



Virginia Coastal Zone
MANAGEMENT PROGRAM

FINAL REPORT: RICHMOND REGIONAL TECHNICAL ASSISTANCE

Federal Fiscal Year 2022

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Executive Summary

Coordination and Training Meetings

On 1/25/23, PlanRVA staff provided training on urban heat island mapping and the InVEST urban cooling model. Locality staff gained a better understanding of how the InVEST urban cooling model operates and how the results from the model can be used to target or prioritize tree planting and green infrastructure projects.

On 3/17/23, Virginia Commonwealth University staff and a PhD candidate provided training on an Urban Land Evaluation and Site Assessment (uLESA) methodology and its application in the sample locations in the Richmond region. The uLESA method is being studied for use in identifying and prioritizing urban farming and community garden opportunity locations. Locality staff gained a better understanding of the LESA and uLESA methodologies as well as how they have been used in sample locations in the region. Technical assistance and application of the method was offered to locality staff by VCU representatives.

On 7/21/23 PlanRVA staff provided training on suitability mapping for utility-scale solar installations across the region. Locality staff gained an understanding of which geographic features make a site more or less attractive as a utility-scale solar installation site and how those attributes could be translated into desktop suitability analysis results to inform local planning. Locality staff were also asked to provide feedback on how features in the Richmond region should be included and weighted in a suitability analysis.

On 8/29/23 PlanRVA staff provided training on the development of a Regional Ecosystem Framework GIS layer for use in multiple regional and local planning processes. The REF, at times referred to as “Eco-Logical,” is a composite GIS layer in which several environmental and resilience features are weighted in an overlay process based on the ecosystem and conservation goals. Locality staff gained a better understanding of how the final REF will be developed and how they can use the REF to inform infrastructure routing decisions, project evaluation, and in desktop site analysis.

At all Environmental TAC meetings there is a roundtable opportunity for attendees to share and discuss local program issues. Each Env TAC agenda also includes at time for updates on PlanRVA regional projects with an opportunity for feedback and questions about progress.

PlanRVA staff coordinate meetings for the Don’t Trash Central Virginia campaign with local litter managers and campaign partners, see below for more information.

Regional Coordination and Local Technical Assistance

Local Technical Assistance

PlanRVA staff provided technical support to Hanover County by providing guidance on the development of the environmental element of the county’s Comprehensive Plan.

PlanRVA staff provided guidance to Capital Region Land Conservancy staff about available ecological valuation GIS data and past uses of the data in the region. CRLC staff would like to include state ecological and conservation models in their conservation mapping and outreach.

PlanRVA staff participate in the Plant RVA Native campaign in cooperation with VCZM Program staff and other partners in the Richmond region.

During this grant year, PlanRVA staff processed 117 environmental reviews.

Don't Trash Central Virginia Campaign

PlanRVA staff continued their work with the *Don't Trash Central Virginia* campaign and promoted regional coordination through quarterly meetings where members and partners engaged in roundtable discussions about their ongoing efforts. Additionally, PlanRVA staff provided various tools for members and partners to utilize such as social media content. PlanRVA staff continues to share information regarding local clean up events on social media platforms, as well as provides support when possible.

Lower Chickahominy Watershed Collaborative Support

PlanRVA staff maintained the LCWC SharePoint site and [webpages](#), as well as provided administrative support for Steering Committee and Workgroup meetings, intermeeting coordination with signatories and stakeholders, and related technical assistance in support of LCWC priorities.

Benefits Accrued

Throughout the year PlanRVA staff made notes about items to include in the final report. This grant term the Benefits Accrued report focuses on the [Pathways to the Future](#) regional scenario planning project.

Resilience Planning

PlanRVA staff supported regional coordination and technical work related to resilience. PlanRVA staff participate in the Virginia Coastal Resilience Technical Advisory Committee (TAC) and the Project Prioritization subcommittee. At Environmental TAC meetings, PlanRVA staff included resilience agenda items including development of the regional resilience project list (3/17/23, 7/21/23, 8/29/23) and participation in the Virginia Coastal Resilience TAC (1/25/23, 3/17/23, 7/21/23, 8/29/23). Two key resilience-related work efforts were undertaken by PlanRVA staff during the grant period. PlanRVA staff coordinated with a technical assistance team at NASA through the DEVELOP program. NASA fellows conducted pluvial flooding analysis of the Richmond region. These resilience grant funds made possible the time for coordination and expertise offered by PlanRVA staff at weekly consultation meetings during the project process. PlanRVA staff also worked on an internal team to refine and finalize the Regional Ecosystem Framework (REF) GIS data layer. The REF, previously referred to as "Eco-Logical," is a regional data layer that overlays several environmental and resilience related data sets through a process that weighs them based on ecosystem and conservation goals. The resulting data set can be used for various planning processes, from infrastructure or transportation routing decisions to desktop site analysis.

Coordination & Training Meetings

Throughout the grant year, PlanRVA staff provide coordination and training opportunities for locality staff in the region.

PlanRVA Environmental Technical Advisory Committee

PlanRVA staff hosted multiple coordination events for staff of member localities during Federal Fiscal Year 2022 (FFY22). A formal venue and forum for coordination with local staff are the PlanRVA Environmental Technical Advisory Committee (TAC) meetings. All meetings include at least one training agenda item and time for roundtable organizational updates.

On **January 25, 2023**, PlanRVA staff hosted an Environmental TAC meeting with 25 attendees. PlanRVA staff provided training on urban heat island mapping and the InVEST urban cooling model. Locality staff gained a better understanding of how the InVEST urban cooling model operates and how the results from the model can be used to target or prioritize tree planting and green infrastructure projects. The meeting agenda included the following discussions or presentations supported by this grant:

- Heat Island and Cooling Capacity Analysis Project
- Coastal Resilience Projects Update
 - *Pathways to the Future* Scenario Planning Update
 - Virginia Coastal Resilience TAC Update
 - Flood Risk Outreach Update
 - NASA Develop Project Update
 - Partner Program Updates Roundtable Discussion

On **March 17, 2023**, PlanRVA staff hosted an Environmental TAC meeting with 25 attendees. Virginia Commonwealth University staff and a PhD candidate provided training on an Urban Land Evaluation and Site Assessment (uLESA) methodology and its application in the sample locations in the Richmond region. The uLESA method is being studied for use in identifying and prioritizing urban farming and community garden opportunity locations. Locality staff gained a better understanding of the LESA and uLESA methodologies as well as how they have been used in sample locations in the region. Technical assistance and application of the method was offered to locality staff by VCU representatives.

The agenda included the following discussions or presentations supported by this grant:

- uLESA Application in the Richmond Region
- Coastal Resilience Projects Update
 - Virginia Coastal Resilience TAC participation
 - Regional Resilience Projects List and Prioritization
- PlanRVA Scenario Planning Update – *Pathways to the Future*
- Partner Program Updates Roundtable Discussion

On **July 21, 2023**, PlanRVA staff hosted an Environmental TAC meeting with 19 attendees. PlanRVA staff provided training on suitability mapping for utility-scale solar installations across the region. Locality staff gained an understanding of which geographic features make a site more or less attractive as a utility-scale solar installation site and how those attributes could be translated into desktop suitability analysis results to inform local planning. Locality staff were also asked to provide feedback on how features in the Richmond region should be included and weighted in a suitability analysis.

The agenda included the following discussions or presentations supported by this grant:

- PlanRVA Solar Suitability Analysis
- BIL & IRA Conservation, Habitat, and Resilience Funding Opportunities
- PlanRVA Coastal Resilience Projects Update
 - Virginia Coastal Resilience TAC Participation
 - Regional Resilience Projects List and Prioritization
- PlanRVA Scenario Planning Update – Pathways to the Future
- Partner Program Update Roundtable Discussion

On **August 29, 2023**, PlanRVA staff hosted an Environmental TAC meeting with 26 attendees. PlanRVA staff provided training on the development of a Regional Ecosystem Framework GIS layer for use in multiple regional and local planning processes. The REF, at times referred to as “Eco-Logical,” is a composite GIS layer in which several environmental and resilience features are weighted in an overlay process based on the ecosystem and conservation goals. Locality staff gained a better understanding of how the final REF will be developed and how they can use the REF to inform infrastructure routing decisions, project evaluation, and in desktop site analysis.

The agenda included the following discussions or presentations supported by this grant:

- PlanRVA-Eco-Logical GIS Layer Training and EnvTAC Feedback
- PlanRVA Resilience Program Projects Update
 - Critical Infrastructure Mapping
 - Heat Island and Cooling Capacity Analysis Project
 - SolSmart Program
- PlanRVA – VCR TAC participation and Coastal Resilience Projects List Update
- Partner Program Update Roundtable Discussion
- Environmental TAC Administrative items

Regional Coordination and Local Technical Assistance

PlanRVA staff provide various forms of local technical assistance and regional coordination support.

Local Technical Assistance

Hanover County Comprehensive Plan Update

PlanRVA staff provided consultative service to the Hanover County staff by advising on content and resources available to support an update to the county’s comprehensive plan, specifically the environmental chapter and related content throughout the plan. PlanRVA staff advised on available data, analysis methodologies, state agency and other organization contacts, and other information or resources that could support language, analysis or other content to be included in the plan. Specific topics addressed were ecological and land conservation data, air quality data, and state planning resources.

Capital Region Land Conservancy Mapping and Analysis Consultation

Capital Region Land Conservancy staff requested PlanRVA staff assistance understanding available ecological valuation GIS data and past analysis of the data in the region. CRLC staff would like to include state ecological and conservation models in their conservation mapping and outreach efforts. PlanRVA

staff provided advice and links to data and more information via email and a meeting. Resources discussed include PlanRVA/Richmond Regional Planning District Commission green infrastructure planning, DCR-Natural Heritage VaNLA, ConserveVirginia, and Coastal VEVA.

Waterfront Site Water Refill Station Opportunity Coordination

VCZM Program staff requested submission of waterfront recreational access sites as candidates for future provision of water bottle refill stations and accompanying data gathering and research on station use. PlanRVA staff reached out to locality Parks and Recreation department staff as well as local litter managers engaged in the Don't Trash Central Virginia campaign. City of Richmond and Charles City County staff responded with interest. PlanRVA staff worked with locality staff to gather all required information for submission of sites to VCZM.

Environmental Reviews

PlanRVA staff receive requests for environmental reviews of projects and permits from state agencies and other partners. PlanRVA staff circulate these reviews to member locality staff for comments and questions to inform the PlanRVA response to DEQ or another requesting agency. The types of reviews typically include, but are not limited to:

- **Environmental Assessments and Impact Reports** - Virginia code requires state agencies to prepare an environmental impact report (EIR) for each major state project.
- **Coastal Consistency Determinations and Certifications** - Due to receipt of Federal funds or permits, proposed projects must prove consistency with the enforceable policies of Virginia's Coastal Zone Management Program.
- **Groundwater Withdrawal Permits** - PlanRVA staff receives notice of Groundwater Withdrawal Permits in the Eastern Virginia Ground Water Management Area (GWMA). The eastern portion of PlanRVA is located in the Eastern Virginia GWMA. All jurisdictions in the Eastern Virginia GWMA are notified of pending permits as part of this process, therefore PlanRVA receives review requests for projects outside of the Richmond region. For more information about the Eastern Virginia GWMA see <https://www.deq.virginia.gov/our-programs/water/water-quantity/advisory-committees/eastern-virginia-groundwater-management-advisory-committee>.
- **Virginia Water Protection (VWP) Permits** - DEQ issues VWP Permits for activities related to the quality of surface waters in the Commonwealth including the filling, dredging, draining or excavation of wetlands, streams, or other state waters. Surface water withdrawals are also permitted through VWP permits.
- **Virginia Pollutant Discharge Elimination System (VPDES) Permits** – DEQ issues VPDES permits to any person who discharges any pollutant into surface waters of the Commonwealth from a point source.
- **State Agency grant applications for Federal funding**, including:
 - CERCLA grant funds from US EPA (Superfund programming and site remediation)
 - Virginia Coastal Zone Management Program funding from the National Oceanic and Atmospheric Administration
 - Diesel Emission Reduction Act (DERA) State Clean Diesel funds from US EPA
 - Capitalization funds for the Virginia Clean Water Revolving Loan Fund for wastewater treatment facility improvements from US EPA
- **FHWA Section 5310 funding** for projects involving transit and mobility enhancements for seniors and individuals with disabilities.

During the grant year, PlanRVA staff completed 117 environmental reviews of the following types.

- 20 Coastal Consistency Determinations and Certifications
- 7 Environmental Assessments and Impact Reports
- 52 Groundwater Withdrawal Permits
- 3 Other – National Environmental Policy Act environmental screening, Richmond MSA Climate Pollution Reduction Act application, solid waste classification exemption variance review
- 17 State agency grant applications for federal funding
- 4 Superfund grant applications
- 7 Virginia Pollution Discharge Elimination System Permits
- 3 Virginia Water Protection Permits
- 4 State Corporation Commission Application

Regional Coordination

PlanRVA staff participate in and follow local, regional, state, and national planning and coordination efforts related to Coastal issues. Information about these efforts is shared with local staff at coordination meetings.

PlanRVA staff regularly attend Virginia Coastal Zone Management Program Coastal Policy Team Meetings and Coastal Planning District Commission meetings. The training and coordination opportunities provided to the Coastal PDC staff are greatly valued and shared with locality staff in the Richmond region.

PlanRVA staff participated on the Technical Advisory Committee (TAC) for RVA H2O, the City of Richmond's integrated permit planning process. The TAC exists to allow the City and DEQ staff the opportunity to vet program elements with technical experts and stakeholders and coordinate with partners on current and future projects. Meetings were held quarterly. More information can be found on the [RVA H2O website](#).

PlanRVA staff sit on the Virginia Department of Energy's [Geologic Mapping](#) Committee. Meetings are held twice a year to prioritize geologic mapping projects across Virginia. PlanRVA staff provide a local and regional land and coastal resource planning perspective on the committee. Information gained from the meetings is shared with member localities of PlanRVA.

PlanRVA staff are working with VCZM Program staff and other regional partners to maintain the [Plant RVA Natives](#) campaign. PlanRVA is also a partner on the statewide Plant Virginia Natives campaign. The campaign encourages citizens to learn more about the importance and value of native plants and use them in landscaping. PlanRVA staff shared resources and native plant guides with the public at the Henrico Plant Native festival.

PlanRVA staff participate in two regional watershed roundtables. The northern portion of the PlanRVA region is located in the York River watershed. PlanRVA staff participate in the York River & Small Coastal Basins Roundtable attending all-hands meetings and occasionally providing updated presentations about activities at the PDC. PlanRVA staff also attended this year's Upper and Middle James Riparian Consortium Roundtable, which covered topics including the history of the James River, current Atlantic

Sturgeon research, invasive species management, and citizen science. PlanRVA staff are currently exploring the possibility of becoming a partner of The Riparian Consortium.

Don't Trash Central Virginia

Don't Trash Central Virginia is an anti-litter campaign for the central Virginia region that approximately coincides with the [Central Virginia Waste Management Authority service area](#). The campaign was first brought to PlanRVA by Litter Managers of several localities in the region. While interested in cooperating on an anti-litter message campaign, they lacked the resources and organization to run a regional campaign. Since this initial outreach, PlanRVA has supported the *Don't Trash* campaign seeking funding and a broader community support for the message. The [campaign](#) has a series of pages on the PlanRVA website. PlanRVA staff produce content for campaign members and partners to utilize online, in print, and on social media. PlanRVA staff host campaign meetings, typically on a quarterly basis, for collaboration, information sharing, and networking among campaign [members](#) and [partners](#). Campaign members include representatives from governments in the region, including nine localities as well as the Chickahominy Indian Tribe. There are currently nine campaign partners, which include local businesses and organizations. PlanRVA staff create customized logos for each member and partner to use on their materials related to litter. Each logo includes *Don't Trash* for consistency. An example of a *Don't Trash* partner logo is included below.



Figure 1 Don't Trash Central Virginia campaign logo



Figure 2 Don't Trash campaign sample partner logo for GRTC

Campaign Content

PlanRVA staff create content for the *Don't Trash* campaign; it is posted to the [PlanRVA Facebook page](#) every two weeks and shared with campaign members and partners via a SharePoint site. Most of the social media content produced by PlanRVA staff for the campaign is provided to campaign members and partners in seasonal media toolkits. The toolkits are previewed at quarterly campaign meetings and posted to the *Don't Trash* SharePoint site once finalized. The seasonal toolkits have been used to promote different 'pushes' that motivate members, partners, and the public to stay involved. Each toolkit includes social media posts (including both general litter awareness posts and seasonally themed posts), any newly produced *Don't Trash* flyers, and a link to the *Don't Trash* anti-litter pledge. Examples of *Don't Trash* social media content produced during the grant term are included in Appendix A.

Promoting the Campaign

PlanRVA staff promote the *Don't Trash* campaign by attending public events around the region to raise awareness of the many negative impacts of litter and marine debris. PlanRVA staff hand out campaign-branded items to promote the campaign among the general public. Items distributed include stickers, car litter bags, reuseable grocery bags, reuseable water bottles, and trash grabbers. PlanRVA staff attended the following events and distributed *Don't Trash* items during the grant term. At all events PlanRVA staff spoke to attendees about the goals of the *Don't Trash* campaign and provided general education about the impacts of litter.

- **Richmond Flying Squirrels Earth Day Game** – Richmond – April 22, 2023
- **Richmond Flying Squirrels: RVA Day Game** – Richmond – May 19, 2023
- **Richmond Kickers RVA Community Night Game** – Richmond – August 30, 2023
- **Richmond Flying Squirrels RVA Community Night Game** – Richmond – September 6, 2023
- **Richmond Kickers Noche de la Herencia Hispana Game** – Richmond – September 23, 2023
- **Plant! Native Festival** – Henrico – October 21, 2023

Campaign Coordination Meetings

On November 2, 2022 PlanRVA staff hosted a coordination meeting for *Don't Trash* campaign members and partners. PlanRVA staff shared a fall media toolkit, including a litter Bingo challenge, for promotion on social media. PlanRVA staff reviewed priorities for energizing and growing the campaign. Brian Bell with Keep Virginia Cozy provided highlights about RVA Rapid Transit's Adopt-A-Stop initiative. The meeting concluded with next steps for the campaign and an opportunity for member and partner program updates.

On February 14, 2023 PlanRVA staff hosted a coordination meeting for *Don't Trash* campaign members and partners. Cristi Lawton, Executive Director of Keep Virginia Beautiful, provided a presentation about KVB's Cigarette Litter Prevention, Green Grants, and the Great Virginia Green Up programs. PlanRVA staff provided a new media toolkit and highlighted a Don't Trash public service announcement to be played on Audacy radio stations in the Richmond region. The meeting concluded with next steps for the campaign and an opportunity for member and partner program updates.

On May 26, 2023 PlanRVA staff hosted a coordination meeting for *Don't Trash* campaign members and partners. PlanRVA staff discussed how the Community Engagement staff team at PlanRVA would be playing a larger support role for the campaign. PlanRVA staff reviewed a new media toolkit and upcoming events. The meeting concluded with next steps for the campaign and an opportunity for member and partner program updates.

On September 20, 2023 PlanRVA staff hosted a coordination meeting for *Don't Trash* campaign members and partners. PlanRVA staff highlighted some new staffing updates and other administrative details. PlanRVA staff reviewed the new media toolkit and discussed themes and ideas for upcoming toolkits. The meeting concluded with next steps for the campaign and an opportunity for member and partner program updates. Updates shared included several upcoming events and intended uses for the toolkit materials including County billboards and promotional items events.

Marine Debris

The *Don't Trash* campaign suite of web pages developed by PlanRVA staff includes [content](#) to educate the public about marine debris. It is important that residents of the Richmond region understand how their actions contribute to the issue of marine debris. The web content makes clear that litter on land is only one rainstorm away from becoming marine debris in nearby waterways and beyond. The web content also explains the harms of marine debris for water quality and local ecosystems. Links to existing resources developed by the Virginia CZM Program and others in the state working on marine debris are also included. A social media post was published in June 2023 providing the definition of marine debris and describing types of litter and how it travels from land-based sources ultimately ending up in waterways. The post directed the audience to various resources for more information on marine debris and how to address it in their communities.

Lower Chickahominy Watershed Collaborative Support

In late 2016 PlanRVA received a 309 grant from the Virginia Coastal Zone Management Program to undertake a multi-year project focused on the lower Chickahominy River watershed. The goal of the project was to work with stakeholders to develop and adopt policies that would accomplish both natural resource conservation and sustainable economic development. Three counties constitute the watershed: Charles City, James City, and New Kent. Three recently federally recognized Tribes were

included in the study area footprint: Chickahominy Indian Tribe, Chickahominy Indian Tribe – Eastern Division, and the Pamunkey Indian Tribe.

The project prioritized the relationship of the Tribes and counties in pursuit of the creation of a regional organization focused on the watershed to support eco-tourism, natural resource conservation, and sustainable economic development. That focus led to the creation of the Lower Chickahominy Watershed Collaborative (LCWC) Memorandum of Understanding (MOU) and the committee structure of the LCWC to carry actions forward. The LCWC MOU was signed by the three counties, three Tribes, and two planning district commissions with a full or partial footprint in the project area. Other partners wishing to support the LCWC can sign a formal Supporting Cooperative Partner Statement and/or participate on any of the LCWC Workgroups: Land Conservation and Ecological Stewardship, Recreational Infrastructure and Marketing, and Sustainable Economic Development and Protection of Tribal Sites and Traditions.

Steering Committee

The LCWC Steering Committee aims to meet biannually. The Steering Committee is composed of staff of the LCWC MOU signatories. The purpose of the Steering Committee is to oversee and provide guidance to the Workgroups about how activities should move forward. PlanRVA staff schedule, host, and facilitate Steering Committee meetings. During this grant term, PlanRVA used grant funds to support one Steering Committee meeting on September 29, 2023. PlanRVA staff began the meeting with some administrative matters: new staffing updates, future meeting planning, and task tracking suggestions across workgroups. The bulk of the agenda was a facilitated discussion seeking input and guidance from steering committee members about key priorities and tasks of the Workgroups. Discussion focused on actions related to consideration of launches that need repair, possible promotion of sustainable economic development opportunities in the watershed region, and creation or promotion of tourist packages in the region.

Workgroups and Priorities

The LCWC Workgroups meet quarterly. Workgroups are composed of staff of the LCWC MOU signatories as well as staff of partner agencies relevant to each workgroup topic area. Examples of these partner agencies include state agencies, land conservancies, academia, and other organizations. Each workgroup has a set of key priorities that aim to advance the goal of economic development and natural resource conservation in the watershed. The following are the three workgroups and their corresponding key priorities as worded at the conclusion of the grant term:

Land Conservation and Ecological Stewardship:

Key Priority 1: Develop watershed-wide policies/ programs for improving data on contiguous forest blocks. Increase geospatial mapping and access to data.

Key Priority 2: Enhance public education efforts for Family Legacy and Forest Conservation. Conduct Generation Next landowner education programs emphasizing underserved communities.

Key Priority 3: Collaborate to support land acquisition for land conservation, including for Tribal acquisition.

Key Priority 4: Establish policies to better support “living shorelines” for river restoration projects.

Recreational Infrastructure and Marketing:

Key Priority 1: Develop watershed-wide policies/ programs to expand on the Virginia Capital Trail by creating spur trails from the existing trail.

Key Priority 2: Make recommendations regarding infrastructure improvements that will support and encourage growth of the ecotourism industry in the LCW counties.

Key Priority 3: Develop an app that provides all appropriate ecotourism opportunities and historic landmarks/other educational features.

Key Priority 4: Develop programs to better educate recreationists about water safety and to enforce existing safety and boating regulations and establish a buoy system for safety.

Sustainable Economic Development and Protection of Tribal Sites and Traditions:

Key Priority 1: Develop watershed-wide policies and programs that support using the river as a "soft" economic driver for activities such as ecotourism, ecological tours, fishing, and fish farming.

Key Priority 2: Combine different types of tourism experiences to create larger tourist packages.

Key Priority 3: Develop watershed-wide programs to educate residents and visitors about sustainable economic development and its impact on ecological integrity and natural resources. Integrate into each county's comprehensive plan.

Key Priority 4: Develop watershed-wide policies and programs to systematically integrate Tribal and other history into public access points including family-owned fishing industries.

Key Priority 5: Engage stakeholders in how local and Tribal history can be integrated into the three county Comprehensive Plans for both ecological significance and sustainable business opportunities.

Workgroup Meetings

PlanRVA staff schedule, host, and facilitate all Workgroup meetings. PlanRVA staff also maintain a strategy and activity progress chart on the LCWC SharePoint site. This chart allows all those with access to see what is in progress and the next steps planned for each strategy. PlanRVA staff utilize the chart to plan Workgroup meetings and coordinate with Workgroup members in between meetings. Workgroup meetings hosted by PlanRVA during this grant term include:

Land Conservation and Ecological Stewardship

November 14, 2022 Meeting:

- The meeting agenda included a review of previous workgroup discussions; a review of Workgroup priorities, actions, and tasks; and open discussion.
- At the conclusion of the meeting the following next steps were identified:
 - PlanRVA staff to meet with Danielle Simms with DEQ regarding EJ work in the region. PlanRVA staff to provide the group with an update following the meeting.
 - PlanRVA staff to connect with DOF to ask for an update from the November 2022 Generation NEXT workshop and will share with the group.
 - Workgroup members to add any potential land conservation groups and funding streams to a spreadsheet that will support coordination of a regional conversation about identifying lands for conservation, funding sources, and organizations.

March 15, 2023 Meeting:

- The meeting agenda included a review of previous workgroup discussions; a review of Workgroup priorities, actions, and tasks; and open discussion.
- At the conclusion of the meeting the following next steps were identified:
 - PlanRVA staff to undertake a DOF-funded heat island mapping and cooling capacity analysis project, provide updates to the Workgroup as the project progresses
 - PlanRVA staff to create a matrix of ecological and forest GIS data to share with the Workgroup
 - PlanRVA staff to work with DCR-SEAS and Colonial SWCD on promotion of living shoreline project implementation
 - PlanRVA staff to support Lower Chickahominy region conversations about land conservation funding and opportunities.

Recreational and Infrastructure Marketing

October 26, 2022 Meeting:

- The meeting agenda included a review of previous workgroup discussions; a review of Workgroup priorities, actions, and tasks; and open discussion.
- At the conclusion of the meeting the following next steps were identified:
 - PlanRVA staff to provide presentation/information at the next Workgroup about plans for spur trails and other bike-pedestrian infrastructure in the watershed region, including possibilities that intersect with Dominion or utility right of way.
 - PlanRVA staff to reach out to Dominion staff about trial opportunities and planning requirements.
 - The Workgroup expressed interest in improvements to a resilience assessment in line with analysis conducted by Department of Wildlife Resources staff.
 - PlanRVA staff to work on putting together a document with a list of existing apps or resources that are relevant to our work to determine any gaps or opportunities for the development of a watershed specific app.

March 29, 2023 Meeting:

- The meeting agenda included a review of previous workgroup discussions; a review of Workgroup priorities, actions, and tasks; and open discussion.
- At the conclusion of the meeting the following next steps were identified:
 - PlanRVA staff to update watershed region resilience assessment and share with the Workgroup upon completion
 - PlanRVA staff to continue to collect and update information about eco-tourism and other related industry service providers and business in the watershed region
 - PlanRVA staff to consider next steps on bike and pedestrian facility opportunities in the watershed region.

Sustainable Economic Development and Protection of Tribal Sites and Traditions

November 1, 2022 Meeting:

- The meeting agenda included a review of previous workgroup discussions; a review of Workgroup priorities, actions, and tasks; and open discussion.
- At the conclusion of the meeting the following next steps were identified:
 - PlanRVA staff will start to inventory existing tourist packages in the watershed and members will share any information with them pertaining to this.
 - PlanRVA staff and Jeff Flood will begin to review county Comprehensive Plans to determine where to best integrate Tribal history.
 - PlanRVA staff will follow up with James Vonesh about the work his class is doing in the watershed.

March 13, 2023 Meeting:

- The meeting agenda included a review of previous workgroup discussions; a review of Workgroup priorities, actions, and tasks; and open discussion.
- At the conclusion of the meeting the following next steps were identified:
 - PlanRVA staff to reach out to Plantations about possible interpretive signage opportunities.
 - VCZM Program staff and Chickahominy Indian Tribe staff to discuss and coordinate on mapping of historic villages.
 - PlanRVA staff to compile information on tourism packages and resources about destinations in the Lower Chickahominy watershed region.
 - PlanRVA staff to review local comprehensive plans and look for opportunities for integration of information about Tribal history and culture.
 - PlanRVA staff to work with Tribal staff in drafting a letter about cooperation on development and updating of local comprehensive plans.

Online Content and Resources

PlanRVA staff maintains a Lower Chickahominy Watershed Collaborative SharePoint site for all members of the collaborative to use as a resource. The SharePoint site includes a member directory, a copy of the MOU, notes from workgroup and steering committee meetings, and watershed related resources. In addition to the LCWC SharePoint site, PlanRVA staff maintains multiple webpages dedicated to the Lower Chickahominy watershed and an overview of the project and Lower Chickahominy Watershed Collaborative. The webpage structure and their corresponding links are as follows:

- [The Watershed](#)
 - [Environment](#)
 - [History & Culture](#)
 - [Land & Water Use](#)
- [The Project](#)
 - [Economic Study](#)
 - [Recreation and Ecotourism](#)

- [Outreach](#)
- [The Collaborative](#)
 - [Partners](#)

Technical Assistance

In addition to the contributions of assistance by Workgroup members, PlanRVA staff provide technical assistance to the LCWC to advance actions of key strategies. Below are technical assistance activities PlanRVA staff undertook during the grant term.

Outreach and Gathering Information about Bike and Pedestrian Infrastructure – PlanRVA staff reached out to Dominion to ascertain steps in coordinating trail and infrastructure interactions with transmission towers or rights of way. PlanRVA staff gathered and presented GIS data and links to for the Recreational Infrastructure and Marketing Workgroup.

Lower Chickahominy Recreational Access Infrastructure: Resilience Analysis and Discussion – Discussions were held in workgroup meetings regarding the current and future conditions of recreational and river access sites along the Lower Chickahominy River. PlanRVA's Chickahominy Resilience Assessment (produced with funding through another grant) was shared with workgroup members, and discussions were held regarding the data. Potential impacts of sea level rise and flooding to access points along the river were discussed between localities, nonprofits, and tribes. The condition of river access points and recreational infrastructure will be an ongoing discussion topic within the LCWC, with monitoring and response to future conditions as points of consideration.

Forest & Ecological GIS Data – A matrix of data resources available through state government agencies was compiled by PlanRVA staff. These resources include information on forest blocks, habitat, wildfire, development vulnerability and other conservation planning areas. This matrix can be used in conversations regarding ecological protection and economic development in the watershed, as well as for any outside uses that members of the LCWC require. The matrix is available on the LCWC SharePoint.

Updates and maintenance of an ecotourism operators inventory —PlanRVA staff updated a list of ecotourism operators in the Lower Chickahominy watershed developed during a previous grant term. The list includes the name of the operator, its location, its owner, and a link to resources. The file was made available on the LCWC SharePoint site.

Compile land acquisition contact and funding stream information—To support a key strategy of the Land Conservation and Ecological Stewardship Workgroup, PlanRVA staff is in the process of compiling organizations with access to land acquisition funding or a role to play in the process. General information about funding streams was also gathered. This information was collected into a spreadsheet and shared on the project SharePoint site.

Benefits Accrued – Pathways to the Future, Scenario Planning in RVA

For years PlanRVA has conducted coastal resource mapping and analysis in the Richmond region funded in part by CZM-Technical Assistance and Focal Area grants. In federal fiscal years 2008 – 2010, PlanRVA staff worked with Crater PDC, Green Infrastructure Center, Inc., and member localities in addition to other partners to map and analyze green infrastructure in the Richmond region. DCR-Natural Heritage

GIS model data was updated and utilized in several projects. In the ensuing year, PlanRVA continued to update and utilize the Natural Heritage model data as well as other coastal resource data to analyze and support planning in the Richmond region. In federal fiscal year 2016 PlanRVA staff worked with locality staff and other partners to map conserved land in the Richmond region. Through the Resilience Focal Area grants, federal fiscal years 2020 – 2022, PlanRVA established a base in coastal resilience planning for the region. PlanRVA staff worked with member localities and regional partners to identify regional resilience priorities and projects. PlanRVA staff added resilience-related content to the PlanRVA website. PlanRVA staff coordinated with various state agencies to support the development of the Virginia Coastal Resilience Master Plan. PlanRVA staff worked across internal departments to discuss improved integration of resilience considerations and data in all regional planning activities.

All the previously mentioned projects have been fed into PlanRVA's [Pathways to the Future](#) scenario planning project. Pathways to the Future is a project through which an interconnected suite of models are being developed to support regional planning at PlanRVA. In addition to the models themselves, a set of future development scenarios have been described and will be run through the models. The output from the models will enable planners at PlanRVA as well as member localities to better understand possible future conditions.

Three models were developed using data or knowledge gained from the Coastal Program-funded project listed above.

- Land Cover model
- Pollutant Runoff Loading Model
- System Resiliency Model

A graphic illustrating the connections of outputs and inputs among the models is included below in Figure 3.

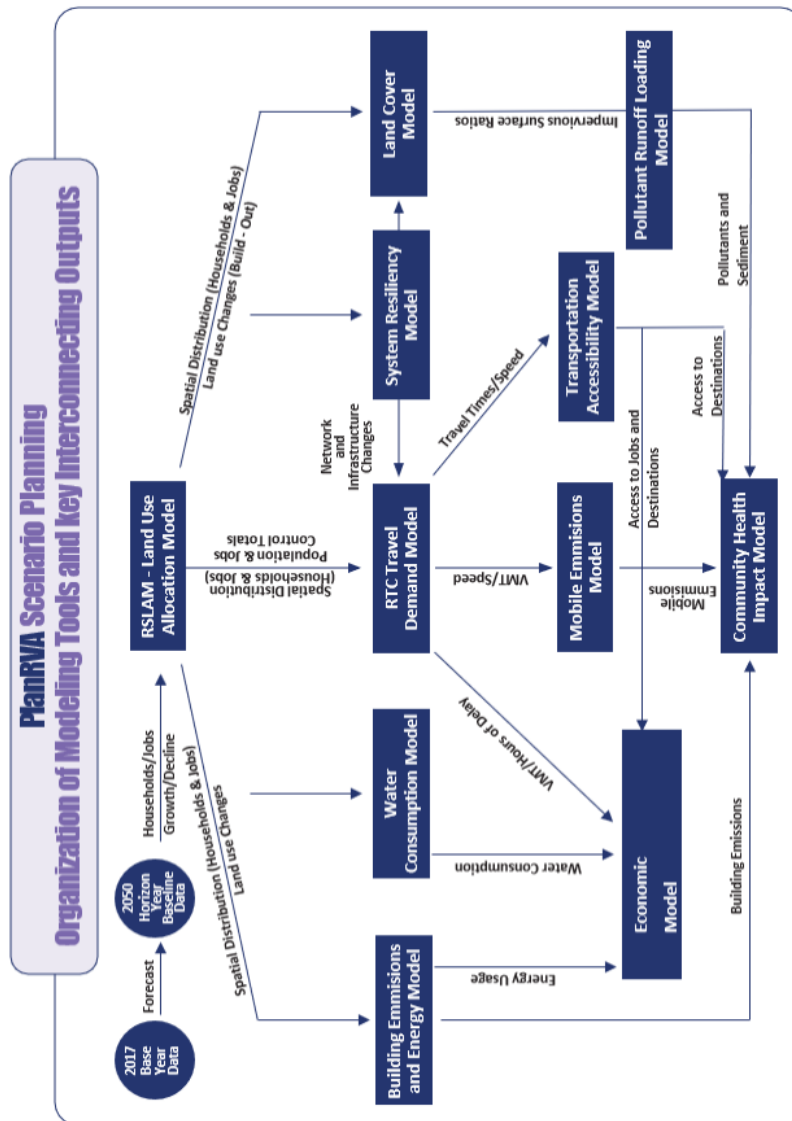


Figure 3 Pathways to the Future interconnected model suite

The first use of these models will be to update the Richmond Regional Transportation Planning Organization's Long Range Transportation Plan. The models will be used to describe possible future conditions and to evaluate projects for inclusion in the plan.

Resilience Planning

PlanRVA staff advanced regional resilience planning the Richmond region working with locality staff and other partners.

Regional Resiliency Coordination and Assistance

PlanRVA has identified the Environmental TAC as the primary engagement body for resilience planning. Resilience informational items and coordination discussions are included on Environmental TAC agendas throughout the year. During this grant term, resilience agenda items on Environmental TAC agendas included:

- January 25, 2023 Environmental TAC meeting
 - Virginia Coastal Resilience TAC Update
 - PlanRVA staff reviewed Resilience Planning accomplishments of the prior year and provided an overview of plans for calendar year 2023.
- March 17, 2023 Environmental TAC meeting
 - Discuss regional resilience projects and approach to project prioritization
- July 21, 2023 Environmental TAC meeting
 - Virginia Coastal Resilience TAC Update
 - Discuss regional resilience projects
- August 29, 2022 Environmental TAC meeting
 - Virginia Coastal Resilience TAC Update
 - Discuss regional resilience projects submission to the Virginia Coastal Resilience Web Explorer database

Throughout the grant term PlanRVA staff discussed resilience data and knowledge gaps internally, with local staff and other partners at Environmental TAC meetings, and in between meetings via calls and emails. Improving regional data and knowledge is being integrated into the PlanRVA work plan. The following are examples of projects for which a need was previously identified and the present capacity of at least one staff member on the project team is funded in part by Resilience Focal Area grant funds.

NASA Develop Pluvial Flood Analysis

PlanRVA staff identified pluvial flood risk data as a gap in the region. PlanRVA staff applied to the [NASA Develop](#) program for technical assistance on the development of pluvial flood data and modeling. NASA Develop is a technical assistance program through which communities can propose projects utilizing NASA geospatial data. Those chosen are undertaken by a team of Develop Fellows during a 10-week project timeline. Technical assistance is provided free of charge to the requesting community, however, community staff or representatives must meet with and provide information to the NASA Develop Team during a project planning window and throughout the project timeline. A NASA Develop Team undertook the PlanRVA pluvial flood analysis project during the summer of 2023. PlanRVA staff provided the Fellows Team with underlying land cover, land use, and other community characterization

data for the region. The Fellows Team used NASA data rainfall and topographic data to conduct a “blue spot” analysis of the region. Blue spots are areas where rainwater is likely to pool. PlanRVA staff provided road closure due to flooding data to the Develop Team for model calibration.

The pluvial flood data will be released for use by PlanRVA in late 2023 or early 2024, after completion of the NASA QA/QC vetting and finalization process. PlanRVA staff intend to use the pluvial flood risk data in several regional planning processes (long range transportation plan, hazard mitigation plan) as well as for further analysis and outreach efforts, such as in environmental justice communities.

Regional Ecosystem Framework GIS Data

PlanRVA staff worked internally to refine a GIS overlay model that combines various environmental and resilience related data in the region through a weighted overlay analysis. The resulting data layer is called the Regional Ecosystem Framework (REF). PlanRVA staff plan to use the REF in various regional planning processes from transportation project evaluation and scoring to the basis for an anticipated regional green infrastructure plan update.

The REF uses [ConserveVirginia](#) layers as a base and adds all streams and waterbodies as well as existing conserved lands and easements. After the overlay process, the resulting map indicates geographic features values based on ecosystem and conservation goals in the region and the state.

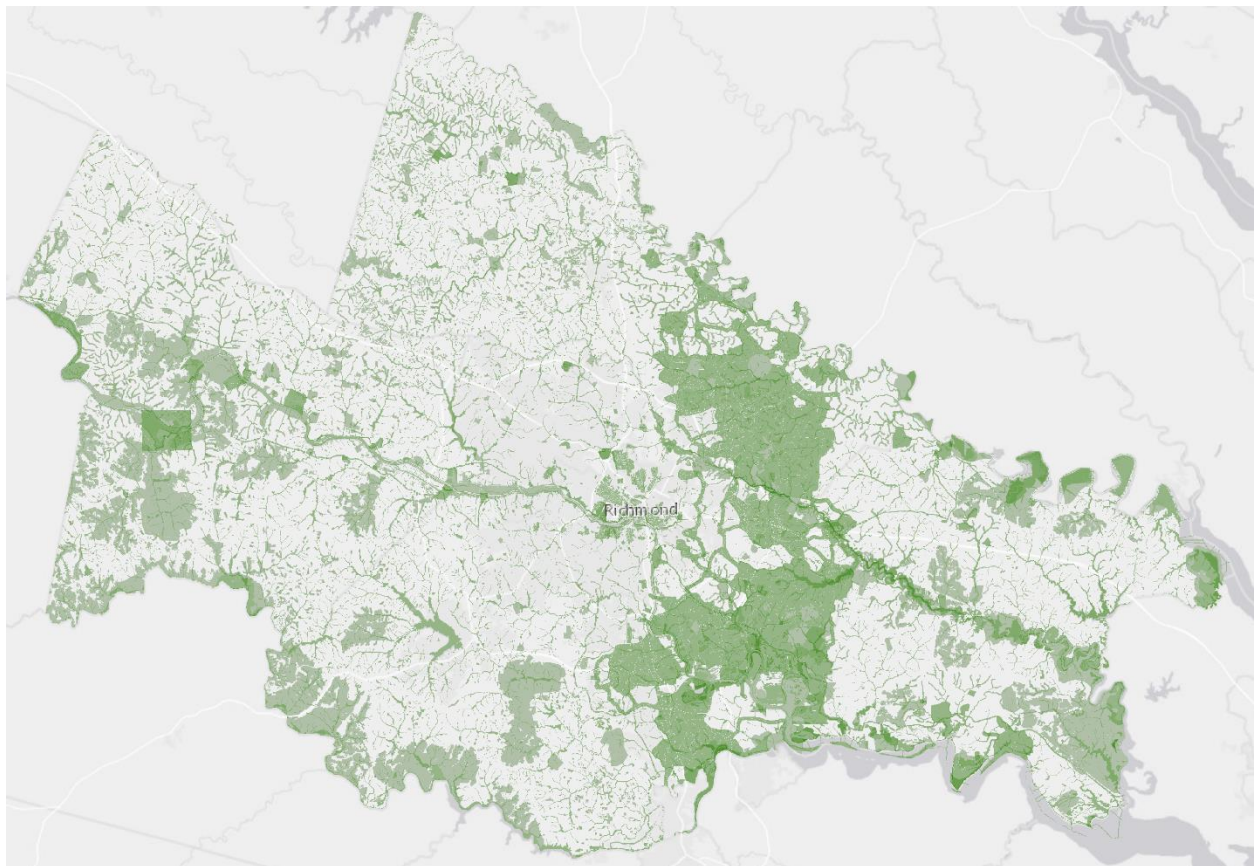


Figure 4 PlanRVA REFS GIS layer, August 2023

Solar Suitability Analysis

The Solar Suitability Analysis is currently underway. Version 1 should be finalized in late calendar year 2023. The regional solar suitability analysis considers geographic features that make the development of large-scale solar installations more or less likely and more or less suitable across the landscape. In brief, this analysis helps planners see where large-scale solar installations should not go and where they may make the most sense. This data can help local and regional planners better able to protect valuable environmental resources and avoid or mitigate land use conflicts. Geographic features included in the analysis include:

- Conserved lands
- Easements
- Agricultural-Forestal Districts
- Transmission Lines
- Slope
- Land cover
- Land use
- Floodplains
- Endangered species and community areas

An update on this work will be provided in the federal fiscal year 2023 final report.

Regional Resilience Priority Ranking

During previous resilience focal area grant terms, PlanRVA staff worked with locality staff and other partners in Environmental TAC to craft a [regional vision and definition](#) of resilience in the Richmond region. Underpinning the vision and definition are regional resilience priorities. Resilience priorities are natural, social, and economic conditions that challenge or support regional resilience. Each priority has localized and/or regional resilience impacts. During federal fiscal year 2022, PlanRVA staff reached out to locality staff and other partners to identify additional regional resilience projects that align with the regional resilience priorities and could be submitted to DCR for inclusion in the Coastal Resilience Web Explorer database.

At first, PlanRVA staff considered ranking regional resilience projects into priority tiers according to the regional resilience priorities. However, that approach was ultimately set aside due to its complexity, demands on staff time, and a lack of need for fine scale prioritization given the structure of the Coastal Resilience database.

PlanRVA staff conducted internal discussion on how resilience prioritization could factor into regional planning process. At this time, no methodology has been finalized for use, other than the elements mentioned above, such as REF.

Resilience Database Support

PlanRVA staff entered regional resilience projects into the template reporting spreadsheet provided by DCR staff. PlanRVA staff also created GIS data for all new project to be uploaded into the Coastal Resilience Web Explorer database. The resilience projects spreadsheet and associated GIS data were provided to DCR staff in September 2023 (Figure 5 & 6).

- September 19, 2023 – Virginia Coastal Resilience TAC meeting

In December 2022 and January 2023, PlanRVA shared public input on DCR's Community Outreach and Engagement Plan that will inform the development of the Virginia Flood Protection Master Plan and updated phases of the Virginia Coastal Resilience Master Plan.

Appendix A: Samples of *Don't Trash Central Virginia* Campaign Materials

Samples of Don't Trash Campaign Social Media Materials

Be Part of the Solution, Not the Pollution.

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Where the region comes
together to look ahead.

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Cover Your Load!



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**As much as 80 percent of marine debris
comes from land-based sources, such as
plastic bags and food containers.**

Source: Virginia Department of Environmental Quality

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You're not a tree...

don't drop it on the ground!

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trash 
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