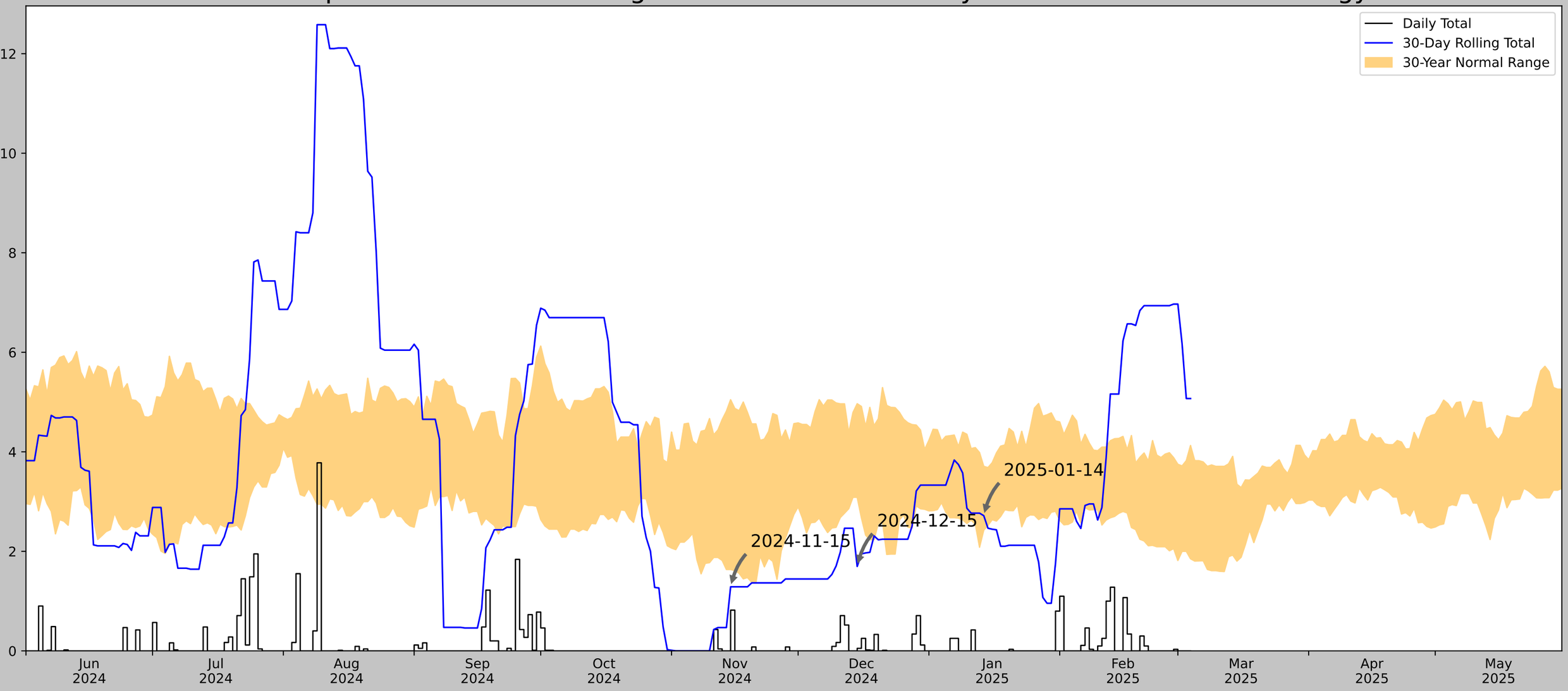
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.232 | 164.84 | 5.061 | 11343 | 89 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |




| | |
|---|---|
| Coordinates | 36.711111, -79.465 |
| Observation Date | 2025-01-14 |
| Elevation (ft) | 811.822 |
| Drought Index (PDSI) | Mild drought |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2025-01-14 | 2.427953 | 3.707874 | 2.716536 | Normal | 2 | 3 | 6 |
| 2024-12-15 | 3.085827 | 4.966929 | 1.69685 | Dry | 1 | 2 | 2 |
| 2024-11-15 | 1.635039 | 5.047638 | 1.287402 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Drier than Normal - 9 |

US Army Corps of Engineers

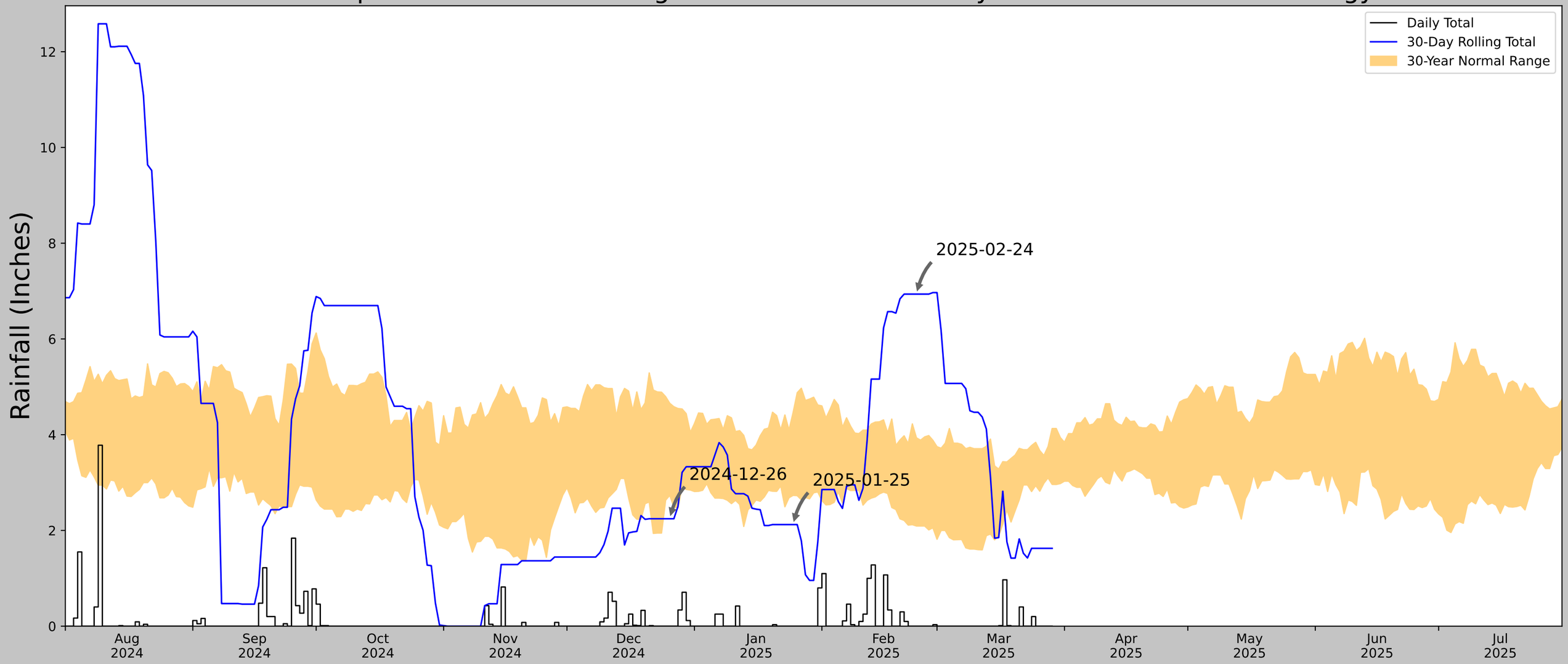
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 8.232 | 164.84 | 5.061 | 11343 | 88 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.653333, -79.521389 |
| Observation Date | 2025-02-24 |
| Elevation (ft) | 681.224 |
| Drought Index (PDSI) | Incipient wetness |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2025-02-24 | 2.09252 | 3.933858 | 6.937008 | Wet | 3 | 3 | 9 |
| 2025-01-25 | 2.732677 | 4.46378 | 2.122047 | Dry | 1 | 2 | 2 |
| 2024-12-26 | 2.733858 | 4.656299 | 2.244095 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Normal Conditions - 12 |

US Army Corps of Engineers

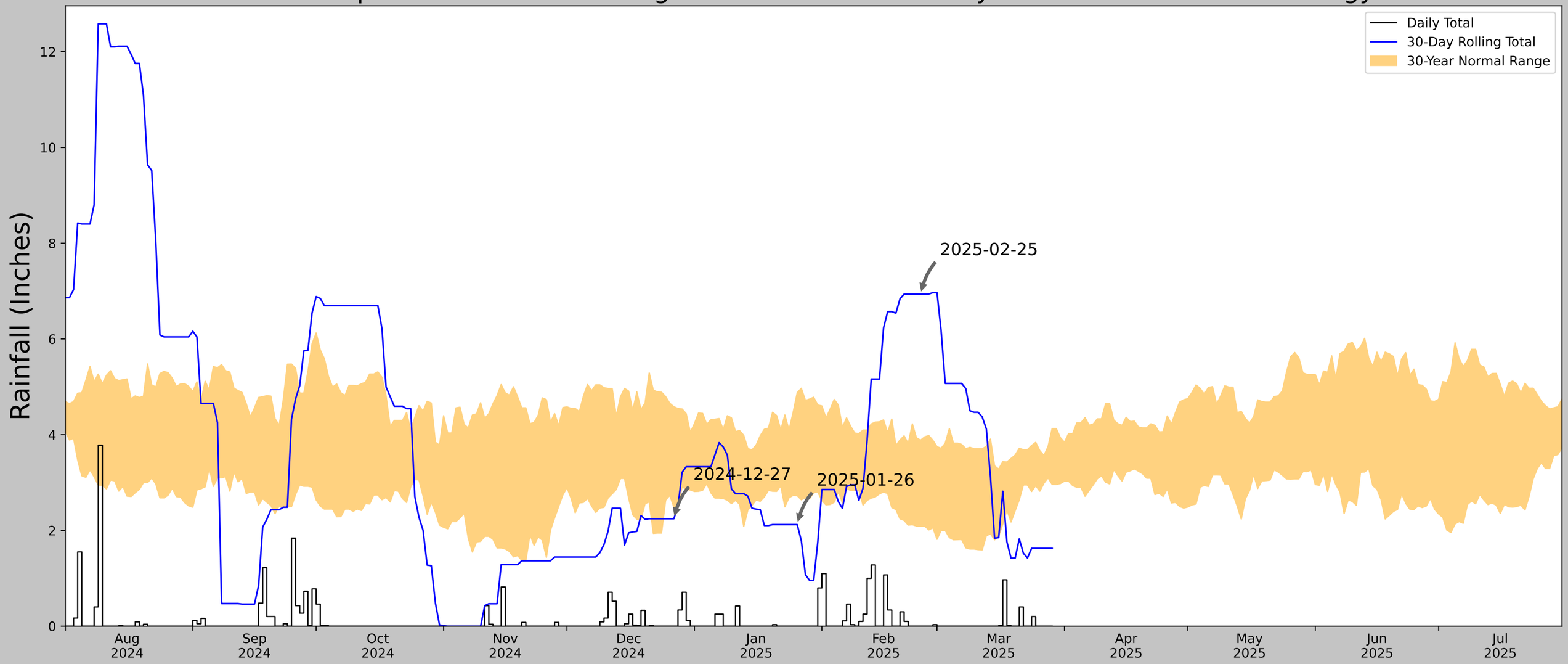
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by:
U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

ERDC
ENGINEER RESEARCH & DEVELOPMENT CENTER

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 13.171 | 34.242 | 6.378 | 11343 | 86 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| JAVA 0.9 NNW | 36.8497, -79.2316 | 612.861 | 10.067 | 34.121 | 4.874 | 0 | 1 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 2 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 3 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.653333, -79.521389 |
| Observation Date | 2025-02-25 |
| Elevation (ft) | 681.224 |
| Drought Index (PDSI) | Incipient wetness |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2025-02-25 | 2.09252 | 3.885433 | 6.937008 | Wet | 3 | 3 | 9 |
| 2025-01-26 | 2.726772 | 4.877166 | 2.122047 | Dry | 1 | 2 | 2 |
| 2024-12-27 | 2.485039 | 4.584646 | 2.244095 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Normal Conditions - 12 |

US Army Corps of Engineers

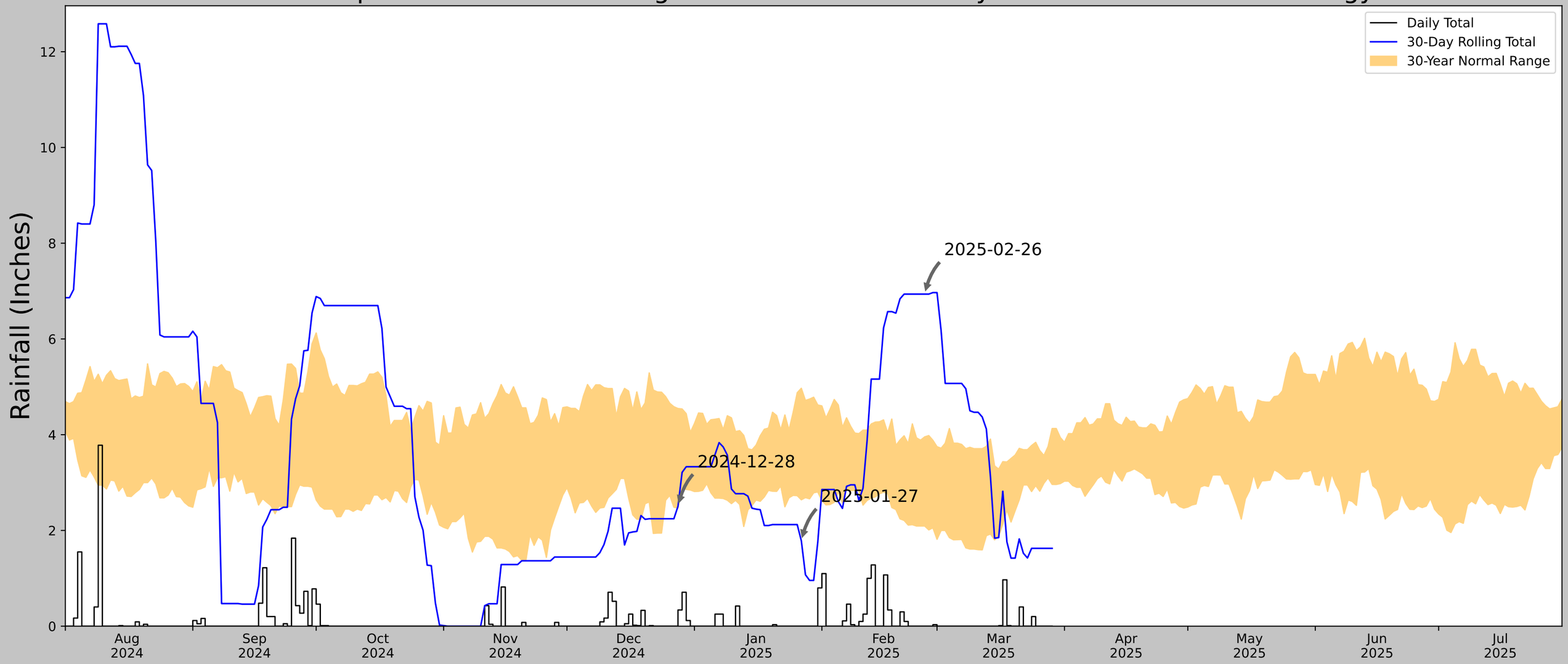
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 13.171 | 34.242 | 6.378 | 11343 | 86 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| JAVA 0.9 NNW | 36.8497, -79.2316 | 612.861 | 10.067 | 34.121 | 4.874 | 0 | 1 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 2 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 3 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.653333, -79.521389 |
| Observation Date | 2025-02-26 |
| Elevation (ft) | 681.224 |
| Drought Index (PDSI) | Incipient wetness |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2025-02-26 | 2.09252 | 3.954331 | 6.937008 | Wet | 3 | 3 | 9 |
| 2025-01-27 | 2.640158 | 4.970473 | 1.783465 | Dry | 1 | 2 | 2 |
| 2024-12-28 | 2.469685 | 4.547244 | 2.503937 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 13 |

US Army Corps of Engineers

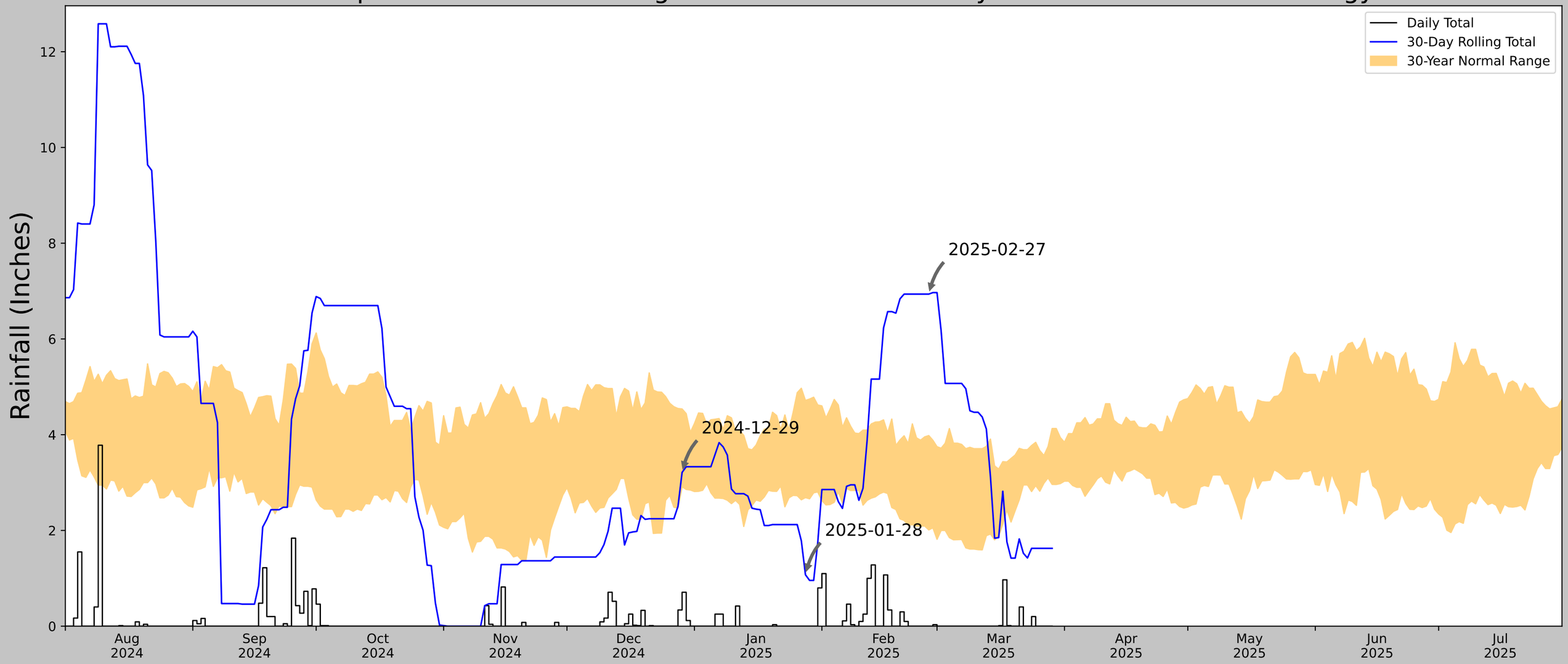
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by:
U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

ERDC

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 13.171 | 34.242 | 6.378 | 11343 | 86 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| JAVA 0.9 NNW | 36.8497, -79.2316 | 612.861 | 10.067 | 34.121 | 4.874 | 0 | 1 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 2 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 3 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.653333, -79.521389 |
| Observation Date | 2025-02-27 |
| Elevation (ft) | 681.224 |
| Drought Index (PDSI) | Incipient wetness |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2025-02-27 | 2.011417 | 3.98189 | 6.937008 | Wet | 3 | 3 | 9 |
| 2025-01-28 | 2.686614 | 4.715748 | 1.074803 | Dry | 1 | 2 | 2 |
| 2024-12-29 | 2.912992 | 4.537402 | 3.212599 | Normal | 2 | 1 | 2 |
| Result | | | | | | | Normal Conditions - 13 |

US Army Corps of Engineers

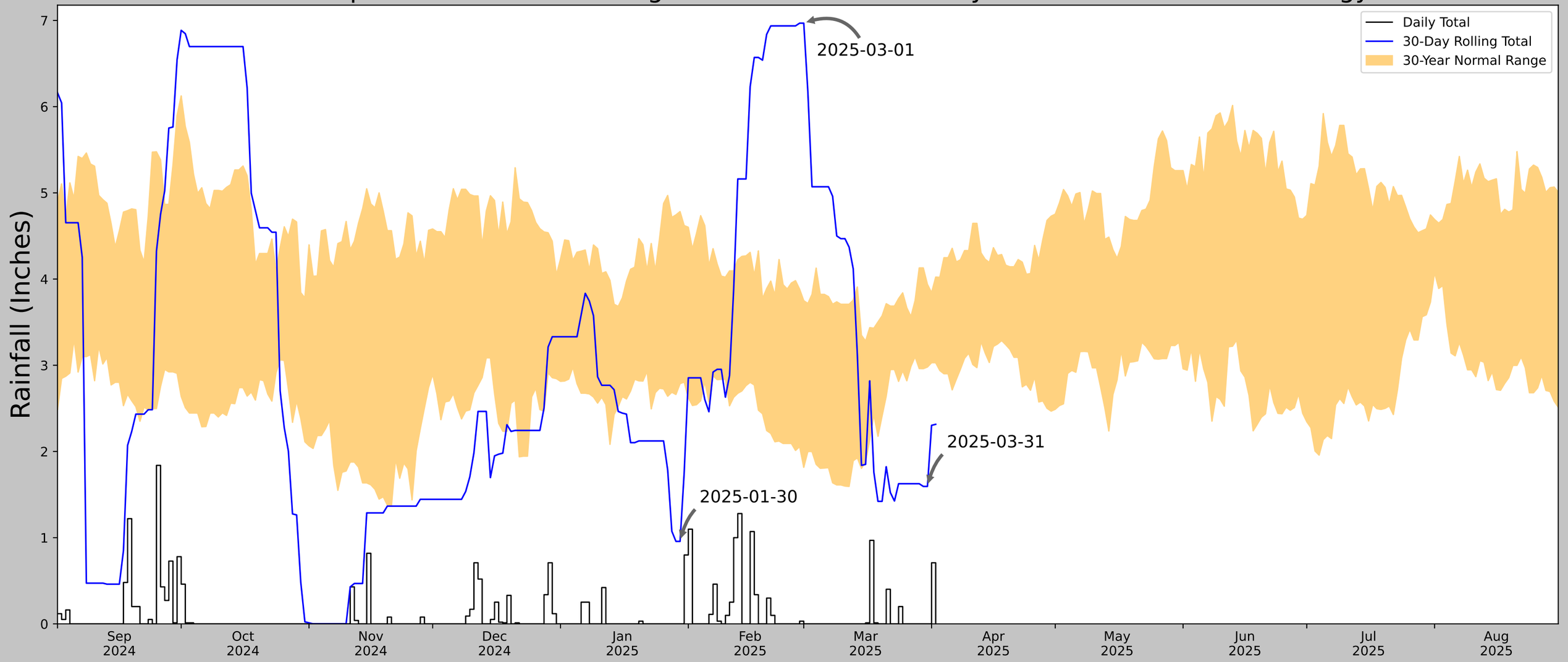
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 13.171 | 34.242 | 6.378 | 11343 | 86 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 1 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| JAVA 0.9 NNW | 36.8497, -79.2316 | 612.861 | 10.067 | 34.121 | 4.874 | 0 | 1 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 2 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 3 | 0 |

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 36.787686, -79.384505 |
| Observation Date | 2025-03-31 |
| Elevation (ft) | 651.651 |
| Drought Index (PDSI) | Incipient wetness (2025-02) |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | $30^{th}$ %ile (in) | $70^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2025-03-31 | 2.979134 | 3.938977 | 1.594488 | Dry | 1 | 3 | 3 |
| 2025-03-01 | 1.815354 | 3.749606 | 6.968504 | Wet | 3 | 2 | 6 |
| 2025-01-30 | 2.786614 | 4.783071 | 0.956693 | Dry | 1 | 1 | 1 |
| Result | | | | | | | Normal Conditions - 10 |

US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| CHATHAM | 36.8219, -79.4103 | 646.982 | 2.761 | 4.669 | 1.255 | 11343 | 82 |
| CHATHAM 4.9 ENE | 36.8576, -79.3237 | 692.913 | 5.387 | 45.931 | 2.672 | 0 | 2 |
| CHATHAM 5.9 SW | 36.7512, -79.4635 | 812.992 | 5.703 | 166.01 | 3.513 | 4 | 0 |
| JAVA 0.9 NNW | 36.8497, -79.2316 | 612.861 | 10.067 | 34.121 | 4.874 | 0 | 1 |
| RINGGOLD 2.6 NNW | 36.643, -79.312 | 676.837 | 13.506 | 29.855 | 6.481 | 1 | 0 |
| GRETNA 0.5 WNW | 36.9545, -79.3724 | 910.105 | 9.398 | 263.123 | 6.702 | 0 | 3 |
| PITTSVILLE 4.5 NNW | 37.0508, -79.4822 | 683.071 | 16.306 | 36.089 | 7.926 | 1 | 0 |
| DANVILLE RGNL AP | 36.5728, -79.335 | 551.837 | 17.709 | 95.145 | 9.654 | 1 | 2 |
| ALTAVISTA | 37.1125, -79.2753 | 534.121 | 21.417 | 112.861 | 12.055 | 1 | 0 |
| DANVILLE 2 SE | 36.5628, -79.3633 | 392.06 | 18.09 | 254.922 | 12.752 | 2 | 0 |

# EXHIBIT 11 - DEQ STREAM FORMS

| DEQ STREAM FORMS | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Field Stream ID** | **Map Stream ID** | **Cowardin** | **DEQ ID** | **Latitude** | **Longitude** | **Nearest Milepost** | **Sheet #** |
| E1-L003-VA | L003-1 | Ephemeral | DEQ-A | 36.5520 | -79.6233 | 1387.8 | 2 |
| | | | DEQ-B | 36.5522 | -79.6231 | 1387.8 | 2 |
| | | | DEQ-C | 36.5526 | -79.6226 | 1387.9 | 2 |
| E1-L008-VA | L008-1 | Ephemeral | DEQ-A | 36.7189 | -79.4570 | 1402.7 | 14 |
| | | | DEQ-B | 36.7195 | -79.4573 | 1402.7 | 14 |
| | | | DEQ-C | 36.7201 | -79.4572 | 1402.8 | 14 |
| E1-L013-VA | L013-1 | Perennial | DEQ-A | 36.7349 | -79.4410 | 1404.1 | 15 |
| | | | DEQ-B | 36.7351 | -79.4414 | 1404.1 | 15 |
| E1-L018-VA | L018-1 | Ephemeral | DEQ-A | 36.6326 | -79.5440 | 1395 | 8 |
| | | | DEQ-B | 36.6328 | -79.5441 | 1395 | 8 |
| | L018-2 | Intermittent | DEQ-C | 36.6331 | -79.5443 | 1395 | 8 |
| E1-L020-VA | L020-1 | Ephemeral | DEQ-A | 36.6338 | -79.5426 | 1395.1 | 8 |
| | | | DEQ-B | 36.6338 | -79.5428 | 1395.1 | 8 |
| E1-L024-VA | L024-1 | Intermittent | DEQ-C | 36.6377 | -79.5373 | 1395.5 | 8 |
| | L024-2 | Ephemeral | DEQ-A | 36.6382 | -79.5369 | 1395.5 | 8 |
| | | | DEQ-B | 36.6380 | -79.5371 | 1395.5 | 8 |
| E1-L025-VA | L025-1 | Intermittent | DEQ-A | 36.6375 | -79.5375 | 1395.5 | 8 |
| | L025-2 | Ephemeral | DEQ-B | 36.6375 | -79.5375 | 1395.5 | 8 |
| E1-L028-VA | L028-1 | Ephemeral | DEQ-A | 36.5892 | -79.5855 | 1391.2 | 5 |
| | | | DEQ-B | 36.5891 | -79.5856 | 1391.2 | 5 |
| | | | DEQ-C | 36.5891 | -79.5857 | 1391.2 | 5 |
| E1-L029-VA | L029-1 | Intermittent | DEQ-A | 36.5904 | -79.5835 | 1391.3 | 5 |
| | | Intermittent | DEQ-B | 36.5905 | -79.5837 | 1391.3 | 5 |
| | L029-2 | Perennial | DEQ-C | 36.5905 | -79.5840 | 1391.3 | 5 |
| E1-L030-VA | L030-1 | Ephemeral | DEQ-A | 36.5938 | -79.5798 | 1391.6 | 5 |
| | | | DEQ-B | 36.5941 | -79.5798 | 1391.6 | 5 |
| E1-L034-VA | L034-1 | Perennial | DEQ-A | 36.6068 | -79.5683 | 1392.7 | 6 |
| | | | DEQ-B | 36.6067 | -79.5683 | 1392.7 | 6 |
| E1-L035-VA | L035-1 | Ephemeral | DEQ-A | 36.6083 | -79.5673 | 1392.9 | 6 |
| | | | DEQ-B | 36.6082 | -79.5673 | 1392.8 | 6 |
| | | | DEQ-C | 36.6081 | -79.5674 | 1392.8 | 6 |
| E1-L038-VA | L038-1 | Ephemeral | DEQ-A | 36.5993 | -79.5745 | 1392.1 | 6 |
| | | | DEQ-B | 36.5993 | -79.5746 | 1392.1 | 6 |
| E1-L039-VA | L039-1 | Ephemeral | DEQ-A | 36.6018 | -79.5665 | 1392.5 | 6 |
| | | | DEQ-B | 36.6019 | -79.5667 | 1392.5 | 6 |
| E1-L041-VA | L041-1 | Intermittent | DEQ-A | 36.5963 | -79.5774 | 1391.8 | 5 |
| | | | DEQ-B | 36.5961 | -79.5775 | 1391.8 | 5 |
| E1-L043-VA | L043-1 | Ephemeral | DEQ-A | 36.6175 | -79.5599 | M-0402 1393.60 | 7 |
| E1-L044-VA | L044-1 | Intermittent | DEQ-A | 36.6236 | -79.5531 | 1394.2 | 7 |
| | | | DEQ-B | 36.6242 | -79.5530 | 1394.2 | 7 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| E1-L045-VA | L045-1 | Intermittent | DEQ-A | 36.6282 | -79.5484 | 1394.6 | 8 |
| | | | DEQ-B | 36.6285 | -79.5486 | 1394.6 | 8 |
| E1-L050-VA | L050-2 | Ephemeral | DEQ-A | 36.6411 | -79.5337 | 1395.8 | 9 |
| | L050-3 | Intermittent | DEQ-B | 36.6414 | -79.5337 | 1395.8 | 9 |
| | | | DEQ-C | 36.6415 | -79.5337 | 1395.8 | 9 |
| E1-L051-VA | L051-1 | Intermittent | DEQ-A | 36.6418 | -79.5339 | 1395.8 | 9 |
| | | | DEQ-B | 36.6419 | -79.5339 | 1395.8 | 9 |
| E1-L052-VA | L052-1 | Perennial | DEQ-A | 36.6426 | -79.5320 | 1395.9 | 9 |
| | | Perennial | DEQ-B | 36.6423 | -79.5322 | 1395.9 | 9 |
| E1-L053-VA | L053-1 | Intermittent | DEQ-A | 36.6427 | -79.5320 | 1395.9 | 9 |
| | | | DEQ-B | 36.6428 | -79.5319 | 1395.9 | 9 |
| E1-L054-VA | L054-1 | Intermittent | DEQ-A | 36.6433 | -79.5315 | 1396 | 9 |
| | | | DEQ-B | 36.6431 | -79.5316 | 1396 | 9 |
| | | | DEQ-C | 36.6429 | -79.5319 | 1396 | 9 |
| E2-L055-VA | L055-1 | Ephemeral | DEQ-A | 36.7172 | -79.4597 | 1402.5 | 14 |
| | | | DEQ-B | 36.7174 | -79.4597 | 1402.5 | 14 |
| | | | DEQ-C | 36.7175 | -79.4599 | 1402.5 | 14 |
| E1-L056-VA | L056-1 | Ephemeral | DEQ-A | 36.6428 | -79.5320 | 1395.9 | 9 |
| | | | DEQ-B | 36.6428 | -79.5320 | 1395.9 | 9 |
| E2-L063-VA | L063-1 | Ephemeral | DEQ-A | 36.6936 | -79.4830 | 1400.4 | 12 |
| | | | DEQ-B | 36.6936 | -79.4831 | 1400.4 | 12 |
| E2-L064-VA | L064-1 | Ephemeral | DEQ-A | 36.6934 | -79.4831 | 1400.4 | 12 |
| | | | DEQ-B | 36.6935 | -79.4832 | 1400.4 | 12 |
| E2-L065-VA | L065-1 | Ephemeral | DEQ-A | 36.6935 | -79.4829 | 1400.4 | 12 |
| | | | DEQ-B | 36.6935 | -79.4831 | 1400.4 | 12 |
| E2-L068-VA | L068-1 | Ephemeral | DEQ-A | 36.5546 | -79.6208 | 1388 | 3 |
| | | | DEQ-B | 36.5547 | -79.6209 | 1388 | 3 |
| E2-L071-VA | L071-1 | Ephemeral | DEQ-A | 36.7669 | -79.4082 | 1407 | 17 |
| | | | DEQ-B | 36.7670 | -79.4080 | 1407 | 17 |
| E2-L073-VA | L073-1 | Ephemeral | DEQ-A | 36.7685 | -79.4085 | 1407.1 | 17 |
| | | | DEQ-B | 36.7687 | -79.4086 | 1407.1 | 17 |
| E2-L074-VA | L074-1 | Ephemeral | DEQ-A | 36.7697 | -79.4075 | 1407.2 | 18 |
| | | | DEQ-B | 36.7696 | -79.4078 | 1407.2 | 18 |
| E2-L076-VA | L076-1 | Intermittent | DEQ-A | 36.7605 | -79.4170 | 1406.4 | 17 |
| | | | DEQ-B | 36.7605 | -79.4170 | 1406.4 | 17 |
| | | | DEQ-C | 36.7606 | -79.4169 | 1406.4 | 17 |
| E1-L077-VA | L077-1 | Ephemeral | DEQ-A | 36.7754 | -79.3985 | M-0307 1407.70 | 18 |
| | | | DEQ-B | 36.7753 | -79.3985 | M-0307 1407.70 | 18 |
| | | | DEQ-C | 36.7753 | -79.3986 | M-0307 1407.70 | 18 |
| E2-L078-VA | L078-1 | Ephemeral | DEQ-A | 36.7573 | -79.4199 | 1406.1 | 17 |
| | | | DEQ-B | 36.7571 | -79.4198 | 1406.1 | 17 |
| E1-L079-VA | L079-1 | Ephemeral | DEQ-A | 36.7574 | -79.4200 | 1406.1 | 17 |
| | | | DEQ-B | 36.7576 | -79.4202 | 1406.1 | 17 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| E1-L081-VA | L081-1 | Perennial | DEQ-A | 36.7534 | -79.4232 | 1405.8 | 16 |
| | | | DEQ-B | 36.7534 | -79.4232 | 1405.8 | 16 |
| E1-L083-VA | L083-1 | Ephemeral | DEQ-A | 36.7528 | -79.4246 | 1405.7 | 16 |
| | | | DEQ-B | 36.7531 | -79.4246 | 1405.7 | 16 |
| | | | DEQ-C | 36.7532 | -79.4245 | 1405.7 | 16 |
| E1-L084-VA | L084-1 | Perennial | DEQ-A | 36.8282 | -79.3430 | 1412.7 | 23 |
| | | | DEQ-B | 36.8282 | -79.3433 | 1412.7 | 23 |
| E1-L085-VA | L085-2 | Intermittent | DEQ-A | 36.8290 | -79.3421 | 1412.8 | 23 |
| | | | DEQ-B | 36.8292 | -79.3424 | 1412.8 | 23 |
| E1-L086-VA | L086-1 | Perennial | DEQ-A | 36.8278 | -79.3411 | 1412.8 | 23 |
| | | | DEQ-B | 36.8281 | -79.3415 | 1412.8 | 23 |
| | | | DEQ-C | 36.8281 | -79.3420 | 1412.8 | 23 |
| E1-L087-VA | L087-1 | Intermittent | DEQ-A | 36.8281 | -79.3413 | 1412.8 | 23 |
| | | | DEQ-B | 36.8281 | -79.3414 | 1412.8 | 23 |
| E1-L088-VA | L088-1 | Intermittent | DEQ-A | 36.7886 | -79.3877 | M-0437 1409.60 | 20 |
| | | | DEQ-B | 36.7887 | -79.3870 | M-0437 1409.60 | 20 |
| E3-L089-VA | L089-1 | Ephemeral | DEQ-A | 36.6681 | -79.5081 | 1398.2 | 10 |
| | | | DEQ-B | 36.6680 | -79.5084 | 1398.2 | 10 |
| E3-L091-VA | L091-1 | Intermittent | DEQ-A | 36.6684 | -79.5080 | 1398.2 | 10 |
| | | | DEQ-B | 36.6684 | -79.5079 | 1398.2 | 10 |
| E1-L092-VA | L092-1 | Intermittent | DEQ-A | 36.7890 | -79.3861 | M-0437 1409.60 | 20 |
| | | | DEQ-B | 36.7887 | -79.3860 | M-0437 1409.60 | 20 |
| E1-L093-VA | L093-1 | Intermittent | DEQ-A | 36.7888 | -79.3861 | M-0437 1409.60 | 20 |
| | | | DEQ-B | 36.7888 | -79.3861 | M-0437 1409.60 | 20 |
| E1-L094-VA | L094-1 | Intermittent | DEQ-A | 36.7893 | -79.3860 | M-0437 1409.60 | 20 |
| | | | DEQ-B | 36.7892 | -79.3862 | M-0437 1409.60 | 20 |
| E3-L097-VA | L097-1 | Ephemeral | DEQ-A | 36.6739 | -79.5025 | 1398.7 | 11 |
| E2-L102-VA | L102-1 | Ephemeral | DEQ-A | 36.7777 | -79.3871 | M-0307 1408.70 | 19 |
| | | | DEQ-B | 36.7778 | -79.3869 | M-0307 1408.70 | 19 |
| E1-L105-VA | L105-1 | Ephemeral | DEQ-A | 36.7934 | -79.3826 | 1409.4 | 20 |
| | | | DEQ-B | 36.7933 | -79.3823 | 1409.4 | 20 |
| E1-L112-VA | L112-1 | Ephemeral | DEQ-A | 36.8086 | -79.3640 | 1410.9 | 21 |
| | | | DEQ-B | 36.8084 | -79.3639 | 1410.9 | 21 |
| E1-L117-VA | L117-1 | Ephemeral | DEQ-A | 36.8157 | -79.3562 | 1411.5 | 22 |
| E1-L118-VA | L118-1 | Ephemeral | DEQ-A | 36.8162 | -79.3539 | M-0402 1411.70 | 22 |
| | | | DEQ-B | 36.8161 | -79.3536 | M-0402 1411.70 | 22 |
| E1-L120-VA | L120-1 | Intermittent | DEQ-A | 36.8211 | -79.3493 | M-0402 1412.10 | 22 |
| | | | DEQ-B | 36.8211 | -79.3493 | M-0402 1412.10 | 22 |
| E1-L122-VA | L122-1 | Intermittent | DEQ-A | 36.8242 | -79.3472 | M-0312 1412.40 | 22, 23 |
| | | | DEQ-B | 36.8240 | -79.3472 | M-0312 1412.40 | 22, 23 |
| E2-L124-VA | L124-1 | Intermittent | DEQ-A | 36.5566 | -79.6179 | M-0402 1388.20 | 3 |
| | | | DEQ-B | 36.5565 | -79.6179 | M-0402 1388.20 | 3 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| E1-L125-VA | L125-1 | Perennial | DEQ-A | 36.8246 | -79.3465 | M-0312 1412.40 | 23 |
| | | | DEQ-B | 36.8245 | -79.3466 | M-0312 1412.40 | 23 |
| | | | DEQ-C | 36.8244 | -79.3467 | M-0312 1412.40 | 23 |
| E2-L128-VA | L128-1 | Ephemeral | DEQ-A | 36.5858 | -79.5886 | 1390.9 | 5 |
| | | | DEQ-B | 36.5860 | -79.5889 | 1390.9 | 5 |
| E2-L129-VA | L129-1 | Intermittent | DEQ-A | 36.5856 | -79.5882 | 1390.9 | 5 |
| | | | DEQ-B | 36.5856 | -79.5881 | 1390.9 | 5 |
| E2-L130-VA | L130-1 | Intermittent | DEQ-A | 36.5565 | -79.6181 | M-0402 1388.20 | 3 |
| | | | DEQ-B | 36.5563 | -79.6180 | M-0402 1388.20 | 3 |
| E2-L133-VA | L133-1 | Intermittent | DEQ-A | 36.5573 | -79.6178 | M-0402 1388.30 | 3 |
| | | | DEQ-B | 36.5578 | -79.6177 | M-0402 1388.30 | 3 |
| E3-L134-VA | L134-1 | Intermittent | DEQ-A | 36.8361 | -79.3337 | 1413.29 | 23 |
| | | | DEQ-B | 36.8363 | -79.3336 | 1413.29 | 23 |
| E2-L136-VA | L136-1 | Ephemeral | DEQ-A | 36.5578 | -79.6178 | M-0402 1388.30 | 3 |
| | | | DEQ-B | 36.5577 | -79.6177 | M-0402 1388.30 | 3 |
| E1-L137-VA | L137-1 | Intermittent | DEQ-A | 36.5574 | -79.6165 | M-0402 1388.30 | 3 |
| | | | DEQ-B | 36.5572 | -79.6165 | M-0402 1388.30 | 3 |
| E3-L138-VA | L138-1 | Ephemeral | DEQ-A | 36.8354 | -79.3343 | 1413.29 | 23 |
| | | | DEQ-B | 36.8358 | -79.3340 | 1413.29 | 23 |
| E1-L139-VA | L139-1 | Perennial | DEQ-A | 36.5659 | -79.6080 | 1389.1 | 3 |
| | | | DEQ-B | 36.5658 | -79.6075 | 1389.1 | 3 |
| E1-L141-VA | L141-1 | Ephemeral | DEQ-A | 36.5656 | -79.6080 | 1389.1 | 3 |
| | | | DEQ-B | 36.5656 | -79.6079 | 1389.1 | 3 |
| | | | DEQ-C | 36.5657 | -79.6077 | 1389.1 | 3 |
| E1-L145-VA | L145-1 | Ephemeral | DEQ-A | 36.7577 | -79.4203 | 1406.1 | 17 |
| E2-L148-VA | L148-1 | Ephemeral | DEQ-A | 36.5747 | -79.5992 | 1389.9 | 4 |
| | | | DEQ-B | 36.5741 | -79.5993 | 1389.8 | 4 |
| E2-L149-VA | L149-1 | Ephemeral | DEQ-A | 36.5737 | -79.6002 | 1389.8 | 4 |
| | | | DEQ-B | 36.5737 | -79.5999 | 1389.8 | 4 |
| | | | DEQ-C | 36.5737 | -79.5997 | 1389.8 | 4 |
| E2-L150-VA | L150-1 | Intermittent | DEQ-A | 36.5766 | -79.5973 | 1390.1 | 4 |
| | | | DEQ-B | 36.5764 | -79.5972 | 1390 | 4 |
| E2-L151-VA | L151-1 | Ephemeral | DEQ-A | 36.5775 | -79.5964 | 1390.1 | 4 |
| | | | DEQ-B | 36.5774 | -79.5965 | 1390.1 | 4 |
| E1-L152-VA | L152-1 | Ephemeral | DEQ-A | 36.8342 | -79.3329 | 1413.29 | 23 |
| | | | DEQ-B | 36.8340 | -79.3329 | 1413.29 | 23 |
| | | | DEQ-C | 36.8338 | -79.3330 | 1413.29 | 23 |
| E1-L154-VA | L154-1 | Intermittent | DEQ-A | 36.8344 | -79.3329 | 1413.29 | 23 |
| | | | DEQ-B | 36.8349 | -79.3328 | 1413.29 | 23 |
| E1-L155-VA | L155-1 | Intermittent | DEQ-A | 36.8343 | -79.3329 | 1413.29 | 23 |
| | | Intermittent | DEQ-B | 36.8345 | -79.3329 | 1413.29 | 23 |
| E1-L156-VA | L156-1 | Ephemeral | DEQ-A | 36.8346 | -79.3329 | 1413.29 | 23 |
| | | | DEQ-B | 36.8347 | -79.3329 | 1413.29 | 23 |
| | | | DEQ-C | 36.8347 | -79.3329 | 1413.29 | 23 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| E2-L157-VA | L157-1 | Ephemeral | DEQ-A | 36.8358 | -79.3352 | 1413.29 | 23 |
| | | | DEQ-B | 36.8361 | -79.3350 | 1413.29 | 23 |
| | | | DEQ-C | 36.8364 | -79.3349 | 1413.29 | 23 |
| E2-L158-VA | L158-1 | Intermittent | DEQ-A | 36.8366 | -79.3349 | 1413.29 | 23 |
| | | | DEQ-B | 36.8367 | -79.3348 | 1413.29 | 23 |
| E2-L160-VA | L160-1 | Ephemeral | DEQ-A | 36.8363 | -79.3362 | 1413.29 | 23 |
| | | | DEQ-B | 36.8366 | -79.3361 | 1413.29 | 23 |
| E3-L161-VA | L161-1 | Ephemeral | DEQ-A | 36.8346 | -79.3378 | 1413.29 | 23 |
| | | | DEQ-B | 36.8349 | -79.3378 | 1413.29 | 23 |
| E1-L163-VA | L163-1 | Intermittent | DEQ-A | 36.8311 | -79.3389 | 1413 | 23 |
| | | | DEQ-B | 36.8307 | -79.3383 | 1413 | 23 |
| E1-L164-VA | L164-2 | Intermittent | DEQ-A | 36.8311 | -79.3391 | 1413 | 23 |
| | | | DEQ-B | 36.8313 | -79.3395 | 1413 | 23 |
| E1-L165-VA | L165-1 | Ephemeral | DEQ-A | 36.8316 | -79.3400 | 1413 | 23 |
| | | | DEQ-B | 36.8316 | -79.3400 | 1413 | 23 |
| | | | DEQ-C | 36.8315 | -79.3401 | 1413 | 23 |
| E1-L166-VA | L166-1 | Intermittent | DEQ-A | 36.8304 | -79.3418 | 1412.9 | 23 |
| | | | DEQ-B | 36.8304 | -79.3421 | 1412.9 | 23 |
| | | | DEQ-C | 36.8303 | -79.3423 | 1412.9 | 23 |
| E1-L167-VA | L167-1 | Intermittent | DEQ-A | 36.7722 | -79.3959 | M-0307 1407.90 | 19 |
| | | | DEQ-B | 36.7723 | -79.3959 | M-0307 1407.90 | 19 |
| E1-L169-VA | L169-1 | Ephemeral | DEQ-A | 36.7847 | -79.3803 | M-0437 1409.20 | 20 |
| | | | DEQ-B | 36.7847 | -79.3802 | M-0437 1409.20 | 20 |
| E1-L171-VA | L171-1 | Ephemeral | DEQ-A | 36.7431 | -79.4355 | M-0388 1404.80 | 16 |
| | | | DEQ-B | 36.7429 | -79.4354 | M-0388 1404.80 | 16 |
| | L171-2 | Perennial | DEQ-C | 36.7427 | -79.4352 | M-0388 1404.80 | 16 |
| | | | DEQ-D | 36.7425 | -79.4350 | M-0388 1404.80 | 16 |
| E1-L173-VA | L173-1 | Ephemeral | DEQ-A | 36.7428 | -79.4355 | M-0388 1404.80 | 16 |
| | | | DEQ-B | 36.7427 | -79.4354 | M-0388 1404.80 | 16 |
| | L173-2 | Perennial | DEQ-C | 36.7425 | -79.4353 | M-0388 1404.80 | 16 |
| | | | DEQ-D | 36.7425 | -79.4351 | M-0388 1404.80 | 16 |
| E1-L176-VA | L176-1 | Ephemeral | DEQ-A | 36.7882 | -79.3822 | M-0437 1409.50 | 20 |
| | | | DEQ-B | 36.7881 | -79.3822 | M-0437 1409.40 | 20 |
| E1-L179-VA | L179-1 | Intermittent | DEQ-A | 36.7877 | -79.3765 | 1409.4 | 20 |
| | | | DEQ-B | 36.7875 | -79.3765 | M-0437 1409.30 | 20 |

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: March 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Kyle Zinn, Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Swale

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.5519580657609 | Long: -79.6233299821183 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L003-A; Attachment I; Sheet 2

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

☐ Gage data
☐ Regional Curve
✓Climatic data
✓Aerial photos
✓LIDAR
✓Soil Survey
✓Topographic Maps
☐ Other

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: March 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Kyle Zinn, Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Swale

Local relief (concave, convex, none): Concave | Slope (%): 6%

Lat: 36.5522367812265 | Long: -79.6231131547518 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L003-B; Attachment I; Sheet 2

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓LIDAR |
| ☐ Regional Curve | ✓Soil Survey |
| ✓Climatic data | ✓Topographic Maps |
| ✓Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☑ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: March 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.5525937556314 | Long: -79.6225588300431 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L003-C; Attachment I; Sheet 2

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓LIDAR |
| ☐ Regional Curve | ✓Soil Survey |
| ✓Climatic data | ✓ Topographic Maps |
| ✓Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: March 28, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.7189115661497 | Long: -79.4569752042442 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L008-A; Attachment I; Sheet 14

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: March 28, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.7194854932265 | Long: -79.4572549116836 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L008-B; Attachment I; Sheet 14 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓Topographic Maps | |
| ✓Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

**☑ Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

**☑ Channel Bars**

- ☐ Shelving (on bar)
- ☑ Unvegetated (on bar)
- ☑ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: March 28, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.720099 | Long: -79.457208 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L008-C; Attachment I; Sheet 14

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

- ☐ Gage data
- ✓ LIDAR
- ☐ Regional Curve
- ✓ Soil Survey
- ✓Climatic data
- ✓ Topographic Maps
- ✓ Aerial photos
- ☐ Other

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 3, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Floodplain

Local relief (concave, convex, none): Concave | Slope (%): 0%

Lat: 36.7349456153141 | Long: -79.4409564715327 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L013-A; Attachment I; Sheet 15

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 3, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Floodplain

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.735076189038 | Long: -79.4413685218378 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L013-B; Attachment I; Sheet 15 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☑ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☑ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in field. This stream typically has annual flow, has groundwater influence, and flows during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☑ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.632609462037 | Long: -79.5440263736311 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L018-A; Attachment I; Sheet 8

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.6327837314637 | Long: -79.544120238325 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L018-B; Attachment I; Sheet 8

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☑ **Channel Bars**

- ☐ Shelving (on bar)
- ☑ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: April 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 4%

Lat: 36.6330791281 Long: -79.5442515719999 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L018-C; Attachment I; Sheet 8

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☑ **Channel Bars**

- ☐ Shelving (on bar)
- ☑ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☑ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☑ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☑ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: June 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave Slope (%): 3%

Lat: 36.6337977324739 Long: -79.5426437219199 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L020-A; Attachment I; Sheet 8 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: June 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 5%

Lat: 36.633835502783 | Long: -79.5427801202192 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L020-B; Attachment I; Sheet 8 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.6382384336788 | Long: -79.5369258105907 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L024-A; Attachment I; Sheet 8

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.6379533458992 | Long: -79.5371356467677 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L024-B; Attachment I; Sheet 8

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: April 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 3%

Lat: 36.6377222039366 Long: -79.5373167354951 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L024-C; Attachment I; Sheet 8 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

☐ Gage data
✓ LIDAR
☐ Regional Curve
✓ Soil Survey
✓ Climatic data
✓ Topographic Maps
✓ Aerial photos
☐ Other

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☑ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☑ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 5%

Lat: 36.6375475443882 | Long: -79.5374662650685 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L025-A; Attachment I; Sheet 8

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.6374810096344 | Long: -79.5375052987492 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L025-B; Attachment I; Sheet 8

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 15, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith, Kyle Zinn, Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.5892305705444 | Long: -79.5855229047401 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L028-A; Attachment I; Sheet 5

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 15, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith, Kyle Zinn, Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.5891218985326 | Long: -79.5856240418973 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L028-B; Attachment I; Sheet 5

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 15, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith, Kyle Zinn, Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.5890540470842 | Long: -79.5857440923648 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L028-C; Attachment I; Sheet 5

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 15, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.5904172210623 | Long: -79.5835398419321 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L029-A; Attachment I; Sheet 5

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 15, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.5904842583678 | Long: -79.5837419301176 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L029-B; Attachment I; Sheet 5 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 15, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.5905385430912 | Long: -79.5839949892021 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L029-C; Attachment I; Sheet 5

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in field. This stream typically has annual flow, has groundwater influence, and flows during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☑ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 15, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.5938144340698 | Long: -79.5798062192188 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L030-A; Attachment I; Sheet 5

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 15, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.5940712334047 | Long: -79.5797712500433 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L030-B; Attachment I; Sheet 5 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 16, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.6068397667736 | Long: -79.5683354192534 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☐ **Yes** ☑ **No**<br>L034-A; Attachment I; Sheet 6 |
|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 16, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Swale

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.6067383367 | Long: -79.568300133137 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L034-B; Attachment I; Sheet 6

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☑ **Channel Bars**

- ☐ Shelving (on bar)
- ☑ Unvegetated (on bar)
- ☑ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☑ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in field. This stream typically has annual flow, has groundwater influence, and flows during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☑ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: April 16, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.6082943656938 Long: -79.5672638201147 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L035-A; Attachment I; Sheet 6 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 16, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.6082065761963 | Long: -79.567325434775 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L035-B; Attachment I; Sheet 6 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 17, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.60809878099 | Long: -79.5673828643346 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

**Stream bed present:** ☐ **Yes** ☑ **No**

**Stream bank present:** ☐ **Yes** ☑ **No**

**OHWM present:** ☐ **Yes** ☑ **No**

Stream Identified: ☐ **Yes** ☑ **No**

L035-C; Attachment I; Sheet 6

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

☐ Gage data
☐ Regional Curve
✓ Climatic data
✓ Aerial photos
✓ LIDAR
✓ Soil Survey
✓ Topographic Maps
☐ Other

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 17, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.5993044584061 | Long: -79.5745404001467 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L038-A; Attachment I; Sheet 6 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 17, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.5992813395809 | Long: -79.5745861754899 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L038-B; Attachment I; Sheet 6

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 17, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 5%

Lat: 36.6018105600271 | Long: -79.5665414351318 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L039-A; Attachment I; Sheet 6

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 17, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 5%

Lat: 36.6018892575584 | Long: -79.5666576468147 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L039-B; Attachment I; Sheet 6

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 18, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Floodplain

Local relief (concave, convex, none): Concave | Slope (%): 1%

Lat: 36.5962849692858 | Long: -79.5773977989239 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L041-A; Attachment I; Sheet 5

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 18, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Floodplain

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.5961465772111 | Long: -79.5774515792163 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L041-B; Attachment I; Sheet 5

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☑ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☑ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☑ Sediment transition or sorting (on bar)
- ☑ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☑ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 22, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.6175425544116 | Long: -79.5599304390177 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L043-A; Attachment I; Sheet 7

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☑ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 23, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.6235780412211 | Long: -79.5530819567704 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L044-A; Attachment I; Sheet 7

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 23, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 5%

Lat: 36.6242403250531 | Long: -79.5530387652284 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L044-B; Attachment I; Sheet 7 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☑ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 23, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.6282313248808 | Long: -79.5484369247314 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L045-A; Attachment I; Sheet 8

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 23, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.6284797840917 | Long: -79.5485742674471 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L045-B; Attachment I; Sheet 8 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☑ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 29, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.641087998474 | Long: -79.5337497097113 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L050-A; Attachment I; Sheet 9

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 29, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.6413565986019 | Long: -79.5336822407399 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L050-B; Attachment I; Sheet 9 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 29, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.641533143334 | Long: -79.5336976091959 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L050-C; Attachment I; Sheet 9

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 29, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.6418453404957 | Long: -79.5338629295526 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L051-A; Attachment I; Sheet 9 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 29, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.6419157128682 | Long: -79.5339131488882 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L051-B; Attachment I; Sheet 9 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☑ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☑ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 0%

Lat: 36.6425697189743 | Long: -79.5319697129168 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L052-A; Attachment I; Sheet 9

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.6423205823547 | Long: -79.5321560389971 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L052-B; Attachment I; Sheet 9

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

**☑ Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

**☑ Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☑ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in field. This stream typically has annual flow, has groundwater influence, and flows during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☑ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.642717 | Long: -79.53201 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L053-A; Attachment I; Sheet 9

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.6427677181418 | Long: -79.5319271679232 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L053-B; Attachment I; Sheet 9

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

**☑ Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

**☑ Channel Bars**

- ☐ Shelving (on bar)
- ☑ Unvegetated (on bar)
- ☑ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.6433470363394 | Long: -79.531475775408 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L054-A; Attachment I; Sheet 9

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.6431389690783 | Long: -79.5316386099341 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L054-B; Attachment I; Sheet 9

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: April 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 3%

Lat: 36.6429277460871 Long: -79.5318734247162 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L054-C; Attachment I; Sheet 9 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 1%

Lat: 36.7172074496157 | Long: -79.459689826021 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L055-A; Attachment I; Sheet 14

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese, Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.717385915 | Long: -79.4598222366667 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L055-B; Attachment I; Sheet 14 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.7174632817107 | Long: -79.4598657750633 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L055-C; Attachment I; Sheet 14

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.6428210186989 | Long: -79.5320420358756 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L056-A; Attachment I; Sheet 9

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: April 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.6427741258123 | Long: -79.5320249196383 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L056-B; Attachment I; Sheet 9

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 3, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.6935535666862 | Long: -79.4829539911917 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

**Stream bed present:** ☐ **Yes** ☑ **No**

**Stream bank present:** ☐ **Yes** ☑ **No**

**OHWM present:** ☐ **Yes** ☑ **No**

Stream Identified: ☐ **Yes** ☑ **No**

L063-A; Attachment I; Sheet 12

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

☐ Gage data
☐ Regional Curve
✓ Climatic data
✓ Aerial photos
✓ LIDAR
✓ Soil Survey
✓ Topographic Maps
☐ Other

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 3, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.6935739634068 | Long: -79.4830921068539 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L063-B; Attachment I; Sheet 12 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 3, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.6934419423133 | Long: -79.4830904354098 | Datum: NAD-83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L064-A; Attachment I; Sheet 12 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 3, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 3%

Lat: 36.6934746194689 Long: -79.4831743512265 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L064-B; Attachment I; Sheet 12 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 3, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 3%

Lat: 36.6935171192052 Long: -79.4829426900743 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L065-A; Attachment I; Sheet 12 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 3, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.6935060833478 | Long: -79.4830986369493 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L065-B; Attachment I; Sheet 12 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 4, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 1%

Lat: 36.5545886771689 Long: -79.6207642896243 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L068-A; Attachment I; Sheet 3 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 4, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.5546773984348 | Long: -79.6209028729807 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L068-B; Attachment I; Sheet 3 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 7, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.7669394210872 | Long: -79.4081625151571 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L071-A; Attachment I; Sheet 17 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

☐ Gage data
☐ Regional Curve
✓ Climatic data
✓ Aerial photos
✓ LIDAR
✓ Soil Survey
✓ Topographic Maps
☐ Other

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 7, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 5%

Lat: 36.766950943339 | Long: -79.4080270939141 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L071-B; Attachment I; Sheet 17 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.5546773984348 | Long: -79.6209028729807 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L073-A: Attachment I; Sheet 17

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

- ☐ Gage data
- ☐ Regional Curve
- ✓ Climatic data
- ✓ Aerial photos
- ✓ LIDAR
- ✓ Soil Survey
- ✓ Topographic Maps
- ☐ Other

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.7687056591654 | Long: -79.408620735347 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☑ **Yes** ☐ **No**<br>L073-B; Attachment I; Sheet 17 |
|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.7696504066631 | Long: -79.4074990427092 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

**Stream bed present:** ☐ **Yes** ☑ **No**

**Stream bank present:** ☐ **Yes** ☑ **No**

**OHWM present:** ☐ **Yes** ☑ **No**

Stream Identified: ☐ **Yes** ☑ **No**

L074-A; Attachment I; Sheet 18

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

☐ Gage data
☐ Regional Curve
✓ Climatic data
✓ Aerial photos
✓ LIDAR
✓ Soil Survey
✓ Topographic Maps
☐ Other

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 5%

Lat: 36.7696337864185 | Long: -79.4077751713621 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☑ **Yes** ☐ **No** |
|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L074-B; Attachment I; Sheet 18 |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 9, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 1%

Lat: 36.7604515514939 | Long: -79.4169887757495 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L076-A; Attachment I; Sheet 17

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 9, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.7605375483844 | Long: -79.4170007585811 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L076-B; Attachment I; Sheet 17 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☑ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 9, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.7605723131335 | Long: -79.416934948329 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☐ **Yes** ☑ **No**<br>L076-C; Attachment I; Sheet 17 |
|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 9, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Kyle Zinn

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 8%

Lat: 36.7754347520749 | Long: -79.3985121393871 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L077-A; Attachment I; Sheet 18 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 9, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Kyle Zinn

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 8%

Lat: 36.7753201337367 | Long: -79.3985344948094 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L077-B; Attachment I; Sheet 18 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 9, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Kyle Zinn

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.775259172991 | Long: -79.3986487722968 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L077-C; Attachment I; Sheet 18 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 10, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss

Landform (hillslope, terrace, etc.): Swale

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.7572855644782 | Long: -79.4199312242413 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L078-A; Attachment I; Sheet 17

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 10, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss

Landform (hillslope, terrace, etc.): Swale

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.7570722251634 | Long: -79.4197984086219 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L078-B; Attachment I; Sheet 17 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Kyle Zinn

Landform (hillslope, terrace, etc.): Swale

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.7573744277972 Long: -79.4199503171159 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L079-A; Attachment I; Sheet 17 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Kyle Zinn

Landform (hillslope, terrace, etc.): Swale

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.7576060650477 | Long: -79.4201910199352 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L079-B; Attachment I; Sheet 17

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Mike Smith

Landform (hillslope, terrace, etc.): Swale

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.7534065694963 | Long: -79.4232323596857 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L081-A; Attachment I; Sheet 16

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Kyle Zinn

Landform (hillslope, terrace, etc.): Swale

Local relief (concave, convex, none): Concave | Slope (%): 5%

Lat: 36.7533802875071 | Long: -79.4232443366821 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L081-B; Attachment I; Sheet 16 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

**☑ Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☑ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

**☑ Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☑ Vegetation transition (on bar)
- ☑ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically flows during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☑ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 10, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Kyle Zinn

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 12%

Lat: 36.7527833746661 | Long: -79.4245884873376 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☐ **Yes** ☑ **No**<br>L083-A; Attachment I; Sheet 16 |
|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 10, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Kyle Zinn

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 12%

Lat: 36.7531037486856 | Long: -79.4245888804261 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L083-B; Attachment I; Sheet 16

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☑ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 10, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Kyle Zinn

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.7532391035654 | Long: -79.4244586865324 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L083-C; Attachment I; Sheet 16 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 29, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.8281727616262 | Long: -79.3429555157168 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☐ **Yes** ☑ **No**<br>L084-A; Attachment I; Sheet 23 |
|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 29, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8281933144427 | Long: -79.3433296315607 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☑ **Yes** ☐ **No** |
|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L084-B; Attachment I; Sheet 23 |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☑ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in field. This stream typically has annual flow, has groundwater influence, and flows during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☑ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: March 14, 2025

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8289921047037 | Long: -79.3421326626674 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L085-A; Attachment I: Sheet 23 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 29, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 1%

Lat: 36.8291814919032 | Long: -79.3424299545025 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L085-B; Attachment I: Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☑ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 4%

Lat: 36.8278405982605 Long: -79.3410538492093 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L086-A; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.):

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8281032122856 | Long: -79.3415488401715 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L086-B; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☑ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in field. This stream typically has annual flow, has groundwater influence, and flows during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☑ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.8281177616605 Long: -79.3420138152212 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L086-C; Attachment I; Sheet 23 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.8281064364819 | Long: -79.3413322946388 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☐ **Yes** ☑ **No**<br>L087-A; Attachment I; Sheet 23 |
|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8280621866169 | Long: -79.3413851910078 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L087-B; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.7886392622467 | Long: -79.3877145584495 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☐ **Yes** ☑ **No**<br>L088-A; Attachment I; Sheet 20 |
|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.7886662889645 | Long: -79.387025497945 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L088-B; Attachment I; Sheet 20 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☑ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 1%

Lat: 36.6681263743577 Long: -79.5080999835494 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L089-A; Attachment I; Sheet 10

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.6679528379792 | Long: -79.5084270222801 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L089-B; Attachment I; Sheet 10

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☑ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 0%

Lat: 36.6683541890833 | Long: -79.5080166246586 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☐ **Yes** ☑ **No**<br><br>L091-A; Attachment I; Sheet 10 |
|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 0%

Lat: 36.6683775116764 | Long: -79.5079287852046 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L091-B; Attachment I; Sheet 10 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☑ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.7889920712573 | Long: -79.3860603028677 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L092-A; Attachment I; Sheet 20

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.78869727725 | Long: -79.386025217832 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L092-B; Attachment I; Sheet 20

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.7888279423066 | Long: -79.3860925566921 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L093-A; Attachment I; Sheet 20

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 1%

Lat: 36.7888130859331 | Long: -79.3860864540989 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L093-B; Attachment I; Sheet 20

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☑ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☑ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Kyle Zinn

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Convex | Slope (%): 3%

Lat: 36.789346 | Long: -79.386050 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L094-A; Attachment I; Sheet 20

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be an upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Kyle Zinn

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.789214 Long: -79.386156 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L094-B; Attachment I; Sheet 20 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

☐ Gage data
☐ Regional Curve
✓ Climatic data
✓ Aerial photos
✓ LIDAR
✓ Soil Survey
✓ Topographic Maps
☐ Other

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Floodplain

Local relief (concave, convex, none): Concave | Slope (%): 1%

Lat: 36.6738781093547 | Long: -79.5024611874659 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L097-A; Attachment I; Sheet 11

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☑ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 14, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.7777464306437 | Long: -79.3871119669565 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L102-A; Attachment I; Sheet 19

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 14, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.7777550489052 Long: -79.3869229350386 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L102-B; Attachment I; Sheet 19 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 15, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.793418980347 | Long: -79.3826052292917 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L105-A; Attachment I; Sheet 20

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 15, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.7933496218116 | Long: -79.382284838129 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L105-B; Attachment I; Sheet 20

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 16, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8085864117951 | Long: -79.364009026722 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L112-A; Attachment I; Sheet 21

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 16, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 1%

Lat: 36.8084483307291 | Long: -79.3638963220946 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L112-B; Attachment I; Sheet 21 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☑ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 16, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave Slope (%): 3%

Lat: 36.8156840612646 Long: -79.3562338419677 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L117-A; Attachment I; Sheet 22 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 16, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8162147325357 | Long: -79.3538764593103 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L118-A; Attachment I; Sheet 22

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 16, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave Slope (%): 1%

Lat: 36.8161435683615 Long: -79.3535791380842 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L118-B; Attachment I; Sheet 22 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 17, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave Slope (%): 3%

Lat: 36.8211017558159 Long: -79.3493423982969 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L120-A; Attachment I; Sheet 22 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 17, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8211334683682 | Long: -79.3493257011804 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L120-B; Attachment I; Sheet 22

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☑ **Channel Bars**

- ☐ Shelving (on bar)
- ☑ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 20, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Floodplain

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.8241728055115 Long: -79.3472082140774 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

**Stream bed present:** ☐ **Yes** ☑ **No**

**Stream bank present:** ☐ **Yes** ☑ **No**

**OHWM present:** ☐ **Yes** ☑ **No**

Stream Identified: ☐ **Yes** ☑ **No**

L122-A; Attachment I; Sheets 22 and 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

☐ Gage data
☐ Regional Curve
✓ Climatic data
✓ Aerial photos
✓ LIDAR
✓ Soil Survey
✓ Topographic Maps
☐ Other

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 20, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.8240187440038 Long: -79.3471635201617 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L122-B; Attachment I; Sheets 22 and 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☑ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☑ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Mike Smith

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.5566126389467 | Long: -79.6178641912898 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L124-A; Attachment I; Sheet 3

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Mike Smith

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.5565258850499 | Long: -79.6179102975387 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L124-B; Attachment I; Sheet 3 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in field. This stream typically has annual flow, has groundwater influence, and does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 20, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Kyle Zinn

Landform (hillslope, terrace, etc.): Floodplain

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.824567 Long: -79.346463 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☐ **Yes** ☑ **No**<br><br>L125-A; Attachment I; Sheet 23 |
|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 20, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Kyle Zinn

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.824463 Long: -79.346571 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L125-B; Attachment I; Sheet 23 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

☐ Gage data
☐ Regional Curve
✓ Climatic data
✓ Aerial photos
✓ LIDAR
✓ Soil Survey
✓ Topographic Maps
☐ Other

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically flows during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☑ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 20, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Kyle Zinn

Landform (hillslope, terrace, etc.): Floodplain

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.824368 Long: -79.346665 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☐ **Yes** ☑ **No**<br><br>L125-C; Attachment I; Sheet 23 |
|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 20, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.585800272001 | Long: -79.5886285964909 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L128-A; Attachment I; Sheet 5

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 20, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.5859543763974 | Long: -79.5888640758363 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L128-B; Attachment I; Sheet 5

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

**☑ Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

**☑ Channel Bars**

- ☐ Shelving (on bar)
- ☑ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Kyle Zinn

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.5856285683957 | Long: -79.5881802377655 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L129-A; Attachment I; Sheet 5

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be a wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Jen Feese

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave Slope (%): 3%

Lat: 36.5856025008455 Long: -79.5881482772077 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L129-B; Attachment I; Sheet 5

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Kyle Zinn

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.5564627798818 | Long: -79.6181232251088 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L130-A; Attachment I; Sheet 3

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Jen Feese

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.5563437035104 | Long: -79.6179648672615 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L130-B; Attachment I; Sheet 3

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in field. This stream typically has annual flow, has groundwater influence, and does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss

Landform (hillslope, terrace, etc.): Swale

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.5572527362107 Long: -79.6177908236605 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L133-A; Attachment I; Sheet 3 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss

Landform (hillslope, terrace, etc.): Swale

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.557778628856 | Long: -79.6176595166382 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L133-B; Attachment I; Sheet 3 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☑ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has annual flow, has groundwater influence, and does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.8360893734332 Long: -79.3337018516375 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L134-A; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave | Slope (%): 1%

Lat: 36.8363220513925 | Long: -79.3336472338825 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L134-B; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☑ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☑ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☑ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.5578395994008 | Long: -79.6177971698018 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☐ **Yes** ☑ **No**<br>L136-A; Attachment I; Sheet 3 |
|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 5%

Lat: 36.5577062789038 Long: -79.6177296360015 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | **☑ Yes** | **☐ No** |
|---|---|---|---|---|---|
| **Stream bed present:** | **☑ Yes** | **☐ No** | L136-B; Attachment I; Sheet 3 | | |
| **Stream bank present:** | **☑ Yes** | **☐ No** | | | |
| **OHWM present:** | **☑ Yes** | **☐ No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

**☑ Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

**☐ Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.5574127056324 | Long: -79.6165083055049 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L137-A; Attachment I; Sheet 3

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.5572265566838 | Long: -79.6164797897348 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L137-B; Attachment I; Sheet 3

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 1%

Lat: 36.8354132772014 | Long: -79.3343086368892 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L138-A; Attachment I; Sheet 23 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8357901930828 | Long: -79.3340276799814 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L138-B; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.5658737078656 | Long: -79.6080017306361 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L139-A; Attachment I; Sheet 3

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave Slope (%): 3%

Lat: 36.5658171369952 Long: -79.6075359944184 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L139-B; Attachment I; Sheet 3

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☑ Clear bankfull storm event indicators present

☑ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☑ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☑ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in field. This stream typically has annual flow, has groundwater influence, and flows during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☑ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.5655669948162 | Long: -79.608004494677 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L141-A; Attachment I; Sheet 3

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.5655945116255 | Long: -79.6078683363107 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L141-B; Attachment I; Sheet 3

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☑ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 21, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 3%

Lat: 36.5657044458927 Long: -79.607665245884 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L141-C; Attachment I; Sheet 3

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: June 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Kyle Zinn

Landform (hillslope, terrace, etc.): Swale

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.757663 | Long: -79.420312 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L145-A; Attachment I; Sheet 17 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Mike Smith

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.5746506143107 | Long: -79.5992326268663 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L148-A; Attachment I; Sheet 4

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Mike Smith

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 6%

Lat: 36.5740621067662 | Long: -79.5992885740786 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L148-B; Attachment I; Sheet 4

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 22, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.5737213773423 Long: -79.6001944867954 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L149-A; Attachment I; Sheet 4

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 22, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 1%

Lat: 36.5736660291192 | Long: -79.5999378339901 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L149-B; Attachment I; Sheet 4

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 22, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 1%

Lat: 36.573686695288 | Long: -79.5996860491003 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L-149-C; Attachment I; Sheet 4

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 22, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Swale

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.5765929770633 Long: -79.5972603209668 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L150-A; Attachment I; Sheet 4

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 22, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Swale

Local relief (concave, convex, none): Concave Slope (%): 3%

Lat: 36.576384340624 Long: -79.597238009301 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L150-B; Attachment I; Sheet 4 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

**☑ Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

**☑ Channel Bars**

- ☐ Shelving (on bar)
- ☑ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 22, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.5774530826464 | Long: -79.5964457961337 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L151-A; Attachment I; Sheet 4 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 22, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.5773833882821 | Long: -79.5964576774719 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L151-B; Attachment I; Sheet 4

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 3%

Lat: 36.8342308965521 Long: -79.3329092190107 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L152-A; Attachment I; Sheet 23 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8340140774223 | Long: -79.3328771834001 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L152-B; Attachment I; Sheet 23 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave Slope (%): 1%

Lat: 36.833780997641 Long: -79.3329569957146 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L152-C; Attachment I; Sheet 23 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.8344148027253 | Long: -79.3328712622111 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☐ **Yes** ☑ **No**<br>L154-A; Attachment I; Sheet 23 |
|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.834944878407 | Long: -79.3328229318172 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L154-B; Attachment I; Sheet 23 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☑ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8343073730524 | Long: -79.3329079283975 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L155-A; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8344746079725 | Long: -79.3329281553377 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L155-B; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☑ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☑ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☑ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☑ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.8345922648622 Long: -79.3328941540567 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L156-A; Attachment I; Sheet 23 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8346830100561 | Long: -79.3329414239001 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L156-B; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Floodplain

Local relief (concave, convex, none): Concave Slope (%): 0%

Lat: 36.8347180003674 Long: -79.3329093571113 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L156-C; Attachment I; Sheet 23 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.8358138015747 Long: -79.3351831237346 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L157-A; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.8361042882614 | Long: -79.3350361278423 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L157-B; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.8364384311324 | Long: -79.334904469219 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☐ **Yes** ☑ **No**<br><br>L157-C; Attachment I; Sheet 23 |
|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.8365925376842 | Long: -79.3348846473668 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L158-A; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.8366537067742 | Long: -79.3348394321619 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L158-B; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.8363105264809 | Long: -79.336236479553 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L160-A; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Mike Smith

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.8365741171454 | Long: -79.3361352680166 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | **☑ Yes** | **☐ No** |
|---|---|---|---|---|---|
| **Stream bed present:** | **☑ Yes** | **☐ No** | L160-B; Attachment I; Sheet 23 | | |
| **Stream bank present:** | **☑ Yes** | **☐ No** | | | |
| **OHWM present:** | **☑ Yes** | **☐ No** | | | |

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

☐ Gage data
☐ Regional Curve
☑ Climatic data
☑ Aerial photos
☑ LIDAR
☑ Soil Survey
☑ Topographic Maps
☐ Other

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

**☑ Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

**☐ Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss, Jen Feese

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 5%

Lat: 36.8346412295179 | Long: -79.3378244577977 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L161-A; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 24, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Michaela Moss

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 5%

Lat: 36.8348968632036 | Long: -79.3378393824312 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L161-B; Attachment I; Sheet 23 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8311008649215 | Long: -79.3389260494826 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L163-A; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 1%

Lat: 36.8307099097192 | Long: -79.3382661265145 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L163-B; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.8311450114692 Long: -79.3390513116406 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L164-A; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.8313024001719 | Long: -79.3395150184875 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L164-B; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☑ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4%

Lat: 36.831606165942 | Long: -79.3400307594974 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L165-A; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8315618408468 | Long: -79.3400456315214 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L165-B; Attachment I; Sheet 23 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☑ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 30, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave Slope (%): 1%

Lat: 36.8315255482493 Long: -79.3400721469745 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L165-C; Attachment I; Sheet 23 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 5%

Lat: 36.8303632605126 | Long: -79.3418357152001 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L166-A; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.8303808189343 | Long: -79.3420803853858 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L166-B; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: May 31, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.8302562835537 Long: -79.3422764674513 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

**Stream bed present:** ☐ **Yes** ☑ **No**

**Stream bank present:** ☐ **Yes** ☑ **No**

**OHWM present:** ☐ **Yes** ☑ **No**

Stream Identified: ☐ **Yes** ☑ **No**

L166-C; Attachment I; Sheet 23

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

☐ Gage data
☐ Regional Curve
✓ Climatic data
✓ Aerial photos
✓ LIDAR
✓ Soil Survey
✓ Topographic Maps
☐ Other

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: August 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Kyle Zinn

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4

Lat: 36.7722019929825 | Long: -79.3958795743069 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L167-A; Attachment I; Sheet 19

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be an upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: August 13, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Kyle Zinn

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2

Lat: 36.7722562742716 | Long: -79.3958819340995 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L167-B; Attachment I; Sheet 19

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

**☑ Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☑ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

**☑ Channel Bars**

- ☐ Shelving (on bar)
- ☑ Unvegetated (on bar)
- ☑ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐Mudcracks (found within an unvegetated flow path/channel)
- ☑Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☑ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑**Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: August 19, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Kyle Zinn

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 4

Lat: 36.7846673104406 | Long: -79.380315335812 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L169-A; Attachment I; Sheet 20

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be an upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: August 19, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt, Kyle Zinn

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2

Lat: 36.7847400831424 | Long: -79.380229103637 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L169-B; Attachment I; Sheet 20

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidencee of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☑Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☑ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: October 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Convex | Slope (%): 3%

Lat: 36.7430634816168 | Long: -79.4355146606779 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L171-A; Attachment I; Sheet 16

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be an upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: October 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.7429348867656 | Long: -79.4354200794084 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L171-B; Attachment I; Sheet 16

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: October 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.7426708545451 | Long: -79.4351680455113 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L171-C; Attachment I; Sheet 16 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☑ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in field. This stream typically has annual flow, has groundwater influence, and flows during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☑ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: October 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave | Slope (%): 1%

Lat: 36.7424913353821 | Long: -79.434956155592 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☐ **Yes** ☑ **No**<br>L171-D; Attachment I; Sheet 16 |
|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: October 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Convex | Slope (%): 2%

Lat: 36.7427927397993 | Long: -79.4354700767964 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: ☐ **Yes** ☑ **No**<br>L173-A; Attachment I; Sheet 16 |
|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be an upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: October 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave | Slope (%): 2%

Lat: 36.7427149789367 | Long: -79.435429123431 | Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L173-B; Attachment I; Sheet 16 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☑ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: October 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Valley

Local relief (concave, convex, none): Concave Slope (%): 2%

Lat: 36.7425493457655 Long: -79.4352537995487 Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L173-C; Attachment I; Sheet 16

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ☑ LIDAR |
| ☐ Regional Curve | ☑ Soil Survey |
| ☑ Climatic data | ☑ Topographic Maps |
| ☑ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☑ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☑ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☑ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in field. This stream typically has annual flow, has groundwater influence, and flows during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☑ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: October 8, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Lindsey Shortt

Landform (hillslope, terrace, etc.): Flat

Local relief (concave, convex, none): Concave Slope (%): 1%

Lat: 36.7424589013589 Long: -79.4350616708813 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L173-D; Attachment I; Sheet 16 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: October 15, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese, Mike Smith

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 4%

Lat: 36.7882306472186 Long: -79.3822214621303 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☐ **Yes** | ☑ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** | L176-A; Attachment I; Sheet 20 | | |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** | | | |
| **OHWM present:** | ☐ **Yes** | ☑ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ☑ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ☑ Soil Survey | |
| ☑ Climatic data | ☑ Topographic Maps | |
| ☑ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be an upland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project City/County: Pittsylvania County Date: October 15, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese, Mike Smith

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave Slope (%): 4%

Lat: 36.7880989936815 Long: -79.3821648535563 Datum: NAD 83

| **SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.** | | | Stream Identified: | ☑ **Yes** | ☐ **No** |
|---|---|---|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** | L176-B; Attachment I; Sheet 20 | | |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** | | | |
| **OHWM present:** | ☑ **Yes** | ☐ **No** | | | |

| Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:** | | Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?** |
|---|---|---|
| ☐ Gage data | ✓ LIDAR | No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads. |
| ☐ Regional Curve | ✓ Soil Survey | |
| ✓ Climatic data | ✓ Topographic Maps | |
| ✓ Aerial photos | ☐ Other | |

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidencee of thalweg
- ☑ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☑Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically flows only in response to stormwater events and lacks groundwater influence.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☑ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: October 15, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese, Mike Smith

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.7876961355961 | Long: -79.3765269671673 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☐ **Yes** | ☑ **No** |
| **Stream bank present:** | ☐ **Yes** | ☑ **No** |
| **OHWM present:** | ☐ **Yes** | ☑ **No** |

Stream Identified: ☐ **Yes** ☑ **No**

L179-A; Attachment I; Sheet 20

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☐ **Channel Bank Features**

- ☐ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☐ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☐ **Channel Bed / Bedload Transport Evidence**

- ☐ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☐ Bedform features (riffle, pool, steps, etc.)
- ☐ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☐ Headcuts (with other evidence)
- ☐ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☐ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☐ **Change in Vegetation Type / Density**

- ☐ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☐ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☐ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☐ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☐ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☐ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Area determined to be wetland. Feature lacks continuous defined OHWM and bed and bank.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☐ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# DEQ Stream Identification Field Data Form

Project/Site: Southeast Supply Enhancement Project | City/County: Pittsylvania County | Date: October 15, 2024

Applicant/Owner: Transcontinental Gas Pipe Line Company, LLC

Investigator(s): Jen Feese, Mike Smith

Landform (hillslope, terrace, etc.): Hillslope

Local relief (concave, convex, none): Concave | Slope (%): 3%

Lat: 36.7875386966748 | Long: -79.3764969886465 | Datum: NAD 83

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations within and upstream of the head of the stream.**

| | | |
|---|---|---|
| **Stream bed present:** | ☑ **Yes** | ☐ **No** |
| **Stream bank present:** | ☑ **Yes** | ☐ **No** |
| **OHWM present:** | ☑ **Yes** | ☐ **No** |

Stream Identified: ☑ **Yes** ☐ **No**

L179-B; Attachment I; Sheet 20

Site overview from remote and online resources. **Check boxes for online resources used to evaluate site:**

| | |
|---|---|
| ☐ Gage data | ✓ LIDAR |
| ☐ Regional Curve | ✓ Soil Survey |
| ✓ Climatic data | ✓ Topographic Maps |
| ✓ Aerial photos | ☐ Other |

Describe land use and flow regime conditions from online resources. **Were there any recent extreme events (flooding or drought)?**

No recent extreme events during the time of field work. Surrounding land is composed of agricultural fields, forest, residential properties, and roads.

**Check the boxes next to the field indicators used in stream determination:**

*Geomorphic Indicators:*

☑ **Channel Bank Features**

- ☑ Natural line impressed on bank (above or below bankfull)
- ☐ Undercut bank
- ☐ Break in slope (on bank or at valley bottom)
- ☑ Continuous bed and bank
- ☐ Shelving (Top of bank, natural levee, or other)
- ☐ Clear bankfull storm event indicators present

☐ **Channel Bars**

- ☐ Shelving (on bar)
- ☐ Unvegetated (on bar)
- ☐ Vegetation transition (on bar)
- ☐ Sediment transition or sorting (on bar)
- ☐ Upper limit of deposition (on bar)

☑ **Channel Bed / Bedload Transport Evidence**

- ☑ Depositional (deposited sediment, lateral bars, mid channel bars, etc.)
- ☑ Bedform features (riffle, pool, steps, etc.)
- ☑ Erosional (scour, smoothing, etc.)
- ☐ Secondary channel (lateral or parallel along the same valley or floodplain)
- ☐ Evidence of thalweg
- ☑ Headcuts (with other evidence)
- ☑ Hydric soil development (changes in the character of soil)
- ☐ Mudcracks (found within an unvegetated flow path/channel)
- ☑ Changes in particle-size distribution (sediment sorting)

*Vegetation Indicators:*

☑ **Change in Vegetation Type / Density**

- ☑ Vegetation absent (channel bed)
- ☐ Vegetation matted down or bent (channel bed or bars)
- ☑ Exposed roots below intact soil later (channel banks)
- ☐ Destruction of terrestrial vegetation (channel banks, top of bank, etc.)
- ☑ Change in plant community (transition from channel bed to floodplain)

*Ancillary Indicators:*

- ☑ Wracking/Presence of organic litter (along channel banks or floodplain)
- ☐ Presence of obstacle marks (i.e. erosion/sedimentation around large obstacles in flow path)
- ☑ Leaf litter disturbed or absent
- ☐ Water staining
- ☐ Weathered clast or bedrock
- ☑ Deposited sediment within leaf pack (floodplain)

**Other observed Indicators and/or additional observations?**

**Describe rational for location of stream and provide supporting evidence for stream identification:** Stream OHWM present and identified in the field. This stream typically has seasonal flow, has groundwater influence, and typically does not flow during the late summer low flow period in non-drought years.

**Chesapeake Bay Preservation Act Flow Regime Determination (if applicable):**

**Site within CBPA locality?** ☐ **Yes** ☑ **No**

**If Yes, which flow regime determination was used:**

☐ NC DWQ ☐Fairfax ☐James City County

**Flow Regime Determination Results:** ☐ **Ephemeral** ☑ **Intermittent** ☐ **Perennial**

*Note: Please refer to the "USACE 2022 National OHWM Field Delineation Manual for Rivers and Streams: Interim Version" at http://dx.doi.org/10.21079/11681/46102 for detail on terminology.*

# EXHIBIT 12 - NC DWQ STREAM FORMS

| NC DWQ STREAM IDENTIFICATION TABLE | | | | | | |
|---|---|---|---|---|---|---|
| **Field Stream ID** | **Map Stream ID (Attachment I)** | **Cowardin** | **Latitude** | **Longitude** | **Nearest Milepost** | **Sheet #** |
| E1-L001-VA | L001-1 | Intermittent | 36.54443 | -79.63076 | 1387.1 | 2 |
| E1-L002-VA | L002-1 | Perennial | 36.54611 | -79.62902 | 1387.3 | 2 |
| E1-L003-VA | L003-1 | Ephemeral | 36.55235 | -79.62294 | 1387.8 | 2 |
| E1-L004-VA | L004-1 | Perennial | 36.55302 | -79.62234 | 1387.9 | 2 |
| E1-L006-VA | L006-1 | Perennial | 36.65811 | -79.51825 | 1397.3 | 10 |
| E1-L007-VA | L007-1 | Perennial | 36.65773 | -79.51845 | 1397.3 | 10 |
| E1-L008-VA | L008-1 | Ephemeral | 36.71938 | -79.45722 | 1402.7 | 14 |
| | L008-2 | Intermittent | 36.71996 | -79.45718 | 1402.8 | 14 |
| E1-L009-VA | L009-1 | Perennial | 36.72038 | -79.45672 | 1402.8 | 14 |
| E1-L010-VA | L010-1 | Perennial | 36.72182 | -79.45482 | 1403 | 14 |
| E1-L011-VA | L011-1 | Intermittent | 36.72022 | -79.45703 | 1402.8 | 14 |
| E1-L012-VA | L012-1 | Perennial | 36.72915 | -79.44658 | 1403.6 | 15 |
| E1-L013-VA | L013-1 | Perennial | 36.73504 | -79.44125 | 1404.1 | 15 |
| E1-L014-VA | L014-1 | Perennial | 36.73484 | -79.44142 | 1404.1 | 15 |
| E1-L015-VA | L015-1 | Intermittent | 36.65600 | -79.51980 | 1397.1 | 10 |
| E1-L016-VA | L016-1 | Perennial | 36.60278 | -79.56762 | 1392.5 | 6 |
| E1-L017-VA | L017-1 | Perennial | 36.60293 | -79.56739 | 1392.5 | 6 |
| E1-L018-VA | L018-1 | Ephemeral | 36.63298 | -79.54419 | 1395 | 8 |
| | L018-2 | Intermittent | 36.63308 | -79.54425 | 1395 | 8 |
| E1-L019-VA | L019-1 | Intermittent | 36.63369 | -79.54293 | 1395 | 8 |
| E1-L020-VA | L020-1 | Ephemeral | 36.63384 | -79.54277 | 1395.1 | 8 |
| E1-L021-VA | L021-1 | Perennial | 36.63590 | -79.54038 | 1395.3 | 8 |
| E1-L022-VA | L022-1 | Perennial | 36.63623 | -79.54103 | 1395.3 | 8 |
| E1-L023-VA | L023-1 | Perennial | 36.63730 | -79.53963 | 1395.4 | 8 |
| E1-L024-VA | L024-1 | Intermittent | 36.63725 | -79.53793 | 1395.4 | 8 |
| | L024-2 | Ephemeral | 36.63796 | -79.53712 | 1395.5 | 8 |
| | L024-3 | Perennial | 36.63655 | -79.53865 | 1395.4 | 8 |

| | | | | | | |
|---|---|---|---|---|---|---|
| E1-L025-VA | L025-1 | Intermittent | 36.63745 | -79.53761 | 1395.5 | 8 |
| | L025-2 | Ephemeral | 36.63753 | -79.53748 | 1395.5 | 8 |
| E1-L027-VA | L027-1 | Intermittent | 36.58744 | -79.58649 | 1391 | 5 |
| E1-L028-VA | L028-1 | Ephemeral | 36.58912 | -79.58563 | 1391.2 | 5 |
| E1-L029-VA | L029-1 | Intermittent | 36.59046 | -79.58367 | 1391.3 | 5 |
| | L029-2 | Perennial | 36.59055 | -79.58401 | 1391.3 | 5 |
| E1-L030-VA | L030-1 | Ephemeral | 36.59394 | -79.57977 | 1391.6 | 5 |
| | L030-2 | Intermittent | 36.59429 | -79.57980 | 1391.7 | 5 |
| E1-L031-VA | L031-1 | Perennial | 36.65378 | -79.52116 | 1396.9 | 9,10 |
| E1-L032-VA | L032-1 | Perennial | 36.65239 | -79.52267 | 1396.8 | 9 |
| E1-L033-VA | L033-1 | Perennial | 36.60670 | -79.56834 | 1392.7 | 6 |
| E1-L034-VA | L034-1 | Perennial | 36.60668 | -79.56829 | 1392.7 | 6 |
| E1-L035-VA | L035-1 | Ephemeral | 36.60819 | -79.56733 | 1392.8 | 6 |
| E1-L036-VA | L036-1 | Perennial | 36.60369 | -79.57074 | 1392.5 | 6 |
| E1-L037-VA | L037-1 | Perennial | 36.59925 | -79.57470 | 1392.1 | 6 |
| E1-L038-VA | L038-1 | Ephemeral | 36.59928 | -79.57458 | 1392.1 | 6 |
| E1-L039-VA | L039-1 | Ephemeral | 36.60186 | -79.56663 | 1392.5 | 6 |
| | L039-2 | Intermittent | 36.60191 | -79.56683 | 1392.5 | 6 |
| E1-L040-VA | L040-1 | Perennial | 36.59600 | -79.57764 | 1391.8 | 5 |
| E1-L041-VA | L041-1 | Intermittent | 36.59599 | -79.57747 | 1391.8 | 5 |
| E1-L042-VA | L042-1 | Perennial | 36.61382 | -79.56259 | M-0402 1393.30 | 7 |
| E1-L043-VA | L043-1 | Ephemeral | 36.61759 | -79.55999 | M-0402 1393.60 | 7 |
| | L043-2 | Intermittent | 36.61730 | -79.55968 | M-0402 1393.60 | 7 |
| E1-L044-VA | L044-1 | Intermittent | 36.62360 | -79.55309 | 1394.2 | 7 |
| E1-L045-VA | L045-1 | Intermittent | 36.62835 | -79.54851 | 1394.6 | 8 |
| E1-L046-VA | L046-1 | Intermittent | 36.63831 | -79.53844 | 1395.5 | 8 |
| E1-L047-VA | L047-1 | Ephemeral | 36.63804 | -79.53695 | 1395.5 | 8 |
| E1-L050-VA | L050-1 | Intermittent | 36.64098 | -79.53378 | 1395.8 | 9 |
| | L050-2 | Ephemeral | 36.64111 | -79.53374 | 1395.8 | 9 |
| | L050-3 | Intermittent | 36.64127 | -79.53367 | 1395.8 | 9 |
| E1-L051-VA | L051-1 | Intermittent | 36.64190 | -79.53390 | 1395.8 | 9 |
| E1-L052-VA | L052-1 | Perennial | 36.64233 | -79.53216 | 1395.9 | 9 |
| E1-L053-VA | L053-1 | Intermittent | 36.64281 | -79.53191 | 1396 | 9 |

| | | | | | | |
|---|---|---|---|---|---|---|
| E1-L054-VA | L054-1 | Intermittent | 36.64311 | -79.53168 | 1396 | 9 |
| E2-L055-VA | L055-1 | Ephemeral | 36.71735 | -79.45974 | 1402.5 | 14 |
| E1-L056-VA | L056-1 | Ephemeral | 36.64280 | -79.53204 | 1395.9 | 9 |
| E1-L057-VA | L057-1 | Perennial | 36.77414 | -79.40097 | M-0307 1407.80 | 18,19 |
| E2-L058-VA | L058-1 | Perennial | 36.70802 | -79.46833 | 1401.7 | 13 |
| E1-L059-VA | L059-1 | Intermittent | 36.65193 | -79.52223 | 1396.8 | 9 |
| E2-L060-VA | L060-1 | Perennial | 36.70612 | -79.46993 | 1401.6 | 13 |
| E2-L061-VA | L061-1 | Perennial | 36.70226 | -79.47378 | 1401.2 | 13 |
| E2-L062-VA | L062-1 | Perennial | 36.69911 | -79.47687 | 1401 | 13 |
| E2-L063-VA | L063-1 | Ephemeral | 36.69357 | -79.48307 | 1400.4 | 12 |
| E2-L064-VA | L064-1 | Ephemeral | 36.69347 | -79.48312 | 1400.4 | 12 |
| E2-L065-VA | L065-1 | Ephemeral | 36.69350 | -79.48312 | 1400.4 | 12 |
| E2-L066-VA | L066-1 | Perennial | 36.68926 | -79.48658 | 1400.1 | 12 |
| E2-L067-VA | L067-1 | Perennial | 36.68939 | -79.48673 | 1400.1 | 12 |
| E2-L068-VA | L068-1 | Ephemeral | 36.55464 | -79.62085 | 1388 | 3 |
| E2-L071-VA | L071-1 | Ephemeral | 36.76696 | -79.40798 | 1407 | 17 |
| E1-L072-VA | L072-1 | Perennial | 36.77304 | -79.39987 | M-0307 1407.60 | 18,19 |
| E2-L073-VA | L073-1 | Ephemeral | 36.76867 | -79.40860 | 1407.1 | 17 |
| | L073-2 | Intermittent | 36.76892 | -79.40870 | 1407.1 | 17 |
| E2-L074-VA | L074-1 | Ephemeral | 36.76963 | -79.40772 | 1407.2 | 18 |
| E1-L075-VA | L075-1 | Perennial | 36.77551 | -79.39981 | M-0307 1407.70 | 18 |
| E2-L076-VA | L076-1 | Intermittent | 36.76050 | -79.41699 | 1406.4 | 17 |
| E1-L077-VA | L077-1 | Ephemeral | 36.77531 | -79.39855 | M-0307 1407.70 | 18 |
| E2-L078-VA | L078-1 | Ephemeral | 36.75713 | -79.41987 | 1406.1 | 17 |
| E1-L079-VA | L079-1 | Ephemeral | 36.75752 | -79.42004 | 1406.1 | 17 |
| E1-L080-VA | L080-1 | Perennial | 36.75445 | -79.42329 | 1405.8 | 16 |
| E1-L081-VA | L081-1 | Perennial | 36.75338 | -79.42324 | 1405.8 | 16 |
| E2-L082-VA | L082-1 | Perennial | 36.75326 | -79.42396 | 1405.7 | 16 |
| E1-L083-VA | L083-1 | Ephemeral | 36.75285 | -79.42456 | 1405.7 | 16 |
| E1-L084-VA | L084-1 | Perennial | 36.82819 | -79.34326 | 1412.7 | 23 |
| E1-L085-VA | L085-1 | Perennial | 36.82922 | -79.34289 | 1412.8 | 23 |
| | L085-2 | Intermittent | 36.82910 | -79.34226 | 1412.8 | 23 |
| E1-L086-VA | L086-1 | Perennial | 36.82809 | -79.34154 | 1412.8 | 23 |

| | | | | | | |
|---|---|---|---|---|---|---|
| E1-L087-VA | L087-1 | Intermittent | 36.82806 | -79.34138 | 1412.8 | 23 |
| E1-L088-VA | L088-1 | Intermittent | 36.78860 | -79.38746 | M-0437 1409.60 | 20 |
| E1-L089-VA | L089-1 | Ephemeral | 36.66801 | -79.50833 | 1398.2 | 10 |
| E3-L090-VA | L090-1 | Intermittent | 36.66838 | -79.50770 | 1398.2 | 10,11 |
| E3-L091-VA | L091-1 | Intermittent | 36.66835 | -79.50796 | 1398.2 | 10 |
| E1-L092-VA | L092-1 | Intermittent | 36.78870 | -79.38602 | M-0437 1409.60 | 20 |
| | L092-2 | Perennial | 36.78836 | -79.38594 | M-0437 1409.50 | 20 |
| E1-L093-VA | L093-1 | Intermittent | 36.78881 | -79.38608 | M-0437 1409.60 | 20 |
| E1-L094-VA | L094-1 | Intermittent | 36.78918 | -79.38614 | M-0437 1409.60 | 20 |
| E3-L095-VA | L095-1 | Perennial | 36.67378 | -79.50236 | 1398.7 | 11 |
| E1-L096-VA | L096-1 | Perennial | 36.78377 | -79.39154 | M-0307 1408.80 | 20 |
| E3-L097-VA | L097-1 | Ephemeral | 36.67385 | -79.50245 | 1398.7 | 11 |
| E1-L098-VA | L098-1 | Perennial | 36.68376 | -79.49516 | 1399.5 | 11,12 |
| E1-L099-VA | L099-1 | Perennial | 36.68196 | -79.49732 | 1399.3 | 11 |
| E1-L100-VA | L100-1 | Perennial | 36.68178 | -79.49760 | 1399.3 | 11 |
| E2-L102-VA | L102-1 | Ephemeral | 36.77775 | -79.38704 | M-0307 1408.70 | 19 |
| E1-L103-VA | L103-1 | Perennial | 36.77940 | -79.38611 | M-0307 1408.80 | 19,20 |
| E1-L104-VA | L104-1 | Perennial | 36.68232 | -79.49330 | 1399.5 | 11,12 |
| E1-L105-VA | L105-1 | Ephemeral | 36.79334 | -79.38219 | 1409.4 | 20 |
| E1-L107-VA | L107-1 | Intermittent | 36.79260 | -79.38159 | 1409.4 | 20 |
| E2-L108-VA | L108-1 | Perennial | 36.78743 | -79.38147 | M-0437 1409.40 | 20 |
| E1-L110-VA | L110-1 | Perennial | 36.80834 | -79.36390 | 1410.9 | 21 |
| E3-L111-VA | L111-1 | Intermittent | 36.74629 | -79.43011 | 1405.1 | 16 |
| E1-L112-VA | L112-1 | Ephemeral | 36.80847 | -79.36392 | 1410.9 | 21 |
| E1-L113-VA | L113-1 | Intermittent | 36.81205 | -79.35983 | 1411.2 | 22 |
| E2-L114-VA | L114-1 | Intermittent | 36.83703 | -79.33535 | 1413.29 | 23 |
| E1-L115-VA | L115-1 | Perennial | 36.81548 | -79.35602 | 1411.5 | 22 |
| E1-L116-VA | L116-1 | Intermittent | 36.81555 | -79.35614 | 1411.5 | 22 |
| E1-L117-VA | L117-1 | Ephemeral | 36.81569 | -79.35624 | 1411.6 | 22 |
| E1-L118-VA | L118-1 | Ephemeral | 36.81615 | -79.35363 | M-0402 1411.70 | 22 |
| E1-L119-VA | L119-1 | Intermittent | 36.82116 | -79.34937 | M-0402 1412.10 | 22 |
| E1-L120-VA | L120-1 | Intermittent | 36.82113 | -79.34933 | M-0402 1412.10 | 22 |
| E1-L121-VA | L121-1 | Perennial | 36.82387 | -79.34778 | M-0312 1412.30 | 22,23 |

| | | | | | | |
|---|---|---|---|---|---|---|
| E1-L122-VA | L122-1 | Intermittent | 36.82380 | -79.34737 | M-0312 1412.40 | 22,23 |
| E1-L123-VA | L123-1 | Intermittent | 36.82399 | -79.34735 | M-0312 1412.40 | 23 |
| E2-L124-VA | L124-1 | Intermittent | 36.55653 | -79.61791 | M-0402 1388.20 | 3 |
| | L124-2 | Perennial | 36.55614 | -79.61755 | M-0402 1388.20 | 3 |
| E1-L125-VA | L125-1 | Perennial | 36.82448 | -79.34655 | M-0312 1412.40 | 23 |
| E2-L126-VA | L126-1 | Intermittent | 36.58698 | -79.58710 | 1391 | 5 |
| | L126-2 | Perennial | 36.58725 | -79.58745 | 1391 | 5 |
| E2-L127-VA | L127-1 | Perennial | 36.58710 | -79.58704 | 1391 | 5 |
| E2-L128-VA | L128-1 | Ephemeral | 36.58594 | -79.58884 | 1390.9 | 5 |
| E2-L129-VA | L129-1 | Intermittent | 36.58561 | -79.58815 | 1390.9 | 5 |
| E2-L130-VA | L130-1 | Intermittent | 36.55642 | -79.61806 | M-0402 1388.20 | 3 |
| E2-L133-VA | L133-1 | Intermittent | 36.55767 | -79.61768 | M-0402 1388.30 | 3 |
| | L133-2 | Ephemeral | 36.55841 | -79.61710 | M-0402 1388.30 | 3 |
| E3-L134-VA | L134-1 | Intermittent | 36.83621 | -79.33367 | 1413.29 | 23 |
| E2-L136-VA | L136-1 | Ephemeral | 36.55771 | -79.61773 | M-0402 1388.30 | 3 |
| E1-L137-VA | L137-1 | Intermittent | 36.55722 | -79.61648 | M-0402 1388.30 | 3 |
| E3-L138-VA | L138-1 | Ephemeral | 36.83562 | -79.33415 | 1413.29 | 23 |
| | L138-2 | Intermittent | 36.83592 | -79.33394 | 1413.29 | 23 |
| E1-L139-VA | L139-1 | Perennial | 36.56585 | -79.60769 | 1389.1 | 3 |
| E2-L140-VA | L140-1 | Intermittent | 36.56068 | -79.61280 | 1388.7 | 3 |
| E1-L141-VA | L141-1 | Ephemeral | 36.56562 | -79.60782 | 1389.1 | 3 |
| E1-L142-VA | L142-1 | Perennial | 36.56732 | -79.60626 | 1389.2 | 3 |
| E2-L144-VA | L144-1 | Intermittent | 36.57040 | -79.60342 | 1389.5 | 4 |
| E1-L145-VA | L145-1 | Ephemeral | 36.75766 | -79.42031 | 1406.1 | 17 |
| E2-L146-VA | L146-1 | Perennial | 36.57402 | -79.59971 | 1389.8 | 4 |
| E2-L148-VA | L148-1 | Ephemeral | 36.57400 | -79.59941 | 1389.9 | 4 |
| E2-L149-VA | L149-1 | Ephemeral | 36.57367 | -79.59993 | 1389.8 | 4 |
| E2-L150-VA | L150-1 | Intermittent | 36.57631 | -79.59722 | 1390 | 4 |
| E2-L151-VA | L151-1 | Ephemeral | 36.57685 | -79.59683 | 1390.1 | 4 |
| E1-L152-VA | L152-1 | Ephemeral | 36.83400 | -79.33288 | 1413.29 | 23 |
| E1-L153-VA | L153-1 | Perennial | 36.83707 | -79.33635 | 1413.29 | 23 |

| | | | | | | |
|---|---|---|---|---|---|---|
| E1-L154-VA | L154-1 | Intermittent | 36.83499 | -79.33280 | 1413.29 | 23 |
| | L154-2 | Perennial | 36.83530 | -79.33276 | 1413.29 | 23 |
| E1-L155-VA | L155-1 | Intermittent | 36.83452 | -79.33290 | 1413.29 | 23 |
| E1-L156-VA | L156-1 | Ephemeral | 36.83466 | -79.33293 | 1413.29 | 23 |
| E2-L157-VA | L157-1 | Ephemeral | 36.83610 | -79.33504 | 1413.29 | 23 |
| E2-L158-VA | L158-1 | Intermittent | 36.83664 | -79.33485 | 1413.29 | 23 |
| E1-L159-VA | L159-1 | Perennial | 36.83625 | -79.33733 | 1413.29 | 23 |
| E2-L160-VA | L160-1 | Ephemeral | 36.83637 | -79.33616 | 1413.29 | 23 |
| E3-L161-VA | L161-1 | Ephemeral | 36.83510 | -79.33801 | 1413.29 | 23 |
| E1-L162-VA | L162-1 | Perennial | 36.74182 | -79.43412 | M-0388 1404.80 | 16 |
| E1-L163-VA | L163-1 | Intermittent | 36.83081 | -79.33841 | 1413 | 23 |
| E1-L164-VA | L164-1 | Perennial | 36.83084 | -79.34127 | 1413 | 23 |
| | L164-2 | Intermittent | 36.83131 | -79.33956 | 1413 | 23 |
| E1-L165-VA | L165-1 | Ephemeral | 36.83156 | -79.34005 | 1413 | 23 |
| E1-L166-VA | L166-1 | Intermittent | 36.83038 | -79.34206 | 1412.9 | 23 |
| E1-L167-VA | L167-1 | Intermittent | 36.77227 | -79.39589 | M-0307 1407.90 | 19 |
| E1-L168-VA | L168-1 | Perennial | 36.77402 | -79.40298 | 1407.4 | 18 |
| E1-L169-VA | L169-1 | Ephemeral | 36.78471 | -79.38024 | M-0437 1409.20 | 20 |
| E1-L171-VA | L171-1 | Ephemeral | 36.74294 | -79.43543 | M-0388 1404.80 | 16 |
| | L171-2 | Perennial | 36.74267 | -79.43517 | M-0388 1404.80 | 16 |
| E1-L173-VA | L173-1 | Ephemeral | 36.74273 | -79.43543 | M-0388 1404.80 | 16 |
| | L173-2 | Perennial | 36.74255 | -79.43526 | M-0388 1404.80 | 16 |
| E1-L174-VA | L174-1 | Perennial | 36.60485 | -79.56292 | 1392.8 | 6 |
| E1-L175-VA | L175-1 | Perennial | 36.60527 | -79.56401 | 1392.8 | 6 |
| E1-L176-VA | L176-1 | Ephemeral | 36.78806 | -79.38218 | M-0437 1409.40 | 20 |
| E1-L177-VA | L177-1 | Perennial | 36.78768 | -79.37997 | M-0437 1409.40 | 20 |
| E1-L178-VA | L178-1 | Perennial | 36.78732 | -79.38027 | M-0437 1409.40 | 20 |
| E1-L179-VA | L179-1 | Intermittent | 36.78749 | -79.37650 | 1409.4 | 20 |
| E1-L180-VA | L180-1 | Perennial | 36.78144 | -79.38913 | M-0307 1408.80 | 19,20 |
| | L180-2 | Ephemeral | 36.78165 | -79.38924 | M-0307 1408.80 | 19,20 |
| E1-L181-VA | L181-1 | Perennial | 36.78149 | -79.38810 | M-0307 1408.80 | 19,20 |

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: March 19, 2024 | **Data Point:** L001-A; Stream L001-1 |
| **Evaluator:** Mike Smith, Kyle Zinn, Lindsey Shortt, Michaela Moss, Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.5444596833333, -79.6303291183333 |
| **Total Points:** 26.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 9** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 9.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 1 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes*: Juncus effusus* in the stream

Sketch: Attachment I; Sheet 2

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: March 20, 2024 | **Data Point:** L002-A; Stream L002-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.5460233333333, -79.628601495 |
| **Total Points:** 33.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 14.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 3 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 9.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 1 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 2

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 30, 2024 | **Data Point:** L003-A; Stream L003-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.552353, -79.622928 |
| **Total Points:** 13.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Ephemeral** | |

| **A. Geomorphology Subtotal = 7** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 2

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: March 21, 2024 | **Data Point:** L004-A; Stream L004-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.5525917916667, -79.6220099766667 |
| **Total Points:** 41.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 20.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 10** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 10.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 3 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 1 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes: Fish, frog observed. *Juncus effusus* in the stream bed.

Sketch: Attachment I; Sheet 2

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: March 26, 2024 | **Data Point:** L006-A; Stream L006-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.6581116672999, -79.5182521872 |
| **Total Points:** 34<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 19.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 10

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 24, 2024 | **Data Point:** L007-A; Stream L007-1 |
| **Evaluator:** Lindsey Shortt, Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.657729, -79.518489 |
| **Total Points:** 40.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 22.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 9.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 10

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 30, 2024 | **Data Point:** L008-A; Stream L008-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.71919, -79.457069 |
| **Total Points:** 18.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Ephemeral** | |

| **A. Geomorphology Subtotal = 10.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 3** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 14

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: March 28, 2024 | **Data Point:** L008-B; Stream L008-2 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.719992765, -79.4571758616667 |
| **Total Points:** 24.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 13** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 3 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 14

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: March 28, 2024 | **Data Point:** L009-A; Stream L009-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.720404, -79.456534 |
| **Total Points:** 40.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 23** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 14

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: March 28, 2024 | **Data Point:** L010-A; Stream L010-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.722401275, -79.4548831833333 |
| **Total Points:** 32.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 17.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 14

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: March 28, 2024 | **Data Point:** L011-A; Stream L011-1 |
| **Evaluator:** Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.7202108233333, -79.4570353216667 |
| **Total Points:** 28<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 14.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 14

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 3, 2024 | **Data Point:** L012-A; Stream L012-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.7291544976, -79.4465775911999 |
| **Total Points:** 36.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 16.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 10.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 3 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 15

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 3, 2024 | **Data Point:** L013-A; Stream L013-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.7350438769, -79.4412466970999 |
| **Total Points:** 31.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 14** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 15

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 3, 2024 | **Data Point:** L014-A; Stream L014-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.734838155, -79.4414506583333 |
| **Total Points:** 35.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 17.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 3 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 9.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 15

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 4, 2024 and January 10, 2025 | **Data Point:** L015-A; Stream L015-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss, Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.6553966116667, -79.5191844866667 |
| **Total Points:** 23<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Intermittent** | |

| **A. Geomorphology Subtotal = 12.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a] Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 10. This reach was updated as a result of additional fieldwork conducted on January 10, 2025.

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 16, 2024 | **Data Point:** L016-A; Stream L016-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.6028840416667, -79.5674016716667 |
| **Total Points:** 34.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 17.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 6

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 16, 2024 | **Data Point:** L017-A; Stream L017-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.6029250858, -79.5673858865999 |
| **Total Points:** 31.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 12** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 10** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 9.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 3 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 6

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 30, 2024 | **Data Point:** L018-A; Stream L018-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt, Michaela Moss, Alex Bailey | **County:** Pittsylvania County | **Lat/Long:** 36.632955, -79.544147 |
| **Total Points:** 9.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Ephemeral** | |

| **A. Geomorphology Subtotal = 4** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 8

# NC DWQ Stream Identification Form Version 4.11

| | | | | | |
|---|---|---|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 30, 2024 | | **Data Point:** L018-B; Stream L018-2 | | |
| **Evaluator:** Kyle Zinn, Lindsey Shortt, Michaela Moss, Alex Bailey | **County:** Pittsylvania County | | **Lat/Long:** 36.6330791281, -79.544251571 | | |
| **Total Points:** 25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Intermittent** | | | | |
| **A. Geomorphology Subtotal = 15** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 3 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |
| [a] artificial ditches are not rated; see discussions in manual | | | | | |
| **B. Hydrology Subtotal = 5** | | | | | |
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |
| **C. Biology Subtotal = 5** | | | | | |
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 8

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 8, 2024; Updated June 2, 2025 | **Data Point:** L019-A; Stream L019-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.63364012, -79.542989275 |
| **Total Points:** 29<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Intermittent** | |

| **A. Geomorphology Subtotal = 15** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 8

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 8, 2024 | **Data Point:** L020-A; Stream L020-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.633843, -79.542757 |
| **Total Points:** 9.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 0.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 8

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 9, 2024 | **Data Point:** L021-A; Stream L021-1 (Sandy River) |
| **Evaluator:** Mike Smith, Alex Bailey | **County:** Pittsylvania County | **Lat/Long:** 36.635899, -79.5403848 |
| **Total Points:** 39.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 19.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 10.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 1 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 1 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 8

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 9, 2024 | **Data Point:** L022-A; Stream L022-1 (Hardys Creek) |
| **Evaluator:** Mike Smith, Kyle Zinn, Alex Bailey | **County:** Pittsylvania County | **Lat/Long:** 36.6362338508999, -79.5410324479999 |
| **Total Points:** 43.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 24.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 3 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 9.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 8

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 30, 2024 | **Data Point:** L024-A; Stream L024-2 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.638125, -79.537048 |
| **Total Points:** 12<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 6** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 8

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 24, 2024 | **Data Point:** L024-B; Stream L024-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.63741382, -79.5377292466667 |
| **Total Points:** 24.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Intermittent** | |

| **A. Geomorphology Subtotal = 12.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 3 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 8

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 24, 2024 | **Data Point:** L024-C; Stream L024-3 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.63653745, -79.5386006783333 |
| **Total Points:** 32<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 17** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 3 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 1 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 8

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 24, 2024 | **Data Point:** L025-A; Stream L025-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.6374475766667, -79.53758986333 |
| **Total Points:** 19.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 8** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 8

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 24, 2024 | **Data Point:** L025-B; Stream L025-2 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.6375409933333, -79.537446395 |
| **Total Points:** 10<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 4.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a] Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 8

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 15, 2024 | **Data Point:** L027-A; Stream L027-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.5874885716667, -79.5864818033333 |
| **Total Points:** 25.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 10.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 1 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 5

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 30, 2024 | **Data Point:** L028-A; Stream L028-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.589218, -79.585525 |
| **Total Points:** 10.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 5

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 15, 2024 | **Data Point:** L029-A; Stream L029-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.5904842583678, -79.5837419301176 |
| **Total Points:** 21.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 10** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 5.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 5

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 15, 2024 | **Data Point:** L029-B; Stream L029-2 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.5905456799, -79.5840118770999 |
| **Total Points:** 32.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 15.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 9.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 5

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 30, 2024 | **Data Point:** L030-A; Stream L030-1 |
| **Evaluator:** Mike Smith, Kyle Zinn, Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.594221, -79.579786 |
| **Total Points:** 15<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Ephemeral** | |

| **A. Geomorphology Subtotal = 9** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 5

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 15, 2024 | **Data Point:** L030-B; Stream L030-2 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.594240825, -79.57981094 |
| **Total Points:** 27.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 13** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 5

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 9, 2024 | **Data Point:** L031-A; Stream L031-1 |
| **Evaluator:** Mike Smith, Alex Bailey | **County:** Pittsylvania County | **Lat/Long:** 36.6537914833333, -79.5209267033333 |
| **Total Points:** 34<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 16.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheets 9 and 10

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 9, 2024 | **Data Point:** L032-A; Stream L032-1 |
| **Evaluator:** Mike Smith, Kyle Zinn, Alex Bailey | **County:** Pittsylvania County | **Lat/Long:** 36.652180915, -79.52238462 |
| **Total Points:** 32.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 16.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 9.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 9

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 16, 2024 | **Data Point:** L033-A; Stream L033-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.6068073933333, -79.568417095 |
| **Total Points:** 36.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 17.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 3 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 10.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 3 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 6

# NC DWQ Stream Identification Form Version 4.11

| | | | | | |
|---|---|---|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 16, 2024 | | **Data Point:** L034-A; Stream L034-1 | | |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | | **Lat/Long:** 36.6067, -79.5683 | | |
| **Total Points:** 31.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | | | | |
| **A. Geomorphology Subtotal = 14.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |
| [a] artificial ditches are not rated; see discussions in manual | | | | | |
| **B. Hydrology Subtotal = 9** | | | | | |
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |
| **C. Biology Subtotal = 8.25** | | | | | |
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 3 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 1 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 6

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 16, 2024 | **Data Point:** L035-A; Stream L035-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.6082065761964, -79.5673254347749 |
| **Total Points:** 10.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 4.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 6

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 17, 2024 | **Data Point:** L036-A; Stream L036-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.603478635, -79.5706408683333 |
| **Total Points:** 39.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 20** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 10.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 1 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 6

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 25, 2024 | **Data Point:** L038-A; Stream L038-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.599298, -79.57459 |
| **Total Points:** 13<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 7** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 6

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 17, 2024 | **Data Point:** L039-A; Stream L039-2 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.6019094915, -79.566829752 |
| **Total Points:** 23.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 9.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 6

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 26, 2024 | **Data Point:** L039-B; Stream L039-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.6019313524, -79.566932564 |
| **Total Points:** 13.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 7.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 3.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 6

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 18, 2024 | **Data Point:** L040-A; Stream L040-1 |
| **Evaluator:** Lindsey Shortt, Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.5959995529999, -79.5776436772 |
| **Total Points:** 37.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 21.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 3 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 1 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 5

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 18, 2024 | **Data Point:** L041-A; Stream L041-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.5960241666667, -79.5774610883333 |
| **Total Points:** 27<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 12** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 5

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 22, 2024 | **Data Point:** L042-A; Stream L042-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.6139600633333, -79.5619911016667 |
| **Total Points:** 38.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 22.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 3 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 10** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 1 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 7

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 22, 2024 | **Data Point:** L043-A; Stream L043-2 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.6172729016667, -79.5596898583333 |
| **Total Points:** 26.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 11** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 7

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 30, 2024 | **Data Point:** L043-B; Stream L043-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.6175425544116, -79.559930439017 |
| **Total Points:** 15<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 7.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 7

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 23, 2024 | **Data Point:** L044-A; Stream L044-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.6242403250531, -79.5530387652284 |
| **Total Points:** 20<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 10.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 5.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 7

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 23, 2024 | **Data Point:** L045-A; Stream L045-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.6283538639, -79.5485102322 |
| **Total Points:** 22.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 11** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 8

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: August 15, 2024 | **Data Point:** L046-A; Stream L046-1 |
| **Evaluator:** Lindsey Shortt, Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.6387707, -79.5379373 |
| **Total Points:** 23.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Intermittent** | |

| **A. Geomorphology Subtotal = 11** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 8

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 26, 2024 | **Data Point:** L047-A; Stream L047-1 |
| **Evaluator:** Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.6380351876999, -79.5369527880999 |
| **Total Points:** 9<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 3** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 8

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 29, 2024 | **Data Point:** L050-A; Stream L050-3 |
| **Evaluator:** Mike Smith, Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.6413565986019, -79.533682240739 |
| **Total Points:** 22<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 11.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 5.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 9

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 29, 2024 | **Data Point:** L050-B; Stream L050-2 |
| **Evaluator:** Lindsey Shortt, Mike Smith | **County:** Pittsylvania County | **Lat/Long:** 36.641087998474, -79.53374970971 |
| **Total Points:** 10.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 9

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 29, 2024 | **Data Point:** L050-C; Stream L050-1 |
| **Evaluator:** Mike Smith, Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.6409799285, -79.5337836204 |
| **Total Points:** 23<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 12.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 5.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 9

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 29, 2024 | **Data Point:** L051-A; Stream L051-1 |
| **Evaluator:** Lindsey Shortt, Mike Smith | **County:** Pittsylvania County | **Lat/Long:** 36.641936885, -79.5339129616667 |
| **Total Points:** 21<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 12** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 9

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 30, 2024 | **Data Point:** L052-A; Stream L052-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.642479865, -79.5321142533333 |
| **Total Points:** 31.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 15** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 9

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 30, 2024 | **Data Point:** L053-A; Stream L053-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.6427883116667, -79.531936845 |
| **Total Points:** 24.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 9.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 9

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 30, 2024 | **Data Point:** L054-A; Stream L054-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.6431389690783, -79.5316386099341 |
| **Total Points:** 24.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 11.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 9

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 30, 2024 | **Data Point:** L055-A; Stream L055-1 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.7173581017465, -79.4597410096391 |
| **Total Points:** 13.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 6.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 14

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 30, 2024 | **Data Point:** L056-A; Stream L056-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.6427994635, -79.5320308333 |
| **Total Points:** 9.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 4** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 0 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 9

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: April 30, 2024 | **Data Point:** L058-A; Stream L058-1 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.7080243604, -79.4683320846999 |
| **Total Points:** 39.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 22** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 3 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 9.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 13

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 1, 2024 | **Data Point:** L059-A; Stream L059-1 |
| **Evaluator:** Lindsey Shortt, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.651855, -79.522234 |
| **Total Points:** 21.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 7** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 9

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 1, 2024 | **Data Point:** L060-A; Stream L060-1 |
| **Evaluator:** Michaela Moss, Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.7063049416667, -79.4700660283333 |
| **Total Points:** 37.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 20.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 1.5 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 13

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 2, 2024 | **Data Point:** L061-A; Stream L061-1 |
| **Evaluator:** Michaela Moss, Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.7022624652, -79.4737825905999 |
| **Total Points:** 34.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 16.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 10** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 1 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 1 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 13

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 1, 2024 | **Data Point:** L062-A; Stream L062-1 |
| **Evaluator:** Mike Smith, Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.6991057076999, -79.476871110199 |
| **Total Points:** 32.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 16** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 13

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 3, 2024 | **Data Point:** L063-A; Stream L063-1 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.693587085, -79.483064753333 |
| **Total Points:** 12<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 5.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 12

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 3, 2024 | **Data Point:** L064-A; Stream L064-1 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.6934746194689, -79.483174351226 |
| **Total Points:** 11.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 7** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 0.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 12

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 3, 2024 | **Data Point:** L065-A; Stream L065-1 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.6935090166667, -79.48309759 |
| **Total Points:** 10<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 6** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 0** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 12

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 3, 2024 | **Data Point:** L067-A; Stream L067-1 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.689359015, -79.486583465 |
| **Total Points:** 41<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 21.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 11** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 1 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 12

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 4, 2024 | **Data Point:** L068-A; Stream L068-1 |
| **Evaluator:** Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.554638165, -79.6208418983333 |
| **Total Points:** 13<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 6** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 3

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 7, 2024 | **Data Point:** L071-A; Stream L071-1 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.766950943339, -79.408027093914 |
| **Total Points:** 14<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 9.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 0.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 17

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 8, 2024 | **Data Point:** L073-A; Stream L073-1 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.7687056591654, -79.408620735347 |
| **Total Points:** 9<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 3** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 0 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 17

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 8, 2024 | **Data Point:** L073-B; Stream L073-2 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.7689172883333, -79.408698593333 |
| **Total Points:** 27.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 13.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 17

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 8, 2024 | **Data Point:** L074-A; Stream L074-1 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.7696407483333, -79.407782536666 |
| **Total Points:** 12.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 8.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 0 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 18

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 14, 2024 | **Data Point:** L075-A; Stream L075-1 |
| **Evaluator:** Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.7755066816, -79.3998051386 |
| **Total Points:** 36<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 16** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 3 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 11** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 9** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 18

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 9, 2024 | **Data Point:** L076-A; Stream L076-1 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.7604879283333, -79.416974516666 |
| **Total Points:** 23<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 11.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 17

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 9, 2024 | **Data Point:** L077-A; Stream L077-1 |
| **Evaluator:** Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.7753193016667, -79.398527725 |
| **Total Points:** 11<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 7** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 3** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 0 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 18

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 10, 2024 | **Data Point:** L078-A; Stream L078-1 |
| **Evaluator:** Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.7570722251634, -79.419798408621 |
| **Total Points:** 11.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 5.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 1 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 17

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 31, 2024 | **Data Point:** L079-A; Stream L079-1 |
| **Evaluator:** Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.757615, -79.420257 |
| **Total Points:** 15<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Ephemeral** | |

| **A. Geomorphology Subtotal = 9** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 17

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 10, 2024 and January 9, 2025 | **Data Point:** L080-A; Stream L080-1 |
| **Evaluator:** Kyle Zinn, Mike Smith | **County:** Pittsylvania County | **Lat/Long:** 36.7544541414999, -79.4232926387 |
| **Total Points:** 30.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 13** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 16. This reach was updated as a result of additional fieldwork conducted on January 9, 2025.

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 31, 2024 | **Data Point:** L081-A; Stream L081-1 |
| **Evaluator:** Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.7533802875071, -79.423244336682 |
| **Total Points:** 30.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 13** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 10.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 16.

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 10, 2024 | **Data Point:** L082-A; Stream L082-1 |
| **Evaluator:** Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.7531840266667, -79.423574658333 |
| **Total Points:** 39.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 21.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 16

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 10, 2024 | **Data Point:** L083-A; Stream L083-1 |
| **Evaluator:** Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.7531037486856, -79.424588880426 |
| **Total Points:** 13.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 7.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 16

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 29, 2024 | **Data Point:** L084-A; Stream L084-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8281825283333, -79.343003675 |
| **Total Points:** 30.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 14.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 29, 2024 and February 24, 2025 | **Data Point:** L085-A; Stream L085-1 |
| **Evaluator:** Mike Smith | **County:** Pittsylvania County | **Lat/Long:** 36.82921034333, -79.3431089833 |
| **Total Points:** 31<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 14.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a] Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 1 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 29, 2024 | **Data Point:** L085-B, Stream L085-2 |
| **Evaluator:** Mike Smith | **County:** Pittsylvania County | **Lat/Long:** 36.8291814919032, -79.342429954502 |
| **Total Points:** 28<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 13.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 31, 2024 | **Data Point:** L086-A; Stream L086-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.82804692, -79.3414552 |
| **Total Points:** 33.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 16.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 9.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 31, 2024 | **Data Point:** L087-A; Stream L087-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8280621866169, -79.341385191007 |
| **Total Points:** 21.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 10.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 13, 2024 | **Data Point:** L088-A; Stream L088-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.7886662889645, -79.387025497945 |
| **Total Points:** 22.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 9.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 13, 2024 | **Data Point:** L089-A; Stream L089-1 |
| **Evaluator:** Michaela Moss, Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.66810007, -79.508156558333 |
| **Total Points:** 13<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 9** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 1 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 10

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 31, 2024; Updated June 2, 2025 | **Data Point:** L090-A; Stream L090-1 |
| **Evaluator:** Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.6683845411999, -79.5076975849 |
| **Total Points:** 28.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 14** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheets 10 and 11

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 13, 2024 | **Data Point:** L091-A; Stream L091-1 |
| **Evaluator:** Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.6683775116764, -79.507928785204 |
| **Total Points:** 27.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 12** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 10

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 13, 2024 | **Data Point:** L092-A; Stream L092-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.7886197483333, -79.3859842516667 |
| **Total Points:** 25.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 13** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 13, 2024 and March 31, 2025 | **Data Point:** L092-B; Stream L092-2 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.7883628255999, -79.385939088499 |
| **Total Points:** 37.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 20.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 13, 2024 | **Data Point:** L093-A; Stream L093-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.7888130859331, -79.386086454098 |
| **Total Points:** 24<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 12.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 3 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 13, 2024 | **Data Point:** L094-A; Stream L094-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.7891773071999, -79.3861399996 |
| **Total Points:** 21.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 8** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 13, 2024 | **Data Point:** L095-A; Stream L095-1 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.673775956, -79.50236223829 |
| **Total Points:** 41.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 22** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 3 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 11.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 11

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 13, 2024 | **Data Point:** L096-A; Stream L096-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.7837698083333, -79.3915702283333 |
| **Total Points:** 30.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 18** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 13, 2024 | **Data Point:** L097-A; Stream L097-1 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.6738781093547, -79.5024611874659 |
| **Total Points:** 13<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 7.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 11

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 13, 2024 | **Data Point:** L098-A; Stream L098-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.6838396816667, -79.49536736 |
| **Total Points:** 34.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 16.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 10.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 1 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheets 11 and 12

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 13, 2024 | **Data Point:** L099-A; Stream L099-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.6819470016667, -79.49724795 |
| **Total Points:** 33.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 19** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 11

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 13, 2024 | **Data Point:** L100-A; Stream L100-1 |
| **Evaluator:** Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.6817823081999, -79.4975991158 |
| **Total Points:** 33.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 17** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 11

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 14, 2024 | **Data Point:** L101-A; Stream L101-1 |
| **Evaluator:** Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.777681, -79.386905 |
| **Total Points:** 9.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Ephemeral** | |

| **A. Geomorphology Subtotal = 5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 0.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 19

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 14, 2024 | **Data Point:** L102-A; Stream L102-1 |
| **Evaluator:** Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.777754, -79.387104 |
| **Total Points:** 9.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Ephemeral** | |

| **A. Geomorphology Subtotal = 4.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 19

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 15, 2024 | **Data Point:** L104-A; Stream L104-1 |
| **Evaluator:** Michaela Moss, Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.6823935783333, -79.493325345 |
| **Total Points:** 45.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 24** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 3 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 12.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 3 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 2 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheets 11 and 12

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 15, 2024 | **Data Point:** L105-A; Stream L105-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.7933588116667, -79.382200841666 |
| **Total Points:** 11<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 6.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 3** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 15, 2024 | **Data Point:** L107-A; Stream L107-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.7926024363, -79.3815942427 |
| **Total Points:** 23.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 12** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 4.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 15, 2024 | **Data Point:** L108-A; Stream L108-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.7874320532, -79.38147379 |
| **Total Points:** 34.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 17.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 15, 2024 | **Data Point:** L109-A; Stream L109-1 |
| **Evaluator:** Mike Smith, Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.787411, -79.381993 |
| **Total Points:** 20<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 12.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 15, 2024 | **Data Point:** L111-A; Stream L111-1 |
| **Evaluator:** Michaela Moss, Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.7464306533333, -79.4303082466667 |
| **Total Points:** 28.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 12.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 3 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 16

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 16, 2024 | **Data Point:** L112-A; Stream L112-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8085736316667, -79.364004956667 |
| **Total Points:** 11<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 21

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 16, 2024 | **Data Point:** L113-A; Stream L113-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8118596283333, -79.35974831 |
| **Total Points:** 24.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 10.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 22

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 23, 2024 | **Data Point:** L114-A; Stream L114-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8370935633, -79.335363891 |
| **Total Points:** 26.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 12.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 16, 2024 | **Data Point:** L115-A; Stream L115-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8155745483333, -79.3560893383333 |
| **Total Points:** 34.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 18** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 3 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 9.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 1 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 22

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 16, 2024 | **Data Point:** L116-A; Stream L116-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.815552163, -79.3561403910999 |
| **Total Points:** 23<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 10** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 1 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 22

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 16, 2024 | **Data Point:** L117-A; Stream L117-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8156840612646, -79.3562338419677 |
| **Total Points:** 10<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 4.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 22

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 16, 2024 | **Data Point:** L118-A; Stream L118-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8161021233333, -79.3534442366667 |
| **Total Points:** 12.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 5.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 3** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 22

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 17, 2024 | **Data Point:** L119-A; Stream L119-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8217063883333, -79.3501715283333 |
| **Total Points:** 27<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 10.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 22

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 17, 2024 | **Data Point:** L120-A; Stream L120-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8211334683682, -79.3493257011804 |
| **Total Points:** 22.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 10.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 22

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 20, 2024 | **Data Point:** L122-A; Stream L122-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8240187440038, -79.3471635201617 |
| **Total Points:** 22.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 9** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheets 22 and 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 20, 2024 | **Data Point:** L123-A; Stream L123-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8239401216667, -79.3473272966667 |
| **Total Points:** 26.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 11.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 21, 2024 | **Data Point:** L124-A; Stream L124-1 |
| **Evaluator:** Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.5565258850499, -79.617910297538 |
| **Total Points:** 26.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 11** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 3

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 20, 2024 | **Data Point:** L124-B; Stream L124-2 |
| **Evaluator:** Lindsey Shortt, Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.5563367, -79.6178398 |
| **Total Points:** 32.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 16** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 3

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 20, 2024 | **Data Point:** L125-A; Stream L125-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.824375, -79.3466633 |
| **Total Points:** 31<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 15** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 20, 2024 | **Data Point:** L126-A; Stream L126-1 |
| **Evaluator:** Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.5869821236, -79.587097690 |
| **Total Points:** 21.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 7.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 5

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: February 24, 2025 | **Data Point:** L126-B; Stream L126-2 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.5872513897, -79.587452521 |
| **Total Points:** 35.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 19** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 5

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: February 26, 2025 | **Data Point:** L127-A; Stream L127-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.5870976438, -79.587042183 |
| **Total Points:** 34.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Perennial | |

| **A. Geomorphology Subtotal = 15** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 11** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 1 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 5

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 31, 2024 | **Data Point:** L128-A; Stream L128-1 |
| **Evaluator:** Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.5859543763974, -79.588864075836 |
| **Total Points:** 14<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 8** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 5

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 31, 2024 | **Data Point:** L129-A; Stream L129-1 |
| **Evaluator:** Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.5856025008455, -79.588148277207 |
| **Total Points:** 19.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 8** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 5

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 20, 2024 and January 14, 2025 | **Data Point:** L130-A; Stream L130-1 |
| **Evaluator:** Lindsey Shortt, Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.5563437035104, -79.617964867261 |
| **Total Points:** 24.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Intermittent** | |

| **A. Geomorphology Subtotal = 9** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 1 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 3. This reach was updated as a result of additional fieldwork conducted on January 14, 2025.

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: November 19, 2024 | **Data Point:** L133-A; Stream L133-2 |
| **Evaluator:** Jen Feese, Mike Smith, Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.5584099471, -79.617104521599 |
| **Total Points:** 13.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 6** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 5.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 3. Although flow was observed during the May 2024 delineation fieldwork, no flow was observed during the November 19, 2024, DEQ SSWD site visit. Per DEQ's request, a re-evaluation of this stream reach was conducted and resulted in lower scores and an ephemeral designation.

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: November 19, 2024 | **Data Point:** L133-B; Stream L133-1 |
| **Evaluator:** Jen Feese, Mike Smith, Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.557778628856, -79.61765951663 |
| **Total Points:** 20.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 10** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 3. Although flow was observed during the May 2024 delineation fieldwork, no flow was observed during the November 19, 2024, DEQ SSWD site visit. Per DEQ's request, a re-evaluation of this stream reach was conducted and resulted in lower scores and an intermittent designation.

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 21, 2024 | **Data Point:** L134-A; Stream L134-1 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.8363220513925, -79.3336472338825 |
| **Total Points:** 27.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 13.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 21, 2024 | **Data Point:** L136-A; Stream L136-1 |
| **Evaluator:** Lindsey Shortt, Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.5577062789038, -79.617729636001 |
| **Total Points:** 9<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 2.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 0 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 3

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 21, 2024; Updated June 2, 2025 | **Data Point:** L137-A; Stream L137-1 |
| **Evaluator:** Lindsey Shortt, Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.5572265566838, -79.616479789734 |
| **Total Points:** 27.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 10** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 3

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 21, 2024 | **Data Point:** L138-A; Stream L138-2 |
| **Evaluator:** Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.8358074183333, -79.33400346 |
| **Total Points:** 28<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 14** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23.

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: November 20, 2024 | **Data Point:** L138-B; Stream L138-1 |
| **Evaluator:** Jen Feese, Mike Smith | **County:** Pittsylvania County | **Lat/Long:** 36.8356192492, -79.334154384 |
| **Total Points:** 11.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23. During the DEQ SSWD site visit on November 20, 2024, DEQ determined that this portion of Stream L138 was ephemeral.

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 21, 2024 | **Data Point:** L139-A; Stream L139-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.5658171369952, -79.607535994418 |
| **Total Points:** 31.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 15** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 3 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 10.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 3

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 21, 2024 | **Data Point:** L140-A; Stream L140-1 |
| **Evaluator:** Lindsey Shortt, Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.560548, -79.612656 |
| **Total Points:** 25.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 9** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 3

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 21, 2024 | **Data Point:** L141-A; Stream L141-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.5655945116255, -79.607868336310 |
| **Total Points:** 11.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 6** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 3** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 3

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 21, 2024 | **Data Point:** L142-A; Stream L142-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.567182, -79.605992 |
| **Total Points:** 33.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 15** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 9.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 3

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 22, 2024 | **Data Point:** L144-A; Stream L144-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.570107, -79.603047 |
| **Total Points:** 23.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Intermittent** | |

| **A. Geomorphology Subtotal = 8** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 4

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 22, 2024 | **Data Point:** L145-A; Stream L145-1 |
| **Evaluator:** Linsday Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.7576558812, -79.420310611 |
| **Total Points:** 15<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 7.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 17

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 22, 2024 | **Data Point:** L148-A; Stream L148-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.5740621067662, -79.599288574078 |
| **Total Points:** 10.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 3** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 4

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 22, 2024 | **Data Point:** L149-A; Stream L149-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.5736660291192, -79.599937833990 |
| **Total Points:** 12<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 4** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 4

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: June 4, 2024 | **Data Point:** L150-A; Stream L150-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.576384340624, -79.59723800930 |
| **Total Points:** 22.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 10** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 4

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 22, 2024; November 20, 2024 | **Data Point:** L151-A; Stream L151-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.5773833882821, -79.596457677471 |
| **Total Points:** 15<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 7.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 3** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 4 Per the November 20, 2024 DEQ SSWD site visit, DEQ determined that all of Stream Reach 151 was ephemeral. This stream assessment was updated during the November 2024 fieldwork.

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 23, 2024 | **Data Point:** L152-A; Stream L152-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8340140774223, -79.3328771834001 |
| **Total Points:** 10.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 3.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 1 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 23, 2024 | **Data Point:** L153-A; Stream L153-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.837176, -79.336913 |
| **Total Points:** 33.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 16** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 23, 2024 | **Data Point:** L154-A; Stream L154-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.834944878407, -79.3328229318172 |
| **Total Points:** 23<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 12** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 23, 2024 | **Data Point:** L154-B; Stream L154-2 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8353003695999, -79.3327561149999 |
| **Total Points:** 33.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 18** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 23, 2024 | **Data Point:** L155-A; Stream L155-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8344746079725, -79.3329281553377 |
| **Total Points:** 24.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 8.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 23, 2024 | **Data Point:** L156-A; Stream L156-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8346830100561, -79.3329414239001 |
| **Total Points:** 12<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 6.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 23, 2024 | **Data Point:** L157-A; Stream L157-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8361042882614, -79.3350361278423 |
| **Total Points:** 11<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 3.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 0 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 23, 2024 | **Data Point:** L158-A; Stream L158-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8366537067742, -79.3348394321619 |
| **Total Points:** 24.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 9** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 23, 2024 | **Data Point:** L159-A; Stream L159-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8362492454999, -79.3373335073 |
| **Total Points:** 34.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 17.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: June 24, 2023 | **Data Point:** L160-A; Stream L160-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8365741171454, -79.336135268016 |
| **Total Points:** 10.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 4.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 4** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 24, 2024 | **Data Point:** L161-A; Stream L161-1 |
| **Evaluator:** Michaela Moss | **County:** Pittsylvania County | **Lat/Long:** 36.8350164616667, -79.337962025 |
| **Total Points:** 17<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 11** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 3** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 3** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 1 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 30, 2024 | **Data Point:** L162-A; Stream L162-1 |
| **Evaluator:** Michaela Moss, Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.7415654566667, -79.4340221566667 |
| **Total Points:** 40.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 16.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 3 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 3 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 13** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 3 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 11** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 1 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 1.5 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 16

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 30, 2024 | **Data Point:** L163-A; Stream L163-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8307099097192, -79.338266126514 |
| **Total Points:** 24.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Intermittent** | |

| **A. Geomorphology Subtotal = 8.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 31, 2024 | **Data Point:** L164-A; Stream L164-2 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.83130786, -79.339490705 |
| **Total Points:** 20.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Intermittent** | |

| **A. Geomorphology Subtotal = 9** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 31, 2024 | **Data Point:** L164-B; Stream L164-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8305816266667, -79.3419725883333 |
| **Total Points:** 35.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 18** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 30, 2024 | **Data Point:** L165-A; Stream L165-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8315618408468, -79.3400456315214 |
| **Total Points:** 11.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 6** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 3** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: May 31, 2024 | **Data Point:** L166-A; Stream L166-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.8303808189343, -79.3420803853858 |
| **Total Points:** 23<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 12** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 2 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 1 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 23

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: August 13, 2024 | **Data Point:** L167-A; Stream L167-1 |
| **Evaluator:** Kyle Zinn, Mike Smith | **County:** Pittsylvania County | **Lat/Long:** 36.772269866667, -79.39589436541 |
| **Total Points:** 28.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 13.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 7.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 19

## NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: August 19, 2024 | **Data Point:** L169-A; Stream L169-1 |
| **Evaluator:** Lindsey Shortt, Kyle Zinn | **County:** Pittsylvania County | **Lat/Long**: 36.784765354132, -79.380211383333 |
| **Total Points:** 9.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Ephemeral** | |

| **A. Geomorphology Subtotal = 6** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 1 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20.

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: October 8, 2024 | **Data Point:** L171-A; Stream L171-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.742968, -79.435464 |
| **Total Points:** 9.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 5.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 0 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 3** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 2 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 16

# NC DWQ Stream Identification Form Version 4.11

| | | | | | |
|---|---|---|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: October 8, 2024 | | **Data Point:** L171-B; Stream L171-2 | | |
| **Evaluator:** Kyle Zinn, Lindsey Shortt | **County:** Pittsylvania County | | **Lat/Long:** 36.742741, -79.435230 | | |
| **Total Points:** 32<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | | | | |
| **A. Geomorphology Subtotal = 12.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 0 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 0 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |
| [a] artificial ditches are not rated; see discussions in manual | | | | | |
| **B. Hydrology Subtotal = 11** | | | | | |
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 3 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |
| **C. Biology Subtotal = 8.5** | | | | | |
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 1 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 1.5 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 16

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: October 8, 2024 | **Data Point:** L173-A; Stream L173-1 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.742758, -79.435451 |
| **Total Points:** 12<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Ephemeral** | |

| **A. Geomorphology Subtotal = 8.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 1.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 0.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 1 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 16

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: October 8, 2024 | **Data Point:** L173-B; Stream L173-2 |
| **Evaluator:** Kyle Zinn, Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.742587, -79.435305 |
| **Total Points:** 37<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** **Perennial** | |

| **A. Geomorphology Subtotal = 16** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 12.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 3 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.5** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 1.5 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 16

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: October 9, 2024 | **Data Point:** L174-A; Stream L174-1 |
| **Evaluator:** Lindsey Shortt, Kyle Zinn | **County:** Pittsylvania County | **Lat/Long:** 36.604842, -79.562934 |
| **Total Points:** 33.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 16** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9.5** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.25** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 6

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: October 9, 2024 | **Data Point:** L175-A; Stream L175-1 |
| **Evaluator:** Lindsey Shortt, Kyle Zinn | **County:** Pittsylvania County | Lat/Long: 36.605295, -79.564022 |
| **Total Points:** 36.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 18** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 3 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 1 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 10** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 6

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: October 15, 2024 | **Data Point:** L176-A; Stream L176-1 |
| **Evaluator:** Mike Smith, Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.78805567, -79.3821944 |
| **Total Points:** 14<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Ephemeral | |

| **A. Geomorphology Subtotal = 6** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 0 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 0 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 2** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |

| **C. Biology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: October 15, 2024 | **Data Point:** L177-A; Stream L177-1 |
| **Evaluator:** Mike Smith, Jen Feese | **County:** Pittsylvania County | **Lat/Long:** 36.7876811, -79.3799682 |
| **Total Points:** 37.75<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 19** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 2 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 10** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 8.75** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 2 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20

# NC DWQ Stream Identification Form Version 4.11

| | | | | | |
|---|---|---|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: October 15, 2024 | | **Data Point:** L178-A; Stream L178-1 | | |
| **Evaluator:** Mike Smith, Jen Feese | **County:** Pittsylvania County | | **Lat/Long:** 36.7873190, -79.3802733 | | |
| **Total Points:** 36.25<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | | | | |
| **A. Geomorphology Subtotal = 19** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 3 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 3 |
| [a] artificial ditches are not rated; see discussions in manual | | | | | |
| **B. Hydrology Subtotal = 9.5** | | | | | |
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 2 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 1 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |
| **C. Biology Subtotal = 7.75** | | | | | |
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 1 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0.75 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: October 15, 2024 | **Data Point:** L179-A; Stream L179-1 |
| **Evaluator:** Lindsey Shortt | **County:** Pittsylvania County | **Lat/Long:** 36.7874925, -79.3764960 |
| **Total Points:** 22<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination:** Intermittent | |

| **A. Geomorphology Subtotal = 9** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 2 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 0 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 1 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 1 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 1 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 1 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 7** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 2 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 2 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 1 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheet 20

# NC DWQ Stream Identification Form Version 4.11

| | | | | | |
|---|---|---|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: October 29, 2024 | | **Data Point:** L180-A; Stream L180-2 | | |
| **Evaluator:** Mike Smith | **County:** Pittsylvania County | | **Lat/Long:** 36.7816532, -79.3892398 | | |
| **Total Points:** 13.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Ephemeral** | | | | |
| **A. Geomorphology Subtotal = 6.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 1 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 1 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 0 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 1 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 0 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 2 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 0 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 3** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 0 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 0 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 1.5 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 0 |
| **C. Biology Subtotal = 4** | | | | | |
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 1 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheets 19 and 20

# NC DWQ Stream Identification Form Version 4.11

| | | |
|---|---|---|
| **Project/Site:** Southeast Supply Enhancement Project | **Date**: October 30, 2024 | **Data Point:** L180-B; Stream L180-1 |
| **Evaluator:** Mike Smith | **County:** Pittsylvania County | **Lat/Long:** 36.7814406, -79.3891340 |
| **Total Points:** 31.5<br>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* | **Stream Determination: Perennial** | |

| **A. Geomorphology Subtotal = 16.5** | **Absent** | **Weak** | **Moderate** | **Strong** | Score |
|---|---|---|---|---|---|
| 1[a]. Continuity of channel bed and bank | 0 | 1 | 2 | 3 | 3 |
| 2. Sinuosity of channel along thalweg | 0 | 1 | 2 | 3 | 2 |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0 | 1 | 2 | 3 | 2 |
| 4. Particle size of stream substrate | 0 | 1 | 2 | 3 | 2 |
| 5. Active/relict floodplain | 0 | 1 | 2 | 3 | 1 |
| 6. Depositional bars or benches | 0 | 1 | 2 | 3 | 2 |
| 7. Recent alluvial deposits | 0 | 1 | 2 | 3 | 1 |
| 8. Headcuts | 0 | 1 | 2 | 3 | 3 |
| 9. Grade control | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 10. Natural valley | 0 | 0.5 | 1 | 1.5 | 0 |
| 11. Second or greater order channel | No = 0 | | Yes = 3 | | 0 |

[a] artificial ditches are not rated; see discussions in manual

| **B. Hydrology Subtotal = 9** | | | | | |
|---|---|---|---|---|---|
| 12. Presence of Baseflow | 0 | 1 | 2 | 3 | 3 |
| 13. Iron oxidizing bacteria | 0 | 1 | 2 | 3 | 1 |
| 14. Leaf litter | 1.5 | 1 | 0.5 | 0 | 1.5 |
| 15. Sediment on plants or debris | 0 | 0.5 | 1 | 1.5 | 0 |
| 16. Organic debris lines or piles | 0 | 0.5 | 1 | 1.5 | 0.5 |
| 17. Soil-based evidence of high water table? | No = 0 | | Yes = 3 | | 3 |

| **C. Biology Subtotal = 6** | | | | | |
|---|---|---|---|---|---|
| 18. Fibrous roots in streambed | 3 | 2 | 1 | 0 | 3 |
| 19. Rooted upland plants in streambed | 3 | 2 | 1 | 0 | 3 |
| 20. Macrobenthos (note diversity and abundance) | 0 | 1 | 2 | 3 | 0 |
| 21. Aquatic Mollusks | 0 | 1 | 2 | 3 | 0 |
| 22. Fish | 0 | 0.5 | 1 | 1.5 | 0 |
| 23. Crayfish | 0 | 0.5 | 1 | 1.5 | 0 |
| 24. Amphibians | 0 | 0.5 | 1 | 1.5 | 0 |
| 25. Algae | 0 | 0.5 | 1 | 1.5 | 0 |
| 26. Wetland plants in streambed | FACW = 0.75; OBL = 1.5 Other = 0 | | | | 0 |

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Attachment I; Sheets 19 and 20

# EXHIBIT 13 - DATA POINTS

| DATA POINT | | | | | | |
|---|---|---|---|---|---|---|
| **Flag ID** | **Type** | **Source** | **Latitude** | **Longitude** | **Nearest Milepost** | **Sheet #** |
| DP-1 | Upland | William's Survey | 36.5443 | -79.6311 | 1387.1 | 2 |
| DP-2 | Wetland | William's Survey | 36.5443 | -79.6311 | 1387.1 | 2 |
| DP-3 | Upland | William's Survey | 36.5427 | -79.6321 | 1387 | 2 |
| DP-4 | Wetland | William's Survey | 36.5422 | -79.6326 | 1386.9 | 2 |
| DP-5 | Wetland | William's Survey | 36.5427 | -79.6324 | 1387 | 2 |
| DP-6 | Wetland | William's Survey | 36.5436 | -79.6320 | 1387 | 2 |
| DP-7 | Upland | William's Survey | 36.5463 | -79.6286 | 1387.3 | 2 |
| DP-8 | Wetland | William's Survey | 36.5463 | -79.6285 | 1387.3 | 2 |
| DP-9 | Wetland | William's Survey | 36.5512 | -79.6181 | 1387.9 | 2 |
| DP-10 | Upland | William's Survey | 36.5512 | -79.6182 | 1387.9 | 2 |
| DP-11 | Wetland | William's Survey | 36.5511 | -79.6137 | M-0402 1388.20 | 3 |
| DP-12 | Upland | William's Survey | 36.5510 | -79.6138 | M-0402 1388.20 | 3 |
| DP-13 | Wetland | William's Survey | 36.5508 | -79.6139 | M-0402 1388.20 | 3 |
| DP-14 | Wetland | William's Survey | 36.5508 | -79.6142 | M-0402 1388.20 | 3 |
| DP-15 | Wetland | William's Survey | 36.5510 | -79.6143 | M-0402 1388.20 | 3 |
| DP-16 | Upland | William's Survey | 36.5511 | -79.6146 | M-0402 1388.20 | 3 |
| DP-17 | Wetland | William's Survey | 36.5509 | -79.6153 | 1388 | 3 |
| DP-18 | Upland | William's Survey | 36.5510 | -79.6152 | 1388 | 3 |
| DP-19 | Wetland | William's Survey | 36.6632 | -79.5128 | 1397.8 | 10 |
| DP-20 | Upland | William's Survey | 36.6637 | -79.5112 | 1397.9 | 10 |
| DP-21 | Upland | William's Survey | 36.6634 | -79.5127 | 1397.8 | 10 |
| DP-22 | Wetland | William's Survey | 36.6628 | -79.5122 | 1397.8 | 10 |
| DP-23 | Upland | William's Survey | 36.6627 | -79.5122 | 1397.8 | 10 |
| DP-24 | Wetland | William's Survey | 36.6632 | -79.5120 | 1397.8 | 10 |
| DP-25 | Upland | William's Survey | 36.6632 | -79.5120 | 1397.8 | 10 |
| DP-26 | Wetland | William's Survey | 36.6603 | -79.5157 | 1397.5 | 10 |
| DP-27 | Wetland | William's Survey | 36.6599 | -79.5164 | 1397.4 | 10 |
| DP-28 | Upland | William's Survey | 36.6599 | -79.5165 | 1397.4 | 10 |
| DP-29 | Wetland | William's Survey | 36.6577 | -79.5175 | 1397.3 | 10 |
| DP-30 | Wetland | William's Survey | 36.6575 | -79.5188 | 1397.2 | 10 |
| DP-31 | Wetland | William's Survey | 36.7193 | -79.4573 | 1402.7 | 14 |
| DP-32 | Upland | William's Survey | 36.7193 | -79.4573 | 1402.7 | 14 |
| DP-33 | Wetland | William's Survey | 36.7187 | -79.4569 | 1402.7 | 14 |
| DP-34 | Upland | William's Survey | 36.7188 | -79.4570 | 1402.7 | 14 |
| DP-35 | Wetland | William's Survey | 36.7200 | -79.4574 | 1402.8 | 14 |
| DP-36 | Wetland | William's Survey | 36.7191 | -79.4571 | 1402.7 | 14 |
| DP-37 | Upland | William's Survey | 36.7196 | -79.4575 | 1402.7 | 14 |
| DP-38 | Wetland | William's Survey | 36.7228 | -79.4549 | 1403 | 14 |
| DP-39 | Wetland | William's Survey | 36.7224 | -79.4548 | 1403 | 14 |
| DP-40 | Upland | William's Survey | 36.7221 | -79.4547 | 1403 | 14 |
| DP-41 | Wetland | William's Survey | 36.7238 | -79.4538 | 1403.1 | 14 |

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|---|---|---|---|---|---|---|
| DP-42 | Upland | William's Survey | 36.7236 | -79.4536 | 1403.1 | 14 |
| DP-43 | Wetland | William's Survey | 36.7235 | -79.4537 | 1403.1 | 14 |
| DP-44 | Wetland | William's Survey | 36.7292 | -79.4468 | 1403.6 | 15 |
| DP-45 | Wetland | William's Survey | 36.7291 | -79.4458 | 1403.7 | 15 |
| DP-46 | Upland | William's Survey | 36.7290 | -79.4462 | 1403.6 | 15 |
| DP-47 | Wetland | William's Survey | 36.7291 | -79.4461 | 1403.7 | 15 |
| DP-48 | Wetland | William's Survey | 36.7367 | -79.4388 | 1404.3 | 15 |
| DP-49 | Upland | William's Survey | 36.7367 | -79.4390 | 1404.3 | 15 |
| DP-50 | Wetland | William's Survey | 36.7348 | -79.4407 | 1404.1 | 15 |
| DP-51 | Upland | William's Survey | 36.7346 | -79.4408 | 1404.1 | 15 |
| DP-52 | Wetland | William's Survey | 36.7348 | -79.4415 | 1404.1 | 15 |
| DP-53 | Wetland | William's Survey | 36.7355 | -79.4411 | 1404.2 | 15 |
| DP-54 | Upland | William's Survey | 36.6575 | -79.5187 | 1397.2 | 10 |
| DP-55 | Wetland | William's Survey | 36.5529 | -79.6225 | 1387.9 | 2 |
| DP-56 | Upland | William's Survey | 36.5528 | -79.6225 | 1387.9 | 2 |
| DP-57 | Upland | Ecobot | 36.7192 | -79.4570 | 1402.7 | 14 |
| DP-58 | Upland | William's Survey | 36.6578 | -79.5177 | 1397.3 | 10 |
| DP-59 | Wetland | William's Survey | 36.6324 | -79.5440 | 1395 | 8 |
| DP-60 | Upland | William's Survey | 36.6326 | -79.5440 | 1395 | 8 |
| DP-61 | Wetland | William's Survey | 36.6361 | -79.5411 | 1395.3 | 8 |
| DP-62 | Upland | William's Survey | 36.6361 | -79.5412 | 1395.3 | 8 |
| DP-63 | Wetland | William's Survey | 36.6328 | -79.5433 | 1395 | 8 |
| DP-64 | Upland | William's Survey | 36.6328 | -79.5434 | 1395 | 8 |
| DP-65 | Wetland | William's Survey | 36.5873 | -79.5866 | 1391 | 5 |
| DP-66 | Upland | William's Survey | 36.5875 | -79.5865 | 1391.1 | 5 |
| DP-67 | Wetland | William's Survey | 36.5888 | -79.5851 | 1391.2 | 5 |
| DP-68 | Upland | William's Survey | 36.5889 | -79.5853 | 1391.2 | 5 |
| DP-69 | Wetland | William's Survey | 36.5890 | -79.5856 | 1391.2 | 5 |
| DP-70 | Wetland | William's Survey | 36.5904 | -79.5835 | 1391.3 | 5 |
| DP-71 | Upland | William's Survey | 36.5905 | -79.5836 | 1391.3 | 5 |
| DP-72 | Upland | William's Survey | 36.5939 | -79.5798 | 1391.6 | 5 |
| DP-73 | Wetland | William's Survey | 36.5937 | -79.5798 | 1391.6 | 5 |
| DP-74 | Wetland | William's Survey | 36.6005 | -79.5633 | 1392.5 | 6 |
| DP-75 | Wetland | William's Survey | 36.6007 | -79.5625 | 1392.6 | 6 |
| DP-76 | Upland | William's Survey | 36.6006 | -79.5626 | 1392.6 | 6 |
| DP-77 | Upland | William's Survey | 36.6068 | -79.5684 | 1392.7 | 6 |
| DP-78 | Wetland | William's Survey | 36.6069 | -79.5684 | 1392.7 | 6 |
| DP-79 | Wetland | William's Survey | 36.6062 | -79.5681 | 1392.7 | 6 |
| DP-80 | Wetland | William's Survey | 36.6060 | -79.5681 | 1392.7 | 6 |
| DP-81 | Upland | William's Survey | 36.6065 | -79.5682 | 1392.7 | 6 |
| DP-82 | Wetland | William's Survey | 36.6029 | -79.5673 | 1392.5 | 6 |
| DP-83 | Upland | William's Survey | 36.6028 | -79.5673 | 1392.5 | 6 |
| DP-84 | Wetland | William's Survey | 36.5998 | -79.5651 | 1392.4 | 6 |
| DP-85 | Upland | William's Survey | 36.5999 | -79.5651 | 1392.4 | 6 |

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|---|---|---|---|---|---|---|
| DP-86 | Upland | William's Survey | 36.6081 | -79.5674 | 1392.8 | 6 |
| DP-87 | Wetland | William's Survey | 36.6039 | -79.5710 | 1392.5 | 6 |
| DP-88 | Upland | William's Survey | 36.6040 | -79.5710 | 1392.5 | 6 |
| DP-89 | Wetland | William's Survey | 36.6035 | -79.5706 | 1392.5 | 6 |
| DP-90 | Upland | William's Survey | 36.6035 | -79.5707 | 1392.5 | 6 |
| DP-91 | Wetland | William's Survey | 36.5988 | -79.5744 | 1392.1 | 6 |
| DP-92 | Upland | William's Survey | 36.5989 | -79.5744 | 1392.1 | 6 |
| DP-93 | Wetland | William's Survey | 36.5987 | -79.5742 | 1392.1 | 6 |
| DP-94 | Wetland | William's Survey | 36.6019 | -79.5669 | 1392.5 | 6 |
| DP-95 | Upland | William's Survey | 36.6018 | -79.5668 | 1392.5 | 6 |
| DP-96 | Upland | Ecobot | 36.5960 | -79.5772 | 1391.8 | 5 |
| DP-97 | Wetland | William's Survey | 36.5961 | -79.5773 | 1391.8 | 5 |
| DP-98 | Wetland | Ecobot | 36.5958 | -79.5771 | 1391.8 | 5 |
| DP-99 | Upland | William's Survey | 36.5953 | -79.5789 | 1391.7 | 5 |
| DP-100 | Wetland | William's Survey | 36.6137 | -79.5629 | M-0402 1393.30 | 7 |
| DP-101 | Upland | William's Survey | 36.6138 | -79.5629 | M-0402 1393.30 | 7 |
| DP-102 | Upland | William's Survey | 36.6139 | -79.5620 | M-0402 1393.30 | 7 |
| DP-103 | Upland | William's Survey | 36.6139 | -79.5620 | M-0402 1393.30 | 7 |
| DP-104 | Wetland | William's Survey | 36.6143 | -79.5615 | M-0402 1393.40 | 7 |
| DP-105 | Upland | William's Survey | 36.6143 | -79.5616 | M-0402 1393.40 | 7 |
| DP-106 | Wetland | William's Survey | 36.6173 | -79.5597 | M-0402 1393.60 | 7 |
| DP-107 | Upland | William's Survey | 36.6172 | -79.5598 | M-0402 1393.60 | 7 |
| DP-108 | Wetland | William's Survey | 36.6234 | -79.5531 | 1394.2 | 7 |
| DP-109 | Upland | William's Survey | 36.6234 | -79.5531 | 1394.2 | 7 |
| DP-110 | Upland | William's Survey | 36.6257 | -79.5507 | 1394.4 | 7 |
| DP-111 | Upland | William's Survey | 36.6261 | -79.5507 | 1394.4 | 7 |
| DP-112 | Upland | William's Survey | 36.6256 | -79.5505 | 1394.4 | 7 |
| DP-113 | Wetland | William's Survey | 36.6280 | -79.5483 | 1394.6 | 8 |
| DP-114 | Upland | William's Survey | 36.6281 | -79.5482 | 1394.6 | 8 |
| DP-115 | Wetland | William's Survey | 36.6286 | -79.5486 | 1394.6 | 8 |
| DP-116 | Wetland | William's Survey | 36.6371 | -79.5380 | 1395.4 | 8 |
| DP-117 | Upland | William's Survey | 36.6372 | -79.5379 | 1395.4 | 8 |
| DP-118 | Wetland | William's Survey | 36.6418 | -79.5338 | 1395.8 | 9 |
| DP-119 | Upland | William's Survey | 36.6418 | -79.5338 | 1395.8 | 9 |
| DP-120 | Upland | William's Survey | 36.7171 | -79.4597 | 1402.5 | 14 |
| DP-121 | Wetland | William's Survey | 36.7175 | -79.4599 | 1402.5 | 14 |
| DP-122 | Wetland | William's Survey | 36.6430 | -79.5323 | 1396 | 9 |
| DP-123 | Upland | William's Survey | 36.6429 | -79.5319 | 1396 | 9 |
| DP-124 | Wetland | William's Survey | 36.6427 | -79.5320 | 1395.9 | 9 |
| DP-125 | Upland | William's Survey | 36.7125 | -79.4645 | 1402.1 | 14 |
| DP-126 | Wetland | William's Survey | 36.7075 | -79.4682 | 1401.7 | 13 |
| DP-127 | Upland | William's Survey | 36.7075 | -79.4683 | 1401.7 | 13 |
| DP-128 | Upland | William's Survey | 36.6521 | -79.5224 | 1396.8 | 9 |
| DP-129 | Upland | William's Survey | 36.6521 | -79.5223 | 1396.8 | 9 |

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|---|---|---|---|---|---|---|
| DP-130 | Upland | William's Survey | 36.6520 | -79.5223 | 1396.8 | 9 |
| DP-131 | Wetland | William's Survey | 36.6518 | -79.5235 | 1396.8 | 9 |
| DP-132 | Upland | William's Survey | 36.6518 | -79.5235 | 1396.8 | 9 |
| DP-133 | Wetland | William's Survey | 36.7063 | -79.4701 | 1401.6 | 13 |
| DP-134 | Wetland | William's Survey | 36.7061 | -79.4699 | 1401.6 | 13 |
| DP-135 | Upland | William's Survey | 36.7061 | -79.4698 | 1401.6 | 13 |
| DP-136 | Wetland | William's Survey | 36.7018 | -79.4735 | 1401.2 | 13 |
| DP-137 | Wetland | William's Survey | 36.7024 | -79.4738 | 1401.2 | 13 |
| DP-138 | Upland | William's Survey | 36.7021 | -79.4735 | 1401.2 | 13 |
| DP-139 | Upland | William's Survey | 36.6997 | -79.4770 | 1401 | 13 |
| DP-140 | Wetland | William's Survey | 36.6988 | -79.4768 | 1400.9 | 13 |
| DP-141 | Upland | William's Survey | 36.6989 | -79.4769 | 1400.9 | 13 |
| DP-142 | Upland | William's Survey | 36.6916 | -79.4846 | 1400.3 | 12 |
| DP-143 | Wetland | William's Survey | 36.6897 | -79.4866 | 1400.1 | 12 |
| DP-144 | Upland | William's Survey | 36.6895 | -79.4866 | 1400.1 | 12 |
| DP-145 | Upland | William's Survey | 36.7707 | -79.4030 | M-0307 1407.50 | 18 |
| DP-146 | Upland | William's Survey | 36.7737 | -79.4035 | 1407.4 | 18 |
| DP-147 | Wetland | William's Survey | 36.7735 | -79.4035 | 1407.4 | 18 |
| DP-148 | Wetland | William's Survey | 36.7735 | -79.4023 | M-0307 1407.60 | 18 |
| DP-149 | Upland | William's Survey | 36.7735 | -79.4023 | M-0307 1407.60 | 18 |
| DP-150 | Wetland | William's Survey | 36.7733 | -79.4007 | M-0307 1407.60 | 18 |
| DP-151 | Upland | William's Survey | 36.7733 | -79.4007 | M-0307 1407.60 | 18 |
| DP-152 | Upland | William's Survey | 36.7660 | -79.4096 | 1406.9 | 17 |
| DP-153 | Wetland | William's Survey | 36.7684 | -79.4085 | 1407.1 | 17 |
| DP-154 | Wetland | William's Survey | 36.7734 | -79.3985 | M-0307 1407.70 | 18 |
| DP-155 | Wetland | William's Survey | 36.7734 | -79.3988 | M-0307 1407.70 | 18 |
| DP-156 | Upland | William's Survey | 36.7734 | -79.3989 | M-0307 1407.70 | 18 |
| DP-157 | Upland | William's Survey | 36.7686 | -79.4086 | 1407.1 | 17 |
| DP-158 | Upland | William's Survey | 36.7632 | -79.4144 | 1406.6 | 17 |
| DP-159 | Wetland | William's Survey | 36.7627 | -79.4150 | 1406.5 | 17 |
| DP-160 | Upland | William's Survey | 36.7628 | -79.4149 | 1406.6 | 17 |
| DP-161 | Upland | William's Survey | 36.7628 | -79.4147 | 1406.6 | 17 |
| DP-162 | Upland | William's Survey | 36.7623 | -79.4145 | 1406.5 | 17 |
| DP-163 | Wetland | William's Survey | 36.7745 | -79.4007 | M-0307 1407.70 | 18 |
| DP-164 | Upland | William's Survey | 36.7744 | -79.4003 | M-0307 1407.70 | 18 |
| DP-165 | Wetland | William's Survey | 36.7606 | -79.4168 | 1406.4 | 17 |
| DP-166 | Wetland | William's Survey | 36.7608 | -79.4165 | 1406.4 | 17 |
| DP-167 | Upland | William's Survey | 36.7604 | -79.4171 | 1406.3 | 17 |
| DP-168 | Wetland | William's Survey | 36.7602 | -79.4176 | 1406.3 | 17 |
| DP-169 | Upland | William's Survey | 36.7603 | -79.4177 | 1406.3 | 17 |
| DP-170 | Wetland | William's Survey | 36.7750 | -79.3991 | M-0307 1407.70 | 18 |
| DP-171 | Wetland | William's Survey | 36.7744 | -79.3985 | M-0307 1407.70 | 18 |
| DP-172 | Upland | William's Survey | 36.7743 | -79.3994 | M-0307 1407.70 | 18 |
| DP-173 | Wetland | William's Survey | 36.7598 | -79.4182 | 1406.3 | 17 |

| | | | | | | |
|---|---|---|---|---|---|---|
| DP-174 | Upland | William's Survey | 36.7598 | -79.4185 | 1406.3 | 17 |
| DP-175 | Upland | William's Survey | 36.7602 | -79.4211 | 1406.2 | 17 |
| DP-176 | Wetland | William's Survey | 36.7595 | -79.4177 | 1406.3 | 17 |
| DP-177 | Upland | William's Survey | 36.7594 | -79.4175 | 1406.3 | 17 |
| DP-178 | Wetland | William's Survey | 36.7597 | -79.4178 | 1406.3 | 17 |
| DP-179 | Wetland | William's Survey | 36.7534 | -79.4245 | 1405.7 | 16 |
| DP-180 | Upland | William's Survey | 36.7532 | -79.4242 | 1405.7 | 16 |
| DP-181 | Wetland | William's Survey | 36.6684 | -79.5081 | 1398.2 | 10 |
| DP-182 | Upland | William's Survey | 36.6684 | -79.5080 | 1398.2 | 10 |
| DP-183 | Wetland | William's Survey | 36.7887 | -79.3879 | M-0437 1409.60 | 20 |
| DP-184 | Upland | William's Survey | 36.7885 | -79.3881 | M-0437 1409.50 | 20 |
| DP-185 | Wetland | William's Survey | 36.6683 | -79.5074 | 1398.2 | 10,11 |
| DP-186 | Upland | William's Survey | 36.6682 | -79.5074 | 1398.2 | 10 |
| DP-187 | Wetland | William's Survey | 36.6735 | -79.5020 | 1398.7 | 11 |
| DP-188 | Upland | William's Survey | 36.6739 | -79.5023 | 1398.7 | 11 |
| DP-189 | Upland | William's Survey | 36.6736 | -79.5020 | 1398.7 | 11 |
| DP-190 | Wetland | William's Survey | 36.6737 | -79.5014 | 1398.7 | 11 |
| DP-191 | Upland | William's Survey | 36.6825 | -79.4932 | 1399.5 | 11,12 |
| DP-192 | Wetland | William's Survey | 36.7872 | -79.3810 | M-0437 1409.40 | 20 |
| DP-193 | Upland | William's Survey | 36.7872 | -79.3809 | M-0437 1409.40 | 20 |
| DP-194 | Wetland | Ecobot | 36.8067 | -79.3659 | 1410.7 | 21 |
| DP-195 | Wetland | William's Survey | 36.8035 | -79.3691 | 1410.4 | 21 |
| DP-196 | Upland | William's Survey | 36.8034 | -79.3691 | 1410.4 | 21 |
| DP-197 | Wetland | William's Survey | 36.7462 | -79.4301 | 1405.1 | 16 |
| DP-198 | Upland | William's Survey | 36.7462 | -79.4302 | 1405.1 | 16 |
| DP-199 | Wetland | William's Survey | 36.8086 | -79.3641 | 1410.9 | 21 |
| DP-200 | Upland | William's Survey | 36.8087 | -79.3634 | 1410.9 | 21 |
| DP-201 | Wetland | William's Survey | 36.8088 | -79.3633 | 1410.9 | 21 |
| DP-202 | Wetland | William's Survey | 36.8116 | -79.3602 | 1411.2 | 22 |
| DP-203 | Upland | William's Survey | 36.8118 | -79.3603 | 1411.2 | 22 |
| DP-204 | Wetland | Ecobot | 36.8107 | -79.3611 | 1411.1 | 22 |
| DP-205 | Wetland | William's Survey | 36.8164 | -79.3543 | M-0402 1411.70 | 22 |
| DP-206 | Upland | William's Survey | 36.8164 | -79.3545 | M-0402 1411.70 | 22 |
| DP-207 | Wetland | William's Survey | 36.8203 | -79.3511 | M-0402 1412.00 | 22 |
| DP-208 | Upland | William's Survey | 36.8202 | -79.3511 | M-0402 1412.00 | 22 |
| DP-209 | Wetland | William's Survey | 36.5870 | -79.5870 | 1391 | 5 |
| DP-210 | Upland | William's Survey | 36.5871 | -79.5871 | 1391 | 5 |
| DP-211 | Wetland | William's Survey | 36.5845 | -79.5898 | 1390.8 | 5 |
| DP-212 | Upland | William's Survey | 36.5843 | -79.5899 | 1390.8 | 5 |
| DP-213 | Wetland | Ecobot | 36.5846 | -79.5902 | 1390.8 | 5 |
| DP-214 | Upland | William's Survey | 36.5824 | -79.5918 | M-0402 1390.60 | 5 |
| DP-215 | Upland | Ecobot | 36.5825 | -79.5919 | M-0402 1390.60 | 4,5 |
| DP-216 | Wetland | William's Survey | 36.8240 | -79.3473 | M-0312 1412.40 | 23 |
| DP-217 | Upland | William's Survey | 36.8239 | -79.3474 | M-0312 1412.40 | 23 |

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|---|---|---|---|---|---|---|
| DP-218 | Wetland | William's Survey | 36.8239 | -79.3473 | M-0312 1412.40 | 23 |
| DP-219 | Upland | William's Survey | 36.8362 | -79.3336 | 1413.29 | 23 |
| DP-220 | Wetland | William's Survey | 36.8361 | -79.3337 | 1413.29 | 23 |
| DP-221 | Upland | William's Survey | 36.5579 | -79.6167 | M-0402 1388.40 | 3 |
| DP-222 | Wetland | William's Survey | 36.5584 | -79.6162 | M-0402 1388.40 | 3 |
| DP-223 | Wetland | William's Survey | 36.5564 | -79.6187 | M-0402 1388.20 | 3 |
| DP-224 | Upland | William's Survey | 36.5570 | -79.6180 | M-0402 1388.30 | 3 |
| DP-225 | Wetland | William's Survey | 36.5613 | -79.6131 | 1388.7 | 3 |
| DP-226 | Upland | William's Survey | 36.5613 | -79.6130 | 1388.7 | 3 |
| DP-227 | Wetland | William's Survey | 36.5694 | -79.6042 | 1389.4 | 4 |
| DP-228 | Upland | William's Survey | 36.5694 | -79.6044 | 1389.4 | 4 |
| DP-229 | Upland | William's Survey | 36.5661 | -79.6015 | 1389.3 | 4 |
| DP-230 | Wetland | William's Survey | 36.5663 | -79.6009 | 1389.4 | 4 |
| DP-231 | Upland | William's Survey | 36.8353 | -79.3342 | 1413.29 | 23 |
| DP-232 | Wetland | William's Survey | 36.8351 | -79.3344 | 1413.29 | 23 |
| DP-233 | Upland | William's Survey | 36.8349 | -79.3347 | 1413.29 | 23 |
| DP-234 | Wetland | William's Survey | 36.8348 | -79.3347 | 1413.29 | 23 |
| DP-235 | Wetland | William's Survey | 36.5724 | -79.6019 | 1389.7 | 4 |
| DP-236 | Upland | William's Survey | 36.5724 | -79.6018 | 1389.7 | 4 |
| DP-237 | Wetland | William's Survey | 36.7720 | -79.3952 | M-0307 1407.90 | 19 |
| DP-238 | Upland | William's Survey | 36.7720 | -79.3952 | M-0307 1407.90 | 19 |
| DP-239 | Upland | William's Survey | 36.8360 | -79.3342 | 1413.29 | 23 |
| DP-240 | Upland | William's Survey | 36.5758 | -79.5985 | 1390 | 4 |
| DP-241 | Wetland | William's Survey | 36.5756 | -79.5986 | 1389.9 | 4 |
| DP-242 | Wetland | William's Survey | 36.5762 | -79.5972 | 1390 | 4 |
| DP-243 | Upland | Ecobot | 36.5762 | -79.5974 | 1390 | 4 |
| DP-244 | Wetland | William's Survey | 36.5767 | -79.5974 | 1390.1 | 4 |
| DP-245 | Upland | William's Survey | 36.8359 | -79.3339 | 1413.29 | 23 |
| DP-246 | Wetland | William's Survey | 36.8357 | -79.3340 | 1413.29 | 23 |
| DP-247 | Upland | Ecobot | 36.8355 | -79.3341 | 1413.29 | 23 |
| DP-248 | Wetland | William's Survey | 36.8358 | -79.3326 | 1413.29 | 23 |
| DP-249 | Upland | William's Survey | 36.8358 | -79.3325 | 1413.29 | 23 |
| DP-250 | Wetland | William's Survey | 36.8357 | -79.3326 | 1413.29 | 23 |
| DP-251 | Wetland | William's Survey | 36.8366 | -79.3350 | 1413.29 | 23 |
| DP-252 | Upland | William's Survey | 36.8365 | -79.3350 | 1413.29 | 23 |
| DP-253 | Wetland | William's Survey | 36.8336 | -79.3329 | 1413.29 | 23 |
| DP-254 | Upland | William's Survey | 36.8335 | -79.3365 | 1413.29 | 23 |
| DP-255 | Wetland | William's Survey | 36.8355 | -79.3353 | 1413.29 | 23 |
| DP-256 | Upland | William's Survey | 36.8356 | -79.3354 | 1413.29 | 23 |
| DP-257 | Wetland | William's Survey | 36.8297 | -79.3421 | 1412.8 | 23 |
| DP-258 | Wetland | William's Survey | 36.8288 | -79.3422 | 1412.8 | 23 |
| DP-259 | Wetland | Ecobot | 36.8287 | -79.3422 | 1412.8 | 23 |
| DP-260 | Upland | William's Survey | 36.8298 | -79.3419 | 1412.9 | 23 |
| DP-261 | Wetland | William's Survey | 36.8280 | -79.3416 | 1412.8 | 23 |

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|---|---|---|---|---|---|---|
| DP-262 | Wetland | Ecobot | 36.7415 | -79.4339 | M-0388 1404.70 | 16 |
| DP-263 | Wetland | Ecobot | 36.7416 | -79.4343 | M-0388 1404.70 | 16 |
| DP-264 | Upland | Ecobot | 36.7417 | -79.4341 | M-0388 1404.80 | 16 |
| DP-265 | Wetland | William's Survey | 36.8309 | -79.3389 | 1413 | 23 |
| DP-266 | Upland | William's Survey | 36.8309 | -79.3390 | 1413 | 23 |
| DP-267 | Wetland | William's Survey | 36.8314 | -79.3401 | 1413 | 23 |
| DP-268 | Upland | William's Survey | 36.8312 | -79.3404 | 1413 | 23 |
| DP-269 | Wetland | William's Survey | 36.8313 | -79.3395 | 1413 | 23 |
| DP-270 | Upland | William's Survey | 36.8313 | -79.3407 | 1413 | 23 |
| DP-271 | Upland | William's Survey | 36.8298 | -79.3373 | 1413 | 23 |
| DP-272 | Wetland | William's Survey | 36.8294 | -79.3373 | 1413 | 23 |
| DP-273 | Upland | Ecobot | 36.7745 | -79.3986 | M-0307 1407.70 | 18 |
| DP-274 | Upland | Ecobot | 36.7838 | -79.3920 | M-0307 1408.80 | 20 |
| DP-275 | Wetland | William's Survey | 36.5511 | -79.6159 | 1388 | 3 |
| DP-276 | Wetland | William's Survey | 36.5510 | -79.6166 | 1388 | 2,3 |
| DP-277 | Upland | Ecobot | 36.5526 | -79.6225 | 1387.9 | 2 |
| DP-278 | Upland | Ecobot | 36.5573 | -79.6172 | M-0402 1388.30 | 3 |
| DP-279 | Wetland | Ecobot | 36.5659 | -79.6080 | 1389.1 | 3 |
| DP-280 | Upland | Ecobot | 36.5659 | -79.6083 | 1389.1 | 3 |
| DP-281 | Wetland | William's Survey | 36.5675 | -79.6057 | 1389.3 | 3 |
| DP-282 | Upland | Ecobot | 36.5846 | -79.5899 | 1390.8 | 5 |
| DP-283 | Upland | Ecobot | 36.6682 | -79.5080 | 1398.2 | 10 |
| DP-284 | Upland | Ecobot | 36.6918 | -79.4835 | 1400.3 | 12 |
| DP-285 | Upland | Ecobot | 36.6912 | -79.4839 | 1400.3 | 12 |
| DP-286 | Upland | Ecobot | 36.7757 | -79.3989 | M-0307 1407.70 | 18 |
| DP-287 | Wetland | Ecobot | 36.7580 | -79.4188 | 1406.2 | 17 |
| DP-288 | Upland | Ecobot | 36.7580 | -79.4187 | 1406.2 | 17 |
| DP-289 | Upland | Ecobot | 36.7573 | -79.4199 | 1406.1 | 17 |
| DP-290 | Upland | Ecobot | 36.8233 | -79.3473 | M-0312 1412.30 | 22 |
| DP-291 | Upland | Ecobot | 36.5717 | -79.6027 | 1389.6 | 4 |
| DP-292 | Upland | Ecobot | 36.5737 | -79.5996 | 1389.8 | 4 |
| DP-293 | Upland | Ecobot | 36.5761 | -79.5982 | 1390 | 4 |
| DP-294 | Upland | Ecobot | 36.5775 | -79.5965 | 1390.1 | 4 |
| DP-295 | Upland | Ecobot | 36.8185 | -79.3525 | M-0402 1411.90 | 22 |
| DP-296 | Upland | William's Survey | 36.7712 | -79.4028 | M-0307 1407.50 | 18 |
| DP-297 | Wetland | William's Survey | 36.7723 | -79.3967 | M-0307 1407.80 | 19 |
| DP-298 | Upland | William's Survey | 36.7731 | -79.3980 | M-0307 1407.80 | 18,19 |
| DP-299 | Upland | William's Survey | 36.5992 | -79.5781 | 1392 | 6 |
| DP-300 | Upland | William's Survey | 36.5990 | -79.5768 | 1392 | 6 |
| DP-301 | Upland | William's Survey | 36.5988 | -79.5760 | 1392 | 6 |
| DP-302 | Upland | William's Survey | 36.5993 | -79.5774 | 1392 | 6 |
| DP-303 | Upland | William's Survey | 36.7721 | -79.3969 | M-0307 1407.80 | 19 |
| DP-304 | Wetland | Ecobot | 36.7431 | -79.4351 | M-0388 1404.80 | 16 |
| DP-305 | Upland | William's Survey | 36.7432 | -79.4351 | M-0388 1404.80 | 16 |

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|---|---|---|---|---|---|---|
| DP-306 | Wetland | William's Survey | 36.7424 | -79.4354 | M-0388 1404.80 | 16 |
| DP-307 | Wetland | William's Survey | 36.7422 | -79.4353 | M-0388 1404.80 | 16 |
| DP-308 | Upland | William's Survey | 36.7423 | -79.4355 | M-0388 1404.80 | 16 |
| DP-309 | Wetland | William's Survey | 36.6050 | -79.5627 | 1392.8 | 6 |
| DP-310 | Upland | William's Survey | 36.6050 | -79.5625 | 1392.8 | 6 |
| DP-311 | Upland | William's Survey | 36.7881 | -79.3831 | M-0437 1409.50 | 20 |
| DP-312 | Upland | William's Survey | 36.7877 | -79.3802 | M-0437 1409.40 | 20 |
| DP-313 | Wetland | William's Survey | 36.7878 | -79.3803 | M-0437 1409.40 | 20 |
| DP-314 | Wetland | William's Survey | 36.7872 | -79.3804 | M-0437 1409.30 | 20 |
| DP-315 | Upland | William's Survey | 36.7873 | -79.3804 | M-0437 1409.40 | 20 |
| DP-316 | Wetland | William's Survey | 36.7873 | -79.3800 | M-0437 1409.30 | 20 |
| DP-317 | Upland | William's Survey | 36.7874 | -79.3801 | M-0437 1409.30 | 20 |
| DP-326 | Wetland | Ecobot | 36.8060 | -79.3670 | 1410.7 | 21 |
| DP-327 | Upland | William's Survey | 36.7782 | -79.3914 | M-0307 1408.60 | 19 |
| DP-328 | Wetland | William's Survey | 36.5868 | -79.5870 | 1391 | 5 |
| DP-329 | Upland | William's Survey | 36.5868 | -79.5871 | 1391 | 5 |
| DP-330 | Upland | William's Survey | 36.5988 | -79.5742 | 1392.1 | 6 |
| DP-331 | Upland | William's Survey | 36.5986 | -79.5743 | 1392.1 | 6 |
| DP-332 | Upland | William's Survey | 36.6135 | -79.5631 | M-0402 1393.30 | 7 |
| DP-333 | Upland | Ecobot | 36.6134 | -79.5633 | M-0402 1393.30 | 7 |
| DP-334 | Upland | William's Survey | 36.6228 | -79.5534 | 1394.1 | 7 |
| DP-335 | Upland | William's Survey | 36.6225 | -79.5537 | 1394.1 | 7 |
| DP-336 | Upland | William's Survey | 36.7730 | -79.3996 | M-0307 1407.70 | 18 |
| DP-337 | Wetland | William's Survey | 36.7732 | -79.3995 | M-0307 1407.70 | 18 |
| DP-338 | Upland | William's Survey | 36.5581 | -79.6165 | M-0402 1388.40 | 3 |
| DP-339 | Upland | William's Survey | 36.5590 | -79.6161 | M-0402 1388.40 | 3 |
| DP-340 | Upland | William's Survey | 36.5586 | -79.6168 | M-0402 1388.40 | 3 |
| DP-341 | Upland | William's Survey | 36.5564 | -79.6174 | M-0402 1388.30 | 3 |
| DP-342 | Upland | William's Survey | 36.8175 | -79.3531 | M-0402 1411.80 | 22 |
| DP-343 | Upland | William's Survey | 36.5581 | -79.6164 | M-0402 1388.40 | 3 |
| DP-344 | Upland | William's Survey | 36.5576 | -79.6170 | M-0402 1388.30 | 3 |
| DP-345 | Upland | Williams's Survey | 36.5584 | -79.6161 | M-0402 1388.40 | 3 |
| DP-346 | Wetland | Ecobot | 36.5585 | -79.6162 | M-0402 1388.40 | 3 |
| DP-347 | Upland | Williams's Survey | 36.5676 | -79.6057 | 1389.3 | 3 |
| DP-348 | Upland | Williams's Survey | 36.5695 | -79.6050 | 1389.4 | 4 |
| DP-349 | Wetland | Williams's Survey | 36.5706 | -79.6036 | 1389.5 | 4 |
| DP-350 | Wetland | Williams's Survey | 36.5705 | -79.6035 | 1389.5 | 4 |
| DP-351 | Wetland | Williams's Survey | 36.5702 | -79.6033 | 1389.5 | 4 |
| DP-352 | Upland | Williams's Survey | 36.5704 | -79.6034 | 1389.5 | 4 |
| DP-353 | Upland | Williams's Survey | 36.5525 | -79.6218 | 1387.9 | 2 |
| DP-354 | Upland | Williams's Survey | 36.7042 | -79.4710 | 1401.4 | 13 |
| DP-355 | Upland | Williams's Survey | 36.8062 | -79.3669 | 1410.7 | 21 |
| DP-356 | Upland | Ecobot | 36.8063 | -79.3667 | 1410.7 | 21 |
| DP-357 | Upland | Williams's Survey | 36.8063 | -79.3665 | 1410.7 | 21 |

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|---|---|---|---|---|---|---|
| DP-358 | Upland | William's Survey | 36.8211 | -79.3494 | M-0402 1412.10 | 22 |
| DP-359 | Upland | William's Survey | 36.5512 | -79.6166 | 1388 | 2,3 |
| DP-360 | Wetland | Ecobot | 36.8117 | -79.3594 | 1411.2 | 22 |
| DP-361 | Wetland | William's Survey | 36.8114 | -79.3597 | 1411.2 | 22 |
| DP-362 | Upland | William's Survey | 36.5577 | -79.6175 | M-0402 1388.30 | 3 |
| DP-363 | Wetland | William's Survey | 36.8031 | -79.3693 | 1410.4 | 21 |
| DP-364 | Upland | William's Survey | 36.5571 | -79.6176 | M-0402 1388.30 | 3 |
| DP-365 | Upland | William's Survey | 36.7578 | -79.4189 | 1406.1 | 17 |
| DP-366 | Upland | William's Survey | 36.7578 | -79.4190 | 1406.1 | 17 |
| DP-367 | Upland | William's Survey | 36.5442 | -79.6301 | 1387.1 | 2 |
| DP-368 | Wetland | William's Survey | 36.5887 | -79.5849 | 1391.2 | 5 |
| DP-369 | Wetland | William's Survey | 36.7191 | -79.4572 | 1402.7 | 14 |
| DP-370 | Upland | William's Survey | 36.5567 | -79.6181 | M-0402 1388.20 | 3 |
| DP-371 | Upland | William's Survey | 36.5868 | -79.5870 | 1391 | 5 |
| DP-372 | Upland | William's Survey | 36.5569 | -79.6178 | M-0402 1388.30 | 3 |
| DP-373 | Wetland | William's Survey | 36.5566 | -79.6179 | M-0402 1388.20 | 3 |
| DP-374 | Upland | William's Survey | 36.6736 | -79.5016 | 1398.7 | 11 |
| DP-375 | Upland | William's Survey | 36.6735 | -79.5015 | 1398.7 | 11 |
| DP-376 | Upland | William's Survey | 36.6136 | -79.5631 | M-0402 1393.30 | 7 |
| DP-377 | Upland | William's Survey | 36.6265 | -79.5503 | 1394.4 | 8 |
| DP-378 | Upland | William's Survey | 36.6139 | -79.5620 | M-0402 1393.30 | 7 |
| DP-379 | Wetland | William's Survey | 36.7017 | -79.4735 | 1401.2 | 13 |
| DP-380 | Upland | William's Survey | 36.5577 | -79.6165 | M-0402 1388.40 | 3 |
| DP-381 | Wetland | William's Survey | 36.5575 | -79.6165 | M-0402 1388.30 | 3 |
| DP-382 | Wetland | William's Survey | 36.5573 | -79.6164 | M-0402 1388.30 | 3 |
| DP-383 | Upland | William's Survey | 36.5574 | -79.6164 | M-0402 1388.30 | 3 |
| DP-384 | Wetland | William's Survey | 36.5572 | -79.6165 | M-0402 1388.30 | 3 |
| DP-385 | Upland | William's Survey | 36.5572 | -79.6165 | M-0402 1388.30 | 3 |
| DP-386 | Wetland | William's Survey | 36.5610 | -79.6130 | 1388.7 | 3 |
| DP-387 | Upland | William's Survey | 36.5610 | -79.6130 | 1388.7 | 3 |
| DP-388 | Upland | William's Survey | 36.5694 | -79.6045 | 1389.4 | 4 |
| DP-389 | Wetland | William's Survey | 36.5858 | -79.5886 | 1390.9 | 5 |
| DP-390 | Wetland | William's Survey | 36.5856 | -79.5882 | 1390.9 | 5 |
| DP-391 | Upland | William's Survey | 36.5858 | -79.5885 | 1390.9 | 5 |
| DP-392 | Wetland | William's Survey | 36.5873 | -79.5867 | 1391 | 5 |
| DP-393 | Wetland | William's Survey | 36.5940 | -79.5797 | 1391.6 | 5 |
| DP-394 | Wetland | William's Survey | 36.5958 | -79.5775 | 1391.8 | 5 |
| DP-395 | Upland | William's Survey | 36.5959 | -79.5775 | 1391.8 | 5 |
| DP-396 | Wetland | William's Survey | 36.5990 | -79.5747 | 1392.1 | 6 |
| DP-397 | Wetland | William's Survey | 36.5991 | -79.5748 | 1392.1 | 6 |
| DP-398 | Upland | William's Survey | 36.5991 | -79.5747 | 1392.1 | 6 |
| DP-399 | Wetland | William's Survey | 36.6064 | -79.5682 | 1392.7 | 6 |
| DP-400 | Wetland | William's Survey | 36.6065 | -79.5684 | 1392.7 | 6 |
| DP-401 | Upland | William's Survey | 36.6065 | -79.5683 | 1392.7 | 6 |

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| DP-402 | Wetland | William's Survey | 36.6076 | -79.5675 | 1392.8 | 6 |
| DP-403 | Wetland | William's Survey | 36.6139 | -79.5623 | M-0402 1393.30 | 7 |
| DP-404 | Upland | William's Survey | 36.6139 | -79.5625 | M-0402 1393.30 | 7 |
| DP-405 | Wetland | William's Survey | 36.5763 | -79.5972 | 1390 | 4 |
| DP-406 | Upland | William's Survey | 36.5763 | -79.5972 | 1390 | 4 |
| DP-407 | Wetland | William's Survey | 36.6138 | -79.5625 | M-0402 1393.30 | 7 |
| DP-408 | Wetland | William's Survey | 36.6329 | -79.5433 | 1395 | 8 |
| DP-409 | Wetland | William's Survey | 36.6332 | -79.5432 | 1395 | 8 |
| DP-410 | Wetland | William's Survey | 36.6333 | -79.5431 | 1395.1 | 8 |
| DP-411 | Wetland | William's Survey | 36.6325 | -79.5434 | 1395 | 8 |
| DP-412 | Upland | William's Survey | 36.6332 | -79.5431 | 1395 | 8 |
| DP-413 | Wetland | William's Survey | 36.6370 | -79.5381 | 1395.4 | 8 |
| DP-414 | Wetland | William's Survey | 36.6373 | -79.5378 | 1395.5 | 8 |
| DP-415 | Wetland | William's Survey | 36.6375 | -79.5376 | 1395.5 | 8 |
| DP-416 | Upland | William's Survey | 36.6373 | -79.5380 | 1395.4 | 8 |
| DP-417 | Wetland | William's Survey | 36.6521 | -79.5225 | 1396.8 | 9 |
| DP-418 | Wetland | William's Survey | 36.6737 | -79.5019 | 1398.7 | 11 |
| DP-419 | Wetland | William's Survey | 36.6736 | -79.5020 | 1398.7 | 11 |
| DP-420 | Wetland | William's Survey | 36.6824 | -79.4933 | 1399.5 | 11 |
| DP-421 | Wetland | William's Survey | 36.6989 | -79.4767 | 1400.9 | 13 |
| DP-422 | Upland | William's Survey | 36.6989 | -79.4769 | 1400.9 | 13 |
| DP-423 | Upland | William's Survey | 36.6989 | -79.4767 | 1401 | 13 |
| DP-424 | Wetland | William's Survey | 36.7021 | -79.4737 | 1401.2 | 13 |
| DP-425 | Wetland | William's Survey | 36.7022 | -79.4737 | 1401.2 | 13 |
| DP-426 | Wetland | William's Survey | 36.7024 | -79.4737 | 1401.2 | 13 |
| DP-427 | Upland | William's Survey | 36.7020 | -79.4737 | 1401.2 | 13 |
| DP-428 | Wetland | William's Survey | 36.7061 | -79.4698 | 1401.6 | 13 |
| DP-429 | Wetland | William's Survey | 36.7062 | -79.4700 | 1401.6 | 13 |
| DP-430 | Wetland | William's Survey | 36.7060 | -79.4698 | 1401.6 | 13 |
| DP-431 | Upland | William's Survey | 36.7060 | -79.4699 | 1401.6 | 13 |
| DP-432 | Wetland | William's Survey | 36.7079 | -79.4684 | 1401.7 | 13 |
| DP-433 | Upland | William's Survey | 36.7079 | -79.4683 | 1401.7 | 13 |
| DP-434 | Wetland | William's Survey | 36.7201 | -79.4569 | 1402.8 | 14 |
| DP-435 | Upland | William's Survey | 36.7203 | -79.4568 | 1402.8 | 14 |
| DP-436 | Wetland | William's Survey | 36.7204 | -79.4568 | 1402.8 | 14 |
| DP-437 | Wetland | William's Survey | 36.7206 | -79.4564 | 1402.8 | 14 |
| DP-438 | Upland | William's Survey | 36.7204 | -79.4566 | 1402.8 | 14 |
| DP-439 | Wetland | William's Survey | 36.7226 | -79.4548 | 1403 | 14 |
| DP-440 | Upland | William's Survey | 36.7223 | -79.4550 | 1403 | 14 |
| DP-441 | Upland | William's Survey | 36.6630 | -79.5126 | 1397.8 | 10 |
| DP-442 | Wetland | William's Survey | 36.7291 | -79.4466 | 1403.6 | 15 |
| DP-443 | Wetland | William's Survey | 36.7292 | -79.4465 | 1403.6 | 15 |
| DP-444 | Wetland | William's Survey | 36.7292 | -79.4463 | 1403.7 | 15 |
| DP-445 | Upland | William's Survey | 36.7292 | -79.4463 | 1403.7 | 15 |

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|---|---|---|---|---|---|---|
| DP-446 | Wetland | William's Survey | 36.7350 | -79.4413 | 1404.1 | 15 |
| DP-447 | Wetland | William's Survey | 36.7353 | -79.4408 | 1404.2 | 15 |
| DP-448 | Wetland | William's Survey | 36.7350 | -79.4409 | 1404.2 | 15 |
| DP-449 | Upland | William's Survey | 36.7353 | -79.4406 | 1404.2 | 15 |
| DP-450 | Wetland | William's Survey | 36.7419 | -79.4351 | M-0388 1404.70 | 16 |
| DP-451 | Wetland | William's Survey | 36.7417 | -79.4351 | M-0388 1404.70 | 16 |
| DP-452 | Wetland | William's Survey | 36.7465 | -79.4303 | 1405.1 | 16 |
| DP-453 | Wetland | William's Survey | 36.7464 | -79.4301 | 1405.1 | 16 |
| DP-454 | Upland | William's Survey | 36.7465 | -79.4301 | 1405.1 | 16 |
| DP-455 | Wetland | William's Survey | 36.7532 | -79.4239 | 1405.7 | 16 |
| DP-456 | Upland | William's Survey | 36.7532 | -79.4239 | 1405.7 | 16 |
| DP-457 | Wetland | William's Survey | 36.7542 | -79.4231 | 1405.8 | 16 |
| DP-458 | Wetland | William's Survey | 36.7543 | -79.4232 | 1405.8 | 16 |
| DP-459 | Wetland | William's Survey | 36.7541 | -79.4231 | 1405.8 | 16 |
| DP-460 | Upland | William's Survey | 36.7540 | -79.4232 | 1405.8 | 16 |
| DP-461 | Wetland | William's Survey | 36.7713 | -79.4014 | M-0307 1407.60 | 18 |
| DP-462 | Upland | William's Survey | 36.7713 | -79.4009 | M-0307 1407.60 | 18 |
| DP-463 | Wetland | William's Survey | 36.7718 | -79.4004 | M-0307 1407.60 | 18 |
| DP-464 | Upland | William's Survey | 36.7715 | -79.4004 | M-0307 1407.60 | 18 |
| DP-465 | Wetland | William's Survey | 36.7713 | -79.4002 | M-0307 1407.60 | 18 |
| DP-466 | Wetland | William's Survey | 36.7923 | -79.3816 | 1409.4 | 20 |
| DP-467 | Wetland | William's Survey | 36.7924 | -79.3816 | 1409.4 | 20 |
| DP-468 | Wetland | William's Survey | 36.7925 | -79.3816 | 1409.4 | 20 |
| DP-469 | Wetland | William's Survey | 36.7925 | -79.3815 | 1409.4 | 20 |
| DP-470 | Upland | William's Survey | 36.7923 | -79.3816 | 1409.4 | 20 |
| DP-471 | Wetland | William's Survey | 36.8090 | -79.3635 | 1410.9 | 21 |
| DP-472 | Wetland | William's Survey | 36.8163 | -79.3540 | M-0402 1411.70 | 22 |
| DP-473 | Wetland | William's Survey | 36.8208 | -79.3495 | M-0402 1412.10 | 22 |
| DP-474 | Wetland | William's Survey | 36.8309 | -79.3402 | 1413 | 23 |
| DP-475 | Wetland | William's Survey | 36.8314 | -79.3395 | 1413 | 23 |
| DP-476 | Upland | William's Survey | 36.8340 | -79.3361 | 1413.29 | 23 |
| DP-477 | Upland | William's Survey | 36.8346 | -79.3356 | 1413.29 | 23 |
| DP-478 | Upland | William's Survey | 36.8352 | -79.3351 | 1413.29 | 23 |
| DP-479 | Upland | William's Survey | 36.8357 | -79.3347 | 1413.29 | 23 |
| DP-480 | Wetland | William's Survey | 36.7799 | -79.3861 | M-0307 1408.80 | 19,20 |
| DP-481 | Upland | William's Survey | 36.7802 | -79.3860 | M-0307 1408.90 | 19,20 |
| DP-482 | Upland | William's Survey | 36.8330 | -79.3336 | 1413.29 | 23 |
| DP-483 | Wetland | William's Survey | 36.6630 | -79.5126 | 1397.8 | 10 |
| DP-488 | Upland | William's Survey | 36.7876 | -79.3852 | M-0437 1409.50 | 20 |
| DP-489 | Wetland | William's Survey | 36.7880 | -79.3849 | M-0437 1409.50 | 20 |
| DP-490 | Wetland | William's Survey | 36.7880 | -79.3847 | M-0437 1409.50 | 20 |
| DP-491 | Upland | William's Survey | 36.7880 | -79.3848 | M-0437 1409.50 | 20 |
| DP-492 | Wetland | William's Survey | 36.7880 | -79.3848 | M-0437 1409.50 | 20 |
| DP-493 | Upland | William's Survey | 36.7881 | -79.3847 | M-0437 1409.50 | 20 |