Appendix A: Signed PDC MOU'S

Memorandum of Understanding (MOU)

Between:
Middle Peninsula Planning District Commission (MPPDC)
&
Accomack-Northampton Planning District Commission (A-NPDC)

For:
The Virginia Department of Environmental Quality's Virginia Coastal Zone Management Program (CZM)
Grant #: NA23NOS4190255, Grant Year 2023, Task #: 91.01 "*Working Waterfront Assessment*"

This Memorandum of Understanding (MOU) outlines the terms of agreement between the Middle Peninsula Planning District Commission (MPPDC; herein referred to as the "lead PDC"), acting as management agent on behalf of Accomack-Northampton Planning District Commission (A-NPDC; herein after referred to as "partner PDC".

CONTRACTUAL SERVICES

	Contractual Worksheet			
Category	**Federal**	**Match**	**Total**	**Budget Narrative**
Personnel	$10,000		$10,000	Each Partner PDC will receive $10,000 as a fee for service contract.
Fringe			$0	
Travel			$0	
Equipment			$0	
Supplies			$0	
Contractual			$0	
Construction			$0	
Other			$0	
Total Direct Costs	$10,000	$0	$10,000	
Indirect Costs			$0	
Total	$10,000	$0	$10,000	

JUSTIFICATION: Lead PDC staff will have a contract with the partner PDC to complete project deliverables. Partner PDC will be contracted for 12 months (Oct 2023 to September 2024). Lead PDC staff will have regular check-ins with partner PDC to get updates on the progress of deliverables. Please note that there are no fringe costs for contractual included in the table above because the lead PDC will pay contractors one lump sum for services.

REIMBURSEMENT

Reimbursement is dependent upon the partner PDC meeting the following requirements:

1) Attendance as necessary at meetings and collaboration on all aspects of the project;
2) Comply with the parent contract between the lead PDC and Coastal Zone Management Program (CZM) including submitting all necessary attachments/forms. (see attachments);
3) Completing deliverables listed below under *DELIVERABLES;*

Submission of SEMIANNUAL Progress Reports, where the partner PDC completes a collaborative one drive document administered by the lead PDC;

Invoicing Schedule:	
Period	**Due Date to Lead PDC**
10/1/23 to 3/31/24	4/8/2024
4/1/24 to 9/30/24	10/8/2024
10/1/24 to 11/15/24	10/15/2024

*Final invoice must be dated no later than 9/30/2024

Reporting Schedule:			
Report	**Report Period**	**Due Date to Lead PDC**	**Required Elements**
1st Semiannual Report	10/1/23 to 3/31/24	4/8/2024	Complete Progress Reports via one drive link
2nd Semiannual Report	4/1/24 to 9/30/24	10/8/2024	Complete Progress Reports via one drive link
Closeout Period	10/1/24 to 11/15/24	10/15/2024	Project Summary, Deliverables, submitted via one drive link

DELIVERABLES/PRODUCTS

For specific details, refer to the attached Virginia Coastal Zone Management Program (CZM) Grant #: NA23NOS4190255, Grant Year 2023, Task #: 91.01 "Working Waterfront Assessment"

Product #1

Title: **MOU Development Between Working Waterfront Executive Committee Members**

Percent total project budget: 20%

Description: The Working Waterfront Executive Committee will include staff from the Lead PDC, Partner PDC's and the Virginia Coastal Zone Management Program (Virginia CZM). This Committee was originally **established under CZM's FY 14 Task 92** and will convene to develop an MOU for identifying 5 +/- working waterfronts in each PDC suffering from flooding. The MOU will define deliverables, administration, and reimbursement terms and conditions. Each participating PDC will be given an opportunity to opt in or out prior to the request to execute the MOU before commencing work.

Product Format: Word or PDF document of MOU.

Timeframe: *Start:* 10/1/23

End: 12/1/23

Product #2

Title: **Working Waterfront Site Assessment Methodology**

Percent total project budget: 20.6%

Description: Lead PDC staff will develop a draft methodology for consideration by the Working Waterfront Executive Committee to ensure standardization of site assessment and cost estimates produced. Each partner PDC will apply the same methodology to the 5+/- per PDC working waterfronts identified. Each PDC may use their sub consultant funds how they determine best for the assessment (inhouse staff or sub-sub consultant).

Product Format: Word or PDF document of the assessment methodology.

Timeframe: *Start:* 10/1/23

End: 9/30/24

Product #3

Title: **Assessment of 20+/- Working Waterfront Sites Subject to Flooding**

Percent total project budget: 47.4%

Description: Lead PDC staff will provide each participating partner PDC instructions for how to organize PDC specific results. Lead PDC will receive assessments from each participating PDC and assemble results into a final report detailing the assessment findings and cost estimates. This report will be shared with staff overseeing the development of the VCRMP at DCR for consideration. Each participating PDC can assess public and/or private working water front sites for resilience needs. The site assessments can be done remotely (desktop only) or utilizing site visits as necessary. PDCs are encouraged to interact with property owners directly during the assessment process to ascertain specific site information, understand the property owner's desire and financial ability to address the needs, and to educate the property owner of available resources that are known to the PDC to address their needs (e.g. DCR SEAS free consultation, any known grant/loan funding, etc.).

Product #4

Title: **Project Entry into the Resiliency Project Database Methodology**

Percent total project budget: 12%

Description: The Lead PDC and Partner PDCs will submit **public** sites with enough information to meet the criteria for entry into the VCRMP/DCR database in a table format to CZM staff. The PDCs will work with DCR staff to ensure appropriate information is captured for entry. CZM staff will enter the projects into the DCR resilience project database. Privately owned sites do not need to be submitted for entry into the database. Each Partner PDC should be aware of the need to develop a specific PDC Resiliency Plan(s) according to the criteria established by DCR. Each PDC must have a DCR-approved Resiliency Plan in place as a requirement to make application to DCR for funding of the resiliency project.

Product Format: Documentation of discussions between the PDCs and Virginia CZM, references to the DCR Round 4 Manual, and a description of the reporting methodology will be provided in the final report (Word or PDF document).

Timeframe: *Start:* 10/1/23

End: 9/30/24

ACCEPTED BY:

Partner PDC: Accomack-Northampton Planning District Commission (A-NPDC)

By: Elaine K. N. Meil, Executive Director

Elaine K. N. Meil

Date: 12/13/23

Lead PDC: Middle Peninsula Planning District Commission (MPPDC)

By: Lewis L. Lawrence, Executive Director

Date: 1/2/24

Memorandum of Understanding (MOU)

Between:
Middle Peninsula Planning District Commission (MPPDC)
&
Hampton Roads Planning District Commission (HRPDC)

For:
The Virginia Department of Environmental Quality's Virginia Coastal Zone Management Program (CZM)
Grant #: NA23NOS4190255, Grant Year 2023, Task #: 91.01 *"Working Waterfront Assessment"*

This Memorandum of Understanding (MOU) outlines the terms of agreement between the Middle Peninsula Planning District Commission (MPPDC; herein referred to as the "lead PDC"), acting as management agent on behalf of Hampton Roads Planning District Commission (HRPDC; herein after referred to as "partner PDC").

CONTRACTUAL SERVICES

	Contractual Worksheet			
Category	**Federal**	**Match**	**Total**	**Budget Narrative**
Personnel	$10,000		$10,000	Each Partner PDC will receive $10,000 as a fee for service contract.
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REIMBURSEMENT

Reimbursement is dependent upon the partner PDC meeting the following requirements:

1) Attendance as necessary at meetings and collaboration on all aspects of the project;
2) Comply with the parent contract between the lead PDC and Coastal Zone Management Program (CZM) including submitting all necessary attachments/forms. (see attachments);
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DELIVERABLES/PRODUCTS

For specific details, refer to the attached Virginia Coastal Zone Management Program (CZM) Grant #: NA23NOS4190255, Grant Year 2023, Task #: 91.01 "Working Waterfront Assessment"

Product #1

Title: **MOU Development Between Working Waterfront Executive Committee Members**

Percent total project budget: 20%

Description: The Working Waterfront Executive Committee will include staff from the Lead PDC, Partner PDC's and the Virginia Coastal Zone Management Program (Virginia CZM). This Committee was originally established under CZM's FY 14 Task 92 and will convene to develop an MOU for identifying 5 +/- working waterfronts in each PDC suffering from flooding. The MOU will define deliverables, administration, and reimbursement terms and conditions. Each participating PDC will be given an opportunity to opt in or out prior to the request to execute the MOU before commencing work.

Product Format: Word or PDF document of MOU.

Timeframe: *Start:* 10/1/23

End: *12/1/23*

Product #2

Title: **Working Waterfront Site Assessment Methodology**

Percent total project budget: 20.6%

Description: Lead PDC staff will develop a draft methodology for consideration by the Working Waterfront Executive Committee to ensure standardization of site assessment and cost estimates produced. Each partner PDC will apply the same methodology to the 5+/- per PDC working waterfronts identified. Each PDC may use their sub consultant funds how they determine best for the assessment (inhouse staff or sub-sub consultant).

Product Format: Word or PDF document of the assessment methodology.

Timeframe: *Start:* 10/1/23

End: *9/30/24*

Product #3

Title: **Assessment of 20+/- Working Waterfront Sites Subject to Flooding**

Percent total project budget: 47.4%

Description: Lead PDC staff will provide each participating partner PDC instructions for how to organize PDC specific results. Lead PDC will receive assessments from each participating PDC and assemble results into a final report detailing the assessment findings and cost estimates. This report will be shared with staff overseeing the development of the VCRMP at DCR for consideration. Each participating PDC can assess public and/or private working water front sites for resilience needs. The site assessments can be done remotely (desktop only) or utilizing site visits as necessary. PDCs are encouraged to interact with property owners directly during the assessment process to ascertain specific site information, understand the property owner's desire and financial ability to address the needs, and to educate the property owner of available resources that are known to the PDC to address their needs (e.g. DCR SEAS free consultation, any known grant/loan funding, etc.).

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Timeframe: *Start:* 10/1/23

End: 9/30/24

ACCEPTED BY:

Partner PDC: Hampton Roads Planning District Commission (HRPDC)

By: Robert A. Crum, Executive Director

Date: 12/28/23

Lead PDC: Middle Peninsula Planning District Commission (MPPDC)

By: Lewis L. Lawrence, Executive Director

Date: 1/2/24

Memorandum of Understanding (MOU)

Between:
Middle Peninsula Planning District Commission (MPPDC)
&
Northern Neck Planning District Commission (NNPDC)

For:
The Virginia Department of Environmental Quality's Virginia Coastal Zone Management Program (CZM)
Grant #: NA23NOS4190255, Grant Year 2023, Task #: 91.01 *"Working Waterfront Assessment"*

This Memorandum of Understanding (MOU) outlines the terms of agreement between the Middle Peninsula Planning District Commission (MPPDC; herein referred to as the "lead PDC"), acting as management agent on behalf of Northern Neck Planning District Commission (NNPDC; herein after referred to as "partner PDC").

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End: 12/1/23

Product #2

Title: **Working Waterfront Site Assessment Methodology**

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Timeframe: *Start:* 10/1/23

End: 9/30/24

Product #3

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Product Format: Documentation of discussions between the PDCs and Virginia CZM, references to the DCR Round 4 Manual, and a description of the reporting methodology will be provided in the final report (Word or PDF document).

Timeframe: *Start:* 10/1/23

End: 9/30/24

ACCEPTED BY:

Partner PDC: Northern Neck Planning District Commission (NNPDC)

By: Jerry W. Davis, Executive Director

Date: 12/8/23

Lead PDC: Middle Peninsula Planning District Commission (MPPDC)

By: Lewis L. Lawrence, Executive Director

Date: 1/2/24

Appendix B: Virginia CZM-Approved Site Assessment Form Templates

Outlook

Re: WWF Assessment

From Flood, Jefferson (DEQ) <Jefferson.Flood@deq.virginia.gov>
Date Wed 4/24/2024 3:02 PM
To Taylor Ovide <tovide@mppdc.com>
Cc Curt Smith <csmith@mppdc.com>

Sorry, Excel is fine since it folks can type in it or convert it to PDF as needed. Thanks!

Jefferson Flood
Coastal Planner, Virginia Coastal Zone Management (CZM) Program
Virginia Department of Environmental Quality
1111 East Main Street, Suite 1400
Richmond, VA 23219
(804) 659-1918
jefferson.flood@deq.virginia.gov

From: Taylor Ovide <tovide@mppdc.com>
Sent: Wednesday, April 24, 2024 2:57 PM
To: Flood, Jefferson (DEQ) <Jefferson.Flood@deq.virginia.gov>
Cc: Curt Smith <csmith@mppdc.com>
Subject: RE: WWF Assessment

Jeff,

Regarding the formatting of the document for send out, I wanted to inquire about your preference. Would you like Excel or some other format?

Taylor Ovide
Coastal Resilience Planner
MIDDLE PENINSULA PLANNING DISTRICT COMMISSION
P.O. Box 286, Saluda, Virginia 23149
(804) 758-2311 www.mppdc.com

From: Flood, Jefferson (DEQ) <Jefferson.Flood@deq.virginia.gov>
Sent: Wednesday, April 24, 2024 8:24 AM
To: Taylor Ovide <tovide@mppdc.com>
Cc: Curt Smith <csmith@mppdc.com>
Subject: Re: WWF Assessment

Looks good! I'm still ok w/ removing the T&E/cultural resource desktop mapping elements since that would come up during a permit application for a shoreline project anyways, but also fine to keep it in there. Thanks!

Jefferson Flood
Coastal Planner, Virginia Coastal Zone Management (CZM) Program
Virginia Department of Environmental Quality
1111 East Main Street, Suite 1400
Richmond, VA 23219
(804) 659-1918
jefferson.flood@deq.virginia.gov

From: Taylor Ovide <tovide@mppdc.com>
Sent: Tuesday, April 23, 2024 3:54 PM
To: Flood, Jefferson (DEQ) <Jefferson.Flood@deq.virginia.gov>
Cc: Curt Smith <csmith@mppdc.com>
Subject: RE: WWF Assessment

Jeff,

I have made some refinements to the Excel sheet we discussed earlier to clearly outline the required fields. I would appreciate it if you could take a moment to review it and provide your feedback on whether you find it effective for your needs.

Regarding the formatting of the document for send out, I wanted to inquire about your preference. Would you like Excel or some other format?

Additionally, I intend to include some helpful links along with the Excel sheet to assist the PDC's in completing it efficiently:

1. Shoreline Change Data: [Link to arcgis.com] (This resource provides information on the 1937 shoreline.)
2. AdaptVA Viewer: [Link to vims.edu] (You can find most of the remaining data and resources here.)

Taylor Ovide
Coastal Resilience Planner

MIDDLE PENINSULA
PLANNING DISTRICT COMMISSION
P.O. Box 286, Saluda, Virginia 23149
(804) 758-2311 www.mppdc.com

From: Flood, Jefferson (DEQ) <Jefferson.Flood@deq.virginia.gov>
Sent: Wednesday, April 3, 2024 1:25 PM
To: Lewis Lawrence <llawrence@mppdc.com>; Taylor Ovide <tovide@mppdc.com>
Cc: Curt Smith <csmith@mppdc.com>
Subject: Re: WWF Assessment

I've attached a copy of the site report criteria w/ the categories I'd like kept as minimum standards highlighted. Also see 2 comments on pg. 3 about roadway flooding & dredging & let me know if you think those could be incorporated as minimum standards given that I've removed a bunch of the previously proposed criteria.

The Excel table for the WWF Assessment should be pared back accordingly to match the minimum standards.

Sound good?

Virginia Coastal Zone
MANAGEMENT PROGRAM

Jefferson Flood
Coastal Planner, Virginia Coastal Zone Management (CZM) Program
Virginia Department of Environmental Quality
1111 East Main Street, Suite 1400
Richmond, VA 23219
(804) 659-1918
jefferson.flood@deq.virginia.gov

From: Lewis Lawrence <llawrence@mppdc.com>
Sent: Wednesday, April 3, 2024 12:13 PM
To: Flood, Jefferson (DEQ) <Jefferson.Flood@deq.virginia.gov>; Taylor Ovide <tovide@mppdc.com>
Cc: Curt Smith <csmith@mppdc.com>
Subject: RE: WWF Assessment

My 2 cents. The assessment template we provided is probably more than what is needed under the CZ grant. Maybe Jeff, you could flag the minimum standards you want. Anyone if free to do more if needed.

Lewie

Lewis L Lawrence
Executive Director
Middle Peninsula Planning District Commission
P.O.Box 286
Saluda,Va 23149
804-758-2311
www.mppdc.com

From: Flood, Jefferson (DEQ) <Jefferson.Flood@deq.virginia.gov>
Sent: Wednesday, April 3, 2024 11:54 AM
To: Taylor Ovide <tovide@mppdc.com>
Cc: Lewis Lawrence <llawrence@mppdc.com>; Curt Smith <csmith@mppdc.com>
Subject: Re: WWF Assessment

Thanks Taylor, I approve of all the materials you provided & really appreciate how thorough the Perrin Wharf assessment is, even in draft form. But I think we might as well wait until it's complete before sending to the other PDCs, just so they can see the level of detail ultimately provided.

WRT which criteria are required vs. optional, which ones would you all suggest making optional? I think we could maybe make the natural & cultural resources desktop exercises optional or eliminate them altogether since any construction work requiring a wetlands or WOUS permit would trigger that review automatically. Also, the predicted presence of T&E species shouldn't be a deterrent for structural repair work if needed to boost resiliency, given that it'll likely be w/in the existing developed footprint. Also depending on whether you'd doing a desktop review & a site visit or only a desktop review for a given site, some criteria like signage wouldn't be able to be gleaned from desktop analysis & therefore would be N/A. Thoughts?

Jefferson Flood
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Virginia Department of Environmental Quality
1111 East Main Street, Suite 1400
Richmond, VA 23219
(804) 659-1918
jefferson.flood@deq.virginia.gov

From: Taylor Ovide <tovide@mppdc.com>
Sent: Sunday, March 31, 2024 9:10 PM
To: Flood, Jefferson (DEQ) <Jefferson.Flood@deq.virginia.gov>

Cc: Lawrence, Lewis <llawrence@mppdc.com>; Curt Smith <csmith@mppdc.com>
Subject: WWF Assessment

Jeff,

Attached you will find a draft version of an assessment report for Perrin. You will also find the assessment criteria list used to draft the report attached second. The third attachment is an Excel with the information you and I worked to develop, where I incorporated additional information from the assessment criteria to the basics needed for entry.

I want to emphasize that this report is still in draft format but I'm hoping to at least give you a sense of the basic format we're utilizing. Please review and provide feedback if you have any. If you approve, would you like us to distribute this as template to the other PDCs to consider? We need to pin down which criteria are required and which are optional and we will need to make that clear to the other PDCs. If you prefer we can wait to send a polished final version of our report, then we can wait two more weeks and send it to the PDCs at that point.

I also wanted to share the outline VHB provided in the email below that the draft assessment report is in.

County Cover Sheet:

- This is a divider tab for each County that explains what is included in the assessment and lists the sites in that County.

Cover Sheet:

- Includes basic site information, conditions overview collected from field and desktop investigations, and nearby or potential on-site resources
- Infographics to help depict information clearly.
- Coastal Vulnerability Index – Still working on final methodology. See shoreline exposure methodology below in mapping section.

Existing Site Conditions Summary (Based on Field Investigations and Desktop Research)

- Summary of land use, zoning, and adjacent land uses based on field investigations and desktop research
- Description and inventory of site and waterside asset conditions based on field investigations and desktop research
- Summary of dock conditions based on field investigations
- Summary of cultural resources based on desktop research
- Site Photos from field assessment

Mapping (Based on Field Investigations and Desktop Research)

- Mapping will be incorporated into the same template for the rest of the report for consistency. Maps attached are just placeholders.
- Site Information (zoning, ownership, etc.) through desktop research
- Site Conditions Assessment
    - Digitization and mapping of field investigations (i.e. Boat Ramp in poor condition, marsh in good condition, etc.)
- Environmental Information (Conservation and Wildlife, RPA, wetlands, topography, etc.)
- Coastal Vulnerability mapping and rating
    - FEMA current 100 and 500 yr floodplains
    - Intermediate-high sea level rise mapping at 2080

    - Approximate date of MLW inundation of 50% of site land area (still working on script to run this for the sites) We are thinking 50% as this is ~simple majority of site… have you used a different # in the past?
    - Shoreline Exposure – Rating/ scoring based on the following. High # = high exposure
        - Fetch – 0 to >5 miles
        - Wind – area to blow. i.e. sheltered cove, semi open, open water
        - Wakes – minimal, medium, and heavy traffic
        - Currents (in knots) – minimal, 0-2, 2+ knots
- Equity Evaluation – Not for each individual site, but will be included in an equity section of the larger report
    - Methodology still in progress as we have discussed.

Structural Conditions Summary (Based on Field Investigations)

- Based on field observation by qualified marine structure designer/ coastal engineer
    - Visual observation of structural components of dock and bulkhead structures
    - Rating for each structural component – Good Condition, Minor, Moderate, Major, or Severe issues
    - Dock surface elevation approximation
    - Approximate Remaining Lifespan estimation based on rating
- Recommendations for improvements
    - Repair dock, replace dock, elevate dock, improvements for consideration, etc.
- Representative site photos

Cultural Resources Summary (Based on Desktop Research)

- Summary of architectural and/or archaeological resources
    - Cultural Resource Data was collected using desktop research through Virginia's Cultural Resource Inventory database
- Summary of natural resources including Rare, Threatened, or Endangered Species
    - Three online search portals managed by the Virginia Department of Wildlife Resources (VDWR), the U.S. Fish and Wildlife Service (USFWS), and the Virginia Department of Conservation and Recreation (DCR) were used to determine if any state or federally listed threatened or endangered plants or animals are known to occur within the vicinity of the project site.
- Narrative describing potential impacts or ways to mitigate if appropriate
- Potential use of VCRIS mapping to depict resources (still discussing this internally)

Opinion of Probable Cost

- Class 4 estimate per AACE (Association for the Advancement of Cost Engineering) description
    - Prepared for feasibility and preliminary budget purposes
- Will include a cost range rather than a specific number, and be rated relative to the larger RAISE Grant project (60+ sites) as a small, medium, or large investment required to bring the site to a state of good repair.

Field Condition Assessment Results

- Appendix of information collected sing field app during field investigations.

Taylor Ovide
Coastal Resilience Planner
MIDDLE PENINSULA
PLANNING DISTRICT COMMISSION
P.O. Box 286, Saluda, Virginia 23149

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Project Owner (Select One)*	
	PDC
	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
Project Partners*	
Project Phase (Select One)*	
	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
***Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP.*	
Scale of Benefits (Select One)*	
	Individual Lot: The project is expected to only benefit an individual lot.
	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*	
Coastal Hazard Addressed (Select One or More)*	
	Tidal Flooding – flooding caused by daily or extreme high tides
	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other
Climate Standards (Select One or More)*	
	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
	The project considers increased rainfall
	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed

Project Subtype (Select One or More) - See Appendix G for more information on subtypes
https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *****

Total Implementation Cost *

Project Identifier *

Owner Classification *

	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization Organization
	Trust
	Other - business, private landowner, etc.

Estimated Start Date *

Estimated End Date *

Information Link *

Design Life *

Planning, Engineering, and Permitting Cost *

Construction Implementation Cost *

Average Annual Operations & Maintenance Cost *

Permitting Status *

Funding - Cost-Share Requirements *

Funding - Application Costs *

Additional Information -** Include dialogues w/ site manager & users here **

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*

Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*
Owner*
Adjacent Property Owners, Parcel Size, and Use/zoning
Approaching Land Use Character/Characteristics
Known Easements*
Land Features Inventory
Cover Type and Gerneral Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*
Parking (# of spaces, restrictions)
Staging/Offloading Areas for Commercial/Industrial Use
Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)
Critical Dimensions (road width, etc.)*
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Wireless Internet / Cell Service Availability
Signage (wayfinding or regulatory)
Drainage (ditches, upland erosion)*
Evidence of Activity (recreational use, commercial use, trash dumping)
Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)
Site Environmental Information
Wetlands (from National Wetlands Inventory (NWI))
RPA (100' Buffer from Wetlands)
RMA (500' Buffer from Wetlands)

Floodplain (100 year and 500 year FEMA)*
Topography *
Rare, Threatened, Endandgered Species Potential On Site (Flora and Fauna)
Coastal Flood Vulnerability Mapping
Intermediate-high Sea Level Rise Mapping*
Coastal Erosion Mapping*
Date of Mean Low Water Inundation of Site or Access to Site*
Archaeological and Cultural Resources (obtained through Virginia Cultural Resources Information System (V-CRIS))
Road Network Evaluations
Distance to Nearest Collector / Arterial Road*
Add Any Planned or Built Multi-Modal Network
Waterside
Prevailing wind direction
In-Water Features

Water Depths (if known)*
Tidal Range*
Distance to Channel and Distance to Channel Markers*
Fetch*
Submerged Aquatic Vegetation (SAV) Mapping
Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)
Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.
Type and Functionality*
Materials*
Approximate Width and Length*
Approximate Elevation*
Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*
Piles (condition, diameter, etc.)*
Pile Cap*
Stringers*
Deck Boards*
Railings*
Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*
Accessories (Cleats, Ladders, Ramps, Etc.)*
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
1937 Historic Shoreline Location (provided by VIMS) *
If No Stabilization Condition*
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
Existing Stabilization Condition*
Revetment/Bulkhead/Living Shoreline/Other*
Marsh Condition Waterward of Shoreline Stabilization*
Materials*
Other Noticed Issues From the Shoreline Waterward

Working Waterfront Assessment	
The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.	
Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Locklies Creek Landing	
Project Owner (Select One)*	
	PDC
	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
Project Partners*	
Project Phase (Select One)*	
	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No

Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP.*	
Scale of Benefits (Select One)*	
	Individual Lot: The project is expected to only benefit an individual lot.
	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.**	
Coastal Hazard Addressed (Select One or More)*	
	Tidal Flooding – flooding caused by daily or extreme high tides
	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other
Climate Standards (Select One or More)*	
	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
	The project considers increased rainfall
	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed
Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf **	

Total Implementation Cost *	
Project Identifier *	
Owner Classification *	
	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization
	Trust
	Other - business, private landowner, etc.
Estimated Start Date *	
Estimated End Date *	
Information Link *	
Design Life *	
Planning, Engineering, and Permitting Cost *	
Construction Implementation Cost *	
Average Annual Operations & Maintenance Cost *	
Permitting Status *	
Funding - Cost-Share Requirements *	
Funding - Application Costs *	
***Additional Information -** Include dialogues w/ site manager & users here *	

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*

Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*

Owner*

Adjacent Property Owners, Parcel Size, and Use/zoning
Approaching Land Use Character/Characteristics
Known Easements*
Land Features Inventory
Cover Type and Gerneral Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*
Parking (# of spaces, restrictions)
Staging/Offloading Areas for Commercial/Industrial Use
Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)
Critical Dimensions (road width, etc.)*
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Wireless Internet / Cell Service Availability
Signage (wayfinding or regulatory)
Drainage (ditches, upland erosion)*

Evidence of Activity (recreational use, commercial use, trash dumping)
Other (may include trash cans, portable toilets, furnishings, buildings or temporary structures present, etc.)
Site Environmental Information
Wetlands (from National Wetlands Inventory (NWI))
RPA (100' Buffer from Wetlands)
RMA (500' Buffer from Wetlands)
Floodplain (100 year and 500 year FEMA)*

Topography *
Rare, Threatened, Endangered Species Potential On Site (Flora and Fauna)
Coastal Flood Vulnerability Mapping
Intermediate-high Sea Level Rise Mapping*
Coastal Erosion Mapping*

Date of Mean Low Water Inundation of Site or Access to Site*
Archaeological and Cultural Resources (obtained through Virginia Cultural Resources Information System (V-CRIS))
Road Network Evaluations
Distance to Nearest Collector / Arterial Road*
Add Any Planned or Built Multi-Modal Network
Waterside
Prevailing wind direction

In-Water Features
Water Depths (if known)*
Tidal Range*
Distance to Channel and Distance to Channel Markers*
Fetch*
Submerged Aquatic Vegetation (SAV) Mapping
Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)
Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.
Type and Functionality*
Materials*
Approximate Width and Length*
Approximate Elevation*
Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*
Piles (condition, diameter, etc.)*
Pile Cap*
Stringers*
Deck Boards*
Railings*
Hardware (bolts fastening stringers, nails/screws holding deck boards down, etc.)*

Accessories (Cleats, Ladders, Ramps, Etc.)*
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
1937 Historic Shoreline Location (provided by VIMS) *
If No Stabilization Condition*
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
Existing Stabilization Condition*
Revetment/Bulkhead/Living Shoreline/Other*
Marsh Condition Waterward of Shoreline Stabilization*
Materials*
Other Noticed Issues From the Shoreline Waterward

Working Waterfront Assessment Sheet

Project Information

1. **Your Name:** (Please write your full name.)

2. **Your Contact Info:** (Provide your email or phone number.)

3. **Project Name:** (Is there a recently completed project or proposed/upcoming projects?)

4. **Who Owns the Project?** (Select one):
    - Local government
    - Business
    - Tribal organization
    - Other (please explain)

5. **Contact Info for the Project Owner:** (Provide the email or phone number of the person or group in charge of the project.)

6. **Who Else is Involved?** (List any partners, organizations, or businesses working with the project owner.)

Project Phases

7. **What Stage is the Project In?** (Select one):
    - Just an idea
    - Planned, but not started
    - Construction started
    - Finished
8. **Are There Any Challenges?** (Tell us if there are issues like funding, permits, or environmental concerns.)

Project Details

9. **Does the Project Have Public Access?**
    - Yes
    - No
10. **What Type of Public Access Is Available?**
    (For example, boat ramps, piers, etc.)

11. **Are There Any Signs on the Property?**

- Yes
- No

Shoreline and Stabilization

12. **What Is the Condition of the Shoreline?**
    (For example, is it a natural shoreline, or is it stabilized with a revetment, bulkhead, or living shoreline?)

13. **What Types of Materials Are Used in the Stabilization?**
    (Examples: stone, concrete, marsh grasses)

14. **Are There Any Signs of Erosion or Damage Along the Shoreline?**

- Yes
- No

15. **If There's No Stabilization, Describe the Shoreline Condition:**
    (Is it eroding, marshy, etc.?)

16. **What Kind of Marsh Exists Along the Shoreline?**
(Describe if it's in good condition, eroding, or damaged.)

Dock and Accessories

17. **Is There a Dock?**

- Yes
- No

18. **If Yes, What Condition Is the Dock In?**
(Examples: good, poor, needs repair)

19. **What Accessories Are Present on the Dock?**
(For example, cleats, ladders, ramps)

20. **What Materials Are Used for the Dock?**
(Wood, metal, etc.)

Additional Considerations

21. **Are There Any Other Issues or Challenges with the Project?**
(Anything else to note, like environmental concerns or safety risks.)

22. **Do You Have Any Photos or Additional Documents Related to This Project?** (If yes, please send them to us separately.)

Working Waterfront Assessment Sheet

Landside Property Information

1. **Parcel Size and Use:**
   (What is the size of the land? Include the parcel numbers and how the land is being used or zoned.)*

2. **Property Owner:**
   (Who owns the property?)*

3. **Neighboring Properties:**
   (What are the sizes and uses of the neighboring properties?)

4. **Land Characteristics:**
   (Describe how the surrounding land is being used or what it looks like as you approach the site.)

5. **Easements:**
   (Are there any known easements?)*

Land Features Inventory

7. **Land Cover and Condition:**
   (Is the land covered with pavement, gravel, dirt, forest, lawn, or something else?)*

8. **Parking:**
   (How many parking spaces are available? Are there any restrictions?)

9. **Loading Areas:**
   (Are there designated areas for loading or offloading equipment?)

10. **Vehicle Access:**
    (Can large vehicles make turns on the property? A 90-foot diameter circle may be needed for scale.)

11. **Road Width and Other Dimensions:**
    (Provide details on critical dimensions, like road width, etc.)*

12. **Utilities Available:**
    (Are there electric, water, sewer, communications, or stormwater utilities on site?)*

13. **Internet/Cell Service:**
    (Is there wireless internet or cell phone service?)

14. **Signage:**
    (Is there any signage for directions or regulations?)

15. **Drainage:**
    (Are there ditches or signs of erosion on the property?)*

16. **Activities:**
    (Is the site used for recreation, business, or is there evidence of trash dumping?)

17. **Other Features:**
    (List any additional features like trash cans, portable toilets, temporary structures, etc.)

Environmental Information

18. **Wetlands:**
    (Are there wetlands on the site? Use data from the National Wetlands Inventory if possible.)

19. **Buffers:**
    (Does the site have a buffer from wetlands? If so, indicate if it's a 100' or 500' buffer.)

20. **Floodplain:**
    (Is the site in a floodplain? Identify if it's in a 100-year or 500-year FEMA floodplain.)*

21. **Protected Species:**
    (Is there potential for rare, threatened, or endangered species on site?)

Coastal Flood Vulnerability

23. **Sea Level Rise Risk:**
    (How vulnerable is the site to sea-level rise?)*

24. **Coastal Erosion:**
    (Is the site prone to coastal erosion?)*

25. **Flood Risk Data:**
    (Provide the date of the most recent flood or inundation that affected access to the site.)*

Road and Network Information

26. **Road Access:**
    (How far is the site from the nearest main road?)*

27. **Multi-Modal Network:**
    (Are there any plans for or existing bicycle or pedestrian networks?)

Waterside Information

28. **Wind Direction:**
    (What is the prevailing wind direction?)

29. **Water Depth:**
    (What are the water depths at the site, if known?)*

30. **Tidal Range:**
    (What is the tidal range at the site?)*

31. **Distance to Channel:**
    (How far is the site from the nearest navigation channel?)*

32. **Fetch:**
    (Describe the fetch, or the distance wind can travel across the water surface.)

33. **Aquatic Vegetation:**
    (Is there any submerged aquatic vegetation near the site?)

Existing Structures (Docks, Boat Ramps, etc.)

34. **Structure Type and Purpose:**
    (What structures are present?)*

35. **Materials Used:**
    (What materials are the structures made from?)*

36. **Structure Dimensions:**
    (Provide the approximate width and length.)*

37. **Structure Elevation:**
    (What is the approximate elevation above water level?)

38. **Condition of Structure:**
    (Are any repairs needed? How long is the structure expected to last?)

39. **Pile Condition:**
    (What condition are the piles in?)*

40. **Structural Components:**
    (Describe the condition of pile caps, stringers, deck boards, railings, and hardware like bolts and nails.)*

41. **Accessories:**
    (List any additional items like cleats, ladders, or ramps on the dock.)*

42. **Shoreline Condition:**
(Describe the shoreline, whether it's a living shoreline, revetment, or if it's eroding.)*

43. **Historic Shoreline Location:**
(Indicate the location of the historic shoreline, if available.)*

44. **Erosion Condition at Water's Edge:**
(Is there scarping or erosion at the water's edge?)

45. **Stabilization Structures:**
(Are there bulkheads, revetments, or living shorelines present?)

46. **Marsh Condition:**
(What is the condition of any marshland along the shoreline?)

47. **Other Issues:**
(Mention any other issues noticed from the shoreline or waterward.)

Appendix C: Completed Site Assessment Forms & Supplementary Data

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Working Waterfront Assessment - Cape Charles Town Harbor	
Project Owner (Select One)*	
X	PDC
	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
N/A	
Project Partners*	
N/A	
Project Phase (Select One)*	
N/A	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
N/A	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
N/A	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
N/A	Under Construction or Implementation - Projects in this phase involve active implementation.
N/A	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
N/A	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
N/A	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP. **	
N/A	
Scale of Benefits (Select One)*	
N/A	Individual Lot: The project is expected to only benefit an individual lot.
N/A	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
N/A	Watershed: The project is expected to benefit a HUC10 watershed area.
N/A	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*****	
11 Marina Road; Cape Charles, VA 23310	
Coastal Hazard Addressed (Select One or More)*	
N/A	Tidal Flooding – flooding caused by daily or extreme high tides
N/A	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
N/A	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
N/A	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
N/A	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
N/A	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
N/A	Other
Climate Standards (Select One or More)*	
N/A	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
N/A	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
N/A	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
N/A	The project considers increased rainfall
N/A	The project does not consider future sea level rise or rainfall conditions
N/A	Other Coastal Hazards Addressed
Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *****	
N/A	

Total Implementation Cost *	
N/A	
Project Identifier *	
N/A	
Owner Classification *	
N/A	Commonwealth of Virginia
N/A	Federal and/or State Recognized Tribe
N/A	Locality
N/A	Planning District Commission/Regional Commission
N/A	Federal - Department of Defense
N/A	Federal - Non-Department of Defense
N/A	Non-Profit Organization
N/A	Non-Governmental Organization Organization
N/A	Trust
N/A	Other - business, private landowner, etc.
Estimated Start Date *	
N/A	
Estimated End Date *	
N/A	
Information Link *	
N/A	
Design Life *	
N/A	
Planning, Engineering, and Permitting Cost *	
N/A	
Construction Implementation Cost *	
N/A	
Average Annual Operations & Maintenance Cost *	
N/A	
Permitting Status *	
N/A	
Funding - Cost-Share Requirements *	
N/A	
Funding - Application Costs *	
N/A	
***Additional Information** - Include dialogues w/ site manager & users here *	
N/A	

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*

Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*

Parcel #83A3-A-10. About 17 acres including harbor bottom. About 5 acres of land. Being used as the Cape Charles Town Harbor. Zoned Harbor District.

Owner*

Town of Cape Charles

Adjacent Property Owners, Parcel Size, and Use/zoning

Canonie Atlantic Company, about 41 acres, former rail yard. Cape Charles Yacht Center, about 3 acres, yacht/vessel repair and storage. Coast Guard Station Cape Charles, 2 acres, Coast Guard Station

Approaching Land Use Character/Characteristics

Rail yard is vacant with tracks removed. Yacht Center and Coast Guard Station are active with docks, buildings, and vessels.

Known Easements*

U. S. Army Corps of Engineers easement for dredging pipe.

Land Features Inventory

Cover Type and Gerneral Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*

Combination of asphalt pavement, concrete, gravel, grass and wood boardwalk.

Parking (# of spaces, restrictions)

About 40 vehicle parking spaces and 20 boat trailer spaces

Staging/Offloading Areas for Commercial/Industrial Use

Inner harbor bulkhead is a designated offloading area. Two dual boat launch and recovery ramps. Truck offlaoad area for The Shanty Restaurant.

Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)

Yes, vehicles can make turns on the property.

Critical Dimensions (road width, etc.)*

Access road is about 22 ft wide

Utilities Present On Site (electric, communications, sewer, water, stormwater)*

Electricity, water, broadband internet, telephone, and sewer

Wireless Internet / Cell Service Availability

Yes, both.

Signage (wayfinding or regulatory)

Yes, directional signage and regulatory signage.

Drainage (ditches, upland erosion)*

No ditches or serious erosion

Evidence of Activity (recreational use, commercial use, trash dumping)

Site is used for both transient and long term vessel docking and launch/recovery of boats. Vessels are both recreational and commercial. Also, kayak launch and lifeboat training installation. The Shar

Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)

Harbor Master's office, fueling tanks and dispensers, bath house, trash management area for dumpsters.

Site Environmental Information

Wetlands (from National Wetlands Inventory (NWI))

No Wetland designation according to National Wetlands Inventory, NWI (https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/)

RPA (100' Buffer from Wetlands)

Site has an engineered stormwater infiltration bed to prevent run off into harbor and according to county maps (https://northampton.civ.quest/) is zoned as Incorporated Town.

RMA (500' Buffer from Wetlands)

N/A

Floodplain (100 year and 500 year FEMA)*

Zone AE, 100 year FEMA flood plan according to FEMA's National Flood Hazard Layer (NFHL) Viewer (https://hazards-fema.maps.arcgis.com/apps/webappviewer/). Dockmaster has confirmed that sit

Topography *

Rare, Threatened, Endandgered Species Potential On Site (Flora and Fauna)

N/A

Coastal Flood Vulnerability Mapping

Intermediate-high Sea Level Rise Mapping*

The adjoining coastal portions of site are threatened by 2020 Scenarios of Future Mean Sea Level according to Climate Mapping for Resilience and Adaptation, CMRA, U.S. Sea Level Rise - 2020 Interm

Coastal Erosion Mapping*

The site's relative susceptibility or CVI - coastal vulnerability index is characterized as Very High according to the USGS Coastal Change Hazard Portal (https://marine.usgs.gov/coastalchangehazardspor

Date of Mean Low Water Inundation of Site or Access to Site*

N/A

Road Network Evaluations

Distance to Nearest Collector / Arterial Road*

Two miles from US 13

Add Any Planned or Built Multi-Modal Network

Planned connectivity to Cape Charles multi-use trail and Eastern Shore Bike & Hike trail.

Waterside

Prevailing wind direction

Northwest in winter, Southwest in summer

In-Water Features

Water Depths (if known)*

Maximum of 18 ft

Tidal Range*

2.5 ft

Distance to Channel and Distance to Channel Markers*

Site is directly adjacent to Federal navigation channel.

Fetch*

Fifteen miles from western shore of Virginia. One half mile offshore breakwaters.

Submerged Aquatic Vegetation (SAV) Mapping

No bed indicated per VIMS Interactive SAV Map (https://www.vims.edu/research/units/programs/sav/access/maps/)

Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)

Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.

Type and Functionality*

95 docking slips (51 fixed, 44 floating), 800 ft of concrete protective breakwater, 4 boat ramps, bath house, harbor master's office and restroom, concrete walkway around inner harbor, wood walkwa

Materials*

Concrete, vinyl, pressure treated lumber and piles, steel piles, steel sheets, steel tanks, aluminum light poles, hard plank siding, etc…

Approximate Width and Length*

Various see above.

Approximate Elevation*

Approximately 6 ft above MLW.

Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*

Varies from fair to good. Capital repair plan has been developed. Structures should last 20 to 50 years with proper maintenance and repair.

Piles (condition, diameter, etc.)*

Generally good condition. Last phase of inner harbor rehabilitation is now advertised for bid. Will replace 35 deteriorated piles.

Pile Cap*

Generally good condition.

Stringers*

Generally good condition.

Deck Boards*

Generally good condition.

Railings*

Generally good condition.

Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*

Generally good condition.

Accessories (Cleats, Ladders, Ramps, Etc.)*

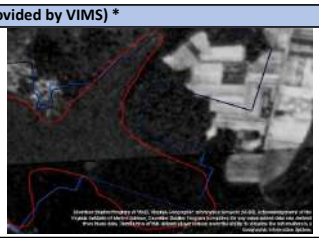
Docks have cleats, ladders, light and water pedestals, life ring pedestals, etc…

Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*

Hardened shoreline - concrete, vinyl, rock.

1937 Historic Shoreline Location (provided by VIMS) *

Town of Cape Charles harbor



If No Stabilization Condition*

N/A

Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*

No

Existing Stabilization Condition*

See above.

Revetment/Bulkhead/Living Shoreline/Other*

Treated pylons and galvanized metal bulkhead

Marsh Condition Waterward of Shoreline Stabilization*

No marsh
Materials*
timber, galvinized metal
Other Noticed Issues From the Shoreline Waterward
N/A

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Working Waterfront Assessment - Curtis Merrit Harbor of Refuge	
Project Owner (Select One)*	
X	PDC
	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
N/A	
Project Partners*	
N/A	
Project Phase (Select One)*	
N/A	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
N/A	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
N/A	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
N/A	Under Construction or Implementation - Projects in this phase involve active implementation.
N/A	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
N/A	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
N/A	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP. **	
N/A	
Scale of Benefits (Select One)*	
N/A	Individual Lot: The project is expected to only benefit an individual lot.
N/A	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
N/A	Watershed: The project is expected to benefit a HUC10 watershed area.
N/A	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*****	
2301 Curtis Merritt Harbor Road; Chincoteague, VA 23336	
Coastal Hazard Addressed (Select One or More)*	
N/A	Tidal Flooding – flooding caused by daily or extreme high tides
N/A	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
N/A	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
N/A	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
N/A	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
N/A	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
N/A	Other
Climate Standards (Select One or More)*	
N/A	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
N/A	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
N/A	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
N/A	The project considers increased rainfall
N/A	The project does not consider future sea level rise or rainfall conditions
N/A	Other Coastal Hazards Addressed
Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *****	
N/A	

Total Implementation Cost *	
N/A	
Project Identifier *	
N/A	
Owner Classification *	
N/A	Commonwealth of Virginia
N/A	Federal and/or State Recognized Tribe
N/A	Locality
N/A	Planning District Commission/Regional Commission
N/A	Federal - Department of Defense
N/A	Federal - Non-Department of Defense
N/A	Non-Profit Organization
N/A	Non-Governmental Organization Organization
N/A	Trust
N/A	Other - business, private landowner, etc.
Estimated Start Date *	
N/A	
Estimated End Date *	
N/A	
Information Link *	
N/A	
Design Life *	
N/A	
Planning, Engineering, and Permitting Cost *	
N/A	
Construction Implementation Cost *	
N/A	
Average Annual Operations & Maintenance Cost *	
N/A	
Permitting Status *	
N/A	
Funding - Cost-Share Requirements *	
N/A	
Funding - Application Costs *	
N/A	
***Additional Information** - Include dialogues w/ site manager & users here *	
N/A	

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*

Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*
45-3-A Perimeter 2056.92 ft Area 1.58 acres **45-3-B** Perimeter 3246.29 ft Area 12.63 acres **45-A-4** Perimeter 3271.98 ft Area 3.18 acres **Total** Perimeter 8575.19 ft Area 17.39 acres
Owner*
Town of Chincoteague
Adjacent Property Owners, Parcel Size, and Use/zoning
Sun Outdoors Campground
Approaching Land Use Character/Characteristics
Marsh and water
Known Easements*
No

Land Features Inventory

Cover Type and Gerneral Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*

Parking (# of spaces, restrictions)
150
Staging/Offloading Areas for Commercial/Industrial Use
Yes
Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)
Yes, large vehicles can make turns on the property .
Critical Dimensions (road width, etc.)*
20 ft
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Electricity, water, and sewer
Wireless Internet / Cell Service Availability
Internet
Signage (wayfinding or regulatory)
Yes
Drainage (ditches, upland erosion)*
Yes
Evidence of Activity (recreational use, commercial use, trash dumping)
Recreational use and commercial use

Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)

Trash cans and fixed bathrooms

Site Environmental Information

Wetlands (from National Wetlands Inventory (NWI))

The site contans Estuarine Intertidal Emergent Wetland, Persistent, Regularly Flooded-E2M1N,Palustrine wetland that is partly Emergent (Persistent) and partly Unconsolidated Shore, with a Seasonall

RPA (100' Buffer from Wetlands)

The site bulkheads, breakwaters, and a sediment basin to prevent run off into harbor and according to county maps (https://northampton.civ.quest/) is zoned as Incorporated Town.

RMA (500' Buffer from Wetlands)

N/A

Floodplain (100 year and 500 year FEMA)*

Zone AE, 100 year FEMA flood plan according to FEMA's National Flood Hazard Layer (NFHL) Viewer (https://hazards-fema.maps.arcgis.com/apps/webappviewer/).

Topography *

Rare, Threatened, Endandgered Species Potential On Site (Flora and Fauna)

No

Coastal Flood Vulnerability Mapping

Intermediate-high Sea Level Rise Mapping*

The adjoining coastal portions of site and neighboring properties are threatened by 2020 Scenarios of Future Mean Sea Level according to Climate Mapping for Resilience and Adaptation, CMRA, U.S.

Coastal Erosion Mapping*

The site's relative susceptibility or CVI - coastal vulnerability index is characterized as Very High according to the USGS Coastal Change Hazard Portal (https://marine.usgs.gov/coastalchangehazardspor

Date of Mean Low Water Inundation of Site or Access to Site*

N/A

Road Network Evaluations

Distance to Nearest Collector / Arterial Road*

Joins on to Main Street

Add Any Planned or Built Multi-Modal Network

No

Waterside

Prevailing wind direction

Summer- South Winter- North

In-Water Features

Water Depths (if known)*

10 ft

Tidal Range*

2-3 feet

Distance to Channel and Distance to Channel Markers*

Joins on to the Channel

Fetch*

Submerged Aquatic Vegetation (SAV) Mapping

No bed indicated per VIMS Interactive SAV Map (https://www.vims.edu/research/units/programs/sav/access/maps/)

Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)

Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.

Type and Functionality*

Office and bathrooms

Materials*

Blocks and concrete

Approximate Width and Length*

20 x 40

Approximate Elevation*

8 ft

Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*

Very good

Piles (condition, diameter, etc.)*

Great

Pile Cap*

Very good

Stringers*

Very good

Deck Boards*

Very good

Railings*

Very good

Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*

Very good

Accessories (Cleats, Ladders, Ramps, Etc.)*

Fair

Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*

Eroding

1949 Historic Shoreline Location (provided by VIMS) *

If No Stabilization Condition*
N/A
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
Yes
Existing Stabilization Condition*
Yes
Revetment/Bulkhead/Living Shoreline/Other*
Yes
Marsh Condition Waterward of Shoreline Stabilization*
Eroding
Materials*
timber, vinyl, concrete
Other Noticed Issues From the Shoreline Waterward
Erosion

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Working Waterfront Assessment - Davis Wharf Working Waterfront	
Project Owner (Select One)*	
X	PDC
	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
N/A	
Project Partners*	
N/A	
Project Phase (Select One)*	
N/A	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
N/A	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
N/A	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
N/A	Under Construction or Implementation - Projects in this phase involve active implementation.
N/A	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
N/A	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
N/A	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP. **	
N/A	
Scale of Benefits (Select One)*	
N/A	Individual Lot: The project is expected to only benefit an individual lot.
N/A	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
N/A	Watershed: The project is expected to benefit a HUC10 watershed area.
N/A	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*****	
11498 Davis Wharf Road; Belle Haven, VA 23427	
Coastal Hazard Addressed (Select One or More)*	
N/A	Tidal Flooding – flooding caused by daily or extreme high tides
N/A	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
N/A	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
N/A	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
N/A	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
N/A	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
N/A	Other
Climate Standards (Select One or More)*	
N/A	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
N/A	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
N/A	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
N/A	The project considers increased rainfall
N/A	The project does not consider future sea level rise or rainfall conditions
N/A	Other Coastal Hazards Addressed
Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *****	
N/A	

Total Implementation Cost *	
N/A	
Project Identifier *	
N/A	
Owner Classification *	
N/A	Commonwealth of Virginia
N/A	Federal and/or State Recognized Tribe
N/A	Locality
N/A	Planning District Commission/Regional Commission
N/A	Federal - Department of Defense
N/A	Federal - Non-Department of Defense
N/A	Non-Profit Organization
N/A	Non-Governmental Organization Organization
N/A	Trust
N/A	Other - business, private landowner, etc.
Estimated Start Date *	
N/A	
Estimated End Date *	
N/A	
Information Link *	
N/A	
Design Life *	
N/A	
Planning, Engineering, and Permitting Cost *	
N/A	
Construction Implementation Cost *	
N/A	
Average Annual Operations & Maintenance Cost *	
N/A	
Permitting Status *	
N/A	
Funding - Cost-Share Requirements *	
N/A	
Funding - Application Costs *	
N/A	
***Additional Information** - Include dialogues w/ site manager & users here *	
N/A	

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*

Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*
750 sq ft
Owner*
Jeremiah Slusser
Adjacent Property Owners, Parcel Size, and Use/zoning
Residential
Approaching Land Use Character/Characteristics
Marina/boatyard/marine travelift & haulout
Known Easements*
None

Land Features Inventory

Cover Type and Gerneral Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*
Aspault, Gravel, Sand, Stone
Parking (# of spaces, restrictions)
Limited
Staging/Offloading Areas for Commercial/Industrial Use
Workshop / Haulout
Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)
Yes, vehicles can make turns on the property.
Critical Dimensions (road width, etc.)*
15 ft wide
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Electricity, well, phone, and internet
Wireless Internet / Cell Service Availability
Yes
Signage (wayfinding or regulatory)
No
Drainage (ditches, upland erosion)*
No
Evidence of Activity (recreational use, commercial use, trash dumping)
Small business

Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)

Dumpster, trash cans, and portable toilet

Site Environmental Information

Wetlands (from National Wetlands Inventory (NWI))

The site contains Estuarine Intertidal Unconsolidated Shore, Irregularly Exposed Wetland - E2USM designation according to National Wetlands Inventory, NWI (https://fwsprimary.wim.usgs.gov/wetlar

RPA (100' Buffer from Wetlands)

According to Accomack County maps (https://parcelviewer.geodecisions.com/Accomack/) The entire site is within current RPA and RMA designations.

RMA (500' Buffer from Wetlands)

According to Accomack County maps (https://parcelviewer.geodecisions.com/Accomack/) The entire site is within current RPA and RMA designations.

Floodplain (100 year and 500 year FEMA)*

Zone AE, 100 year FEMA flood plan according to FEMA's National Flood Hazard Layer (NFHL) Viewer (https://hazards-fema.maps.arcgis.com/apps/webappviewer/).

Topography *

Rare, Threatened, Endandgered Species Potential On Site (Flora and Fauna)

Not that they are aware of.

Coastal Flood Vulnerability Mapping

Intermediate-high Sea Level Rise Mapping*

The adjoining coastal portions of site and neighboring properties are threatened by 2020 Scenarios of Future Mean Sea Level according to Climate Mapping for Resilience and Adaptation, CMRA, U.S. S

Coastal Erosion Mapping*

The site's relative susceptibility or CVI - coastal vulnerability index is characterized as Very High according to the USGS Coastal Change Hazard Portal (https://marine.usgs.gov/coastalchangehazardspor

Date of Mean Low Water Inundation of Site or Access to Site*

N/A

Road Network Evaluations

Distance to Nearest Collector / Arterial Road*

Road ends at marina. Roughly three miles from State Route 178

Add Any Planned or Built Multi-Modal Network

No

Waterside

Prevailing wind direction

prevailing - west / damaging - east

In-Water Features

Water Depths (if known)*

Average 6-8 ft

Tidal Range*

1-2 on average

Distance to Channel and Distance to Channel Markers*

200 yards

Fetch*

3/4 mile approx.

Submerged Aquatic Vegetation (SAV) Mapping

No bed indicated per VIMS Interactive SAV Map (https://www.vims.edu/research/units/programs/sav/access/maps/)

Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)

Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.

Type and Functionality*

Bblock building - store / metal building - workshop / docks composite shed

Materials*

Concrete block, metal, treated lumber

Approximate Width and Length*

Store 24 ft x 40 ft / Workshop 25 ft x 50 ft / Shed 12 ft x 16 ft / docks - various

Approximate Elevation*

1 1/2 ft above

Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*

Fair- store needs new roof

Piles (condition, diameter, etc.)*

Fair

Pile Cap*

Fair

Stringers*

Fair

Deck Boards*

Fair

Railings*

Fair

Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*

Fair

Accessories (Cleats, Ladders, Ramps, Etc.)*

None

Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*

Eroding shoreline

1937 Historic Shoreline Location (provided by VIMS) *

If No Stabilization Condition*

N/A

Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*

Yes

Existing Stabilization Condition*

N/A

Revetment/Bulkhead/Living Shoreline/Other*

Yes, bulkheads

Marsh Condition Waterward of Shoreline Stabilization*

healthy
Materials*
timber
Other Noticed Issues From the Shoreline Waterward
None

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Working Waterfront Assessment - Onancock Marina	
Project Owner (Select One)*	
X	PDC
	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
N/A	
Project Partners*	
N/A	
Project Phase (Select One)*	
N/A	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
N/A	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
N/A	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
N/A	Under Construction or Implementation - Projects in this phase involve active implementation.
N/A	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
N/A	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
N/A	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP. **	
N/A	
Scale of Benefits (Select One)*	
N/A	Individual Lot: The project is expected to only benefit an individual lot.
N/A	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
N/A	Watershed: The project is expected to benefit a HUC10 watershed area.
N/A	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*****	
2 King Street; Onancock, VA 23417	
Coastal Hazard Addressed (Select One or More)*	
N/A	Tidal Flooding – flooding caused by daily or extreme high tides
N/A	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
N/A	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
N/A	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
N/A	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
N/A	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
N/A	Other
Climate Standards (Select One or More)*	
N/A	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
N/A	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
N/A	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
N/A	The project considers increased rainfall
N/A	The project does not consider future sea level rise or rainfall conditions
N/A	Other Coastal Hazards Addressed
Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *****	
N/A	

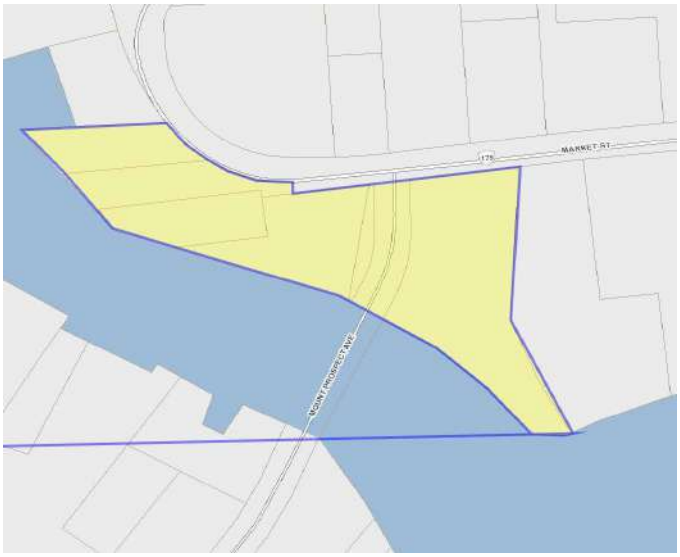
Total Implementation Cost *	
N/A	
Project Identifier *	
N/A	
Owner Classification *	
N/A	Commonwealth of Virginia
N/A	Federal and/or State Recognized Tribe
N/A	Locality
N/A	Planning District Commission/Regional Commission
N/A	Federal - Department of Defense
N/A	Federal - Non-Department of Defense
N/A	Non-Profit Organization
N/A	Non-Governmental Organization Organization
N/A	Trust
N/A	Other - business, private landowner, etc.
Estimated Start Date *	
N/A	
Estimated End Date *	
N/A	
Information Link *	
N/A	
Design Life *	
N/A	
Planning, Engineering, and Permitting Cost *	
N/A	
Construction Implementation Cost *	
N/A	
Average Annual Operations & Maintenance Cost *	
N/A	
Permitting Status *	
N/A	
Funding - Cost-Share Requirements *	
N/A	
Funding - Application Costs *	
N/A	
***Additional Information** - Include dialogues w/ site manager & users here *	
N/A	

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*



Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*
085A1A000004000, 0.40 Acres; 085A1A000004100, 0.54 Acres; 085A1A000004200, 0.04; 085A1A000004300, 0.74 Acres
Owner*
Town of Onancock
Adjacent Property Owners, Parcel Size, and Use/zoning
Private Houses / Town Size Lots
Approaching Land Use Character/Characteristics
Residential and Commercial
Known Easements*
N/A

Land Features Inventory

Cover Type and Gerneral Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*
Pavement
Parking (# of spaces, restrictions)
Approximately 12 for Trailers and 25 for Vehicles
Staging/Offloading Areas for Commercial/Industrial Use
No
Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)
No
Critical Dimensions (road width, etc.)*
Market Street
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Electricity, water, communications, and sewer
Wireless Internet / Cell Service Availability
Yes
Signage (wayfinding or regulatory)
Yes
Drainage (ditches, upland erosion)*
Yes
Evidence of Activity (recreational use, commercial use, trash dumping)
Recreation and Business

Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)

Trash cans, docks, and fuel tank above ground

Site Environmental Information

Wetlands (from National Wetlands Inventory (NWI))

No Wetland designation according to National Wetlands Inventory, NWI (https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/)

RPA (100' Buffer from Wetlands)

According to county maps (https://northampton.civ.quest/) is zoned as Incorporated Town.

RMA (500' Buffer from Wetlands)

No

Floodplain (100 year and 500 year FEMA)*

No

Topography *

Rare, Threatened, Endandgered Species Potential On Site (Flora and Fauna)

No

Coastal Flood Vulnerability Mapping

Intermediate-high Sea Level Rise Mapping*

The adjoining coastal portions of site are threatened by 2020 Scenarios of Future Mean Sea Level according to Climate Mapping for Resilience and Adaptation, CMRA, U.S. Sea Level Rise - 2020 Interm

Coastal Erosion Mapping*

The site's relative susceptibility or CVI - coastal vulnerability index is characterized as Very High according to the USGS Coastal Change Hazard Portal (https://marine.usgs.gov/coastalchangehazardspor

Date of Mean Low Water Inundation of Site or Access to Site*

October 2, 2024, most recent. Coastal flooding September thru October.

Road Network Evaluations

Distance to Nearest Collector / Arterial Road*

Adjacent to Market Street

Add Any Planned or Built Multi-Modal Network

No

Waterside

Prevailing wind direction

Northeast

In-Water Features

Water Depths (if known)*

6-10 ft

Tidal Range*

2 ft

Distance to Channel and Distance to Channel Markers*

1/4 mile

Fetch*

1/2 mile

Submerged Aquatic Vegetation (SAV) Mapping

No bed indicated per VIMS Interactive SAV Map (https://www.vims.edu/research/units/programs/sav/access/maps/)

Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)

Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.

Type and Functionality*

Docks, Boat ramp, fuel tank, and marina office

Materials*

Wood and aluminium

Approximate Width and Length*

Dock fingers 25 ft and bulkhead 80 ft

Approximate Elevation*

2 ft fixed docks - floating dock 1.5 ft

Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*

No

Piles (condition, diameter, etc.)*

Good

Pile Cap*

Good

Stringers*

Good

Deck Boards*

Good

Railings*

Good

Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*

Good

Accessories (Cleats, Ladders, Ramps, Etc.)*

Cleats, swim ladders, and ramps to the floating dock

Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*

bulkhead, beach

1937 Historic Shoreline Location (provided by VIMS) *

If No Stabilization Condition*

N/A

Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*

No

Existing Stabilization Condition*

N/A

Revetment/Bulkhead/Living Shoreline/Other*

Bulkheads

Marsh Condition Waterward of Shoreline Stabilization*

N/A
Materials*
timber, steel, rock, vinyl
Other Noticed Issues From the Shoreline Waterward
N/A

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Working Waterfront Assessment - Saxis Harbor	
Project Owner (Select One)*	
X	PDC
	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
N/A	
Project Partners*	
N/A	
Project Phase (Select One)*	
N/A	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
N/A	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
N/A	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
N/A	Under Construction or Implementation - Projects in this phase involve active implementation.
N/A	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
N/A	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
N/A	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP. **	
N/A	
Scale of Benefits (Select One)*	
N/A	Individual Lot: The project is expected to only benefit an individual lot.
N/A	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
N/A	Watershed: The project is expected to benefit a HUC10 watershed area.
N/A	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*****	
9103 Starling Creek Road; Saxis, VA 23427	
Coastal Hazard Addressed (Select One or More)*	
N/A	Tidal Flooding – flooding caused by daily or extreme high tides
N/A	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
N/A	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
N/A	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
N/A	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
N/A	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
N/A	Other
Climate Standards (Select One or More)*	
N/A	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
N/A	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
N/A	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
N/A	The project considers increased rainfall
N/A	The project does not consider future sea level rise or rainfall conditions
N/A	Other Coastal Hazards Addressed
Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *****	
N/A	

Total Implementation Cost *	
N/A	
Project Identifier *	
N/A	
Owner Classification *	
N/A	Commonwealth of Virginia
N/A	Federal and/or State Recognized Tribe
N/A	Locality
N/A	Planning District Commission/Regional Commission
N/A	Federal - Department of Defense
N/A	Federal - Non-Department of Defense
N/A	Non-Profit Organization
N/A	Non-Governmental Organization Organization
N/A	Trust
N/A	Other - business, private landowner, etc.
Estimated Start Date *	
N/A	
Estimated End Date *	
N/A	
Information Link *	
N/A	
Design Life *	
N/A	
Planning, Engineering, and Permitting Cost *	
N/A	
Construction Implementation Cost *	
N/A	
Average Annual Operations & Maintenance Cost *	
N/A	
Permitting Status *	
N/A	
Funding - Cost-Share Requirements *	
N/A	
Funding - Application Costs *	
N/A	
***Additional Information** - Include dialogues w/ site manager & users here *	
N/A	

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*

Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*
1500 x1500
Owner*
Town of Saxis
Adjacent Property Owners, Parcel Size, and Use/zoning
Hurricane Tiki Bar Restaurant 400 x 400
Approaching Land Use Character/Characteristics
Restaurant and residential homes
Known Easements*
None

Land Features Inventory

Cover Type and Gerneral Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*
Gravel, Dirt, and Lawn
Parking (# of spaces, restrictions)
200
Staging/Offloading Areas for Commercial/Industrial Use
Yes, chain hoist
Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)
Yes, large vehicles can make turns on the property .
Critical Dimensions (road width, etc.)*
30 ft
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Electricity, water, communications, and sewer
Wireless Internet / Cell Service Availability
Yes
Signage (wayfinding or regulatory)
Yes
Drainage (ditches, upland erosion)*
Yes
Evidence of Activity (recreational use, commercial use, trash dumping)
Recreational use and commercial use. No trash dumping

Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)

Trash cans and bathrooms

Site Environmental Information

Wetlands (from National Wetlands Inventory (NWI))

No Wetland designation according to National Wetlands Inventory, NWI (https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/) though contiguous property to the south and east chara

RPA (100' Buffer from Wetlands)

According to county maps (https://northampton.civ.quest/) a majority of the site is zoned as Incorporated Town.

RMA (500' Buffer from Wetlands)

According to Accomack County maps (https://parcelviewer.geodecisions.com/Accomack/) The south-east portion of the site is within current RPA designation.

Floodplain (100 year and 500 year FEMA)*

Zone AE, 100 year FEMA flood plan according to FEMA's National Flood Hazard Layer (NFHL) Viewer (https://hazards-fema.maps.arcgis.com/apps/webappviewer/).

Topography *

Rare, Threatened, Endandgered Species Potential On Site (Flora and Fauna)

Yes

Coastal Flood Vulnerability Mapping

Intermediate-high Sea Level Rise Mapping*

The adjoining coastal portions of site and neighboring properties are threatened by 2020 Scenarios of Future Mean Sea Level according to Climate Mapping for Resilience and Adaptation, CMRA, U.S.

Coastal Erosion Mapping*

The site's relative susceptibility or CVI - coastal vulnerability index is characterized as Very High according to the USGS Coastal Change Hazard Portal (https://marine.usgs.gov/coastalchangehazardspor

Date of Mean Low Water Inundation of Site or Access to Site*

N/A

Road Network Evaluations

Distance to Nearest Collector / Arterial Road*

10 yards. High tides and heavy storms regularly wash out Route 695, turning Saxis into a temporary island.

Add Any Planned or Built Multi-Modal Network

No

Waterside

Prevailing wind direction

South West

In-Water Features

Water Depths (if known)*

8 ft

Tidal Range*

3 feet

Distance to Channel and Distance to Channel Markers*

Nearest channel marker is 50 yards

Fetch*

Unlimited

Submerged Aquatic Vegetation (SAV) Mapping

No bed indicated per VIMS Interactive SAV Map (https://www.vims.edu/research/units/programs/sav/access/maps/)

Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)

Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.

Type and Functionality*

2 Boat ramps

Materials*

Concrete, metal, treated wood

Approximate Width and Length*

20 x 50 boat ramps

Approximate Elevation*

On sea level

Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*

Good

Piles (condition, diameter, etc.)*

Good

Pile Cap*

Good

Stringers*

Good

Deck Boards*

Good

Railings*

Good

Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*

Good

Accessories (Cleats, Ladders, Ramps, Etc.)*

Cleats,ladders, and ramps on the dock

Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*

Eroding

1937 Historic Shoreline Location (provided by VIMS) *

If No Stabilization Condition*

N/A

Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*

Yes

Existing Stabilization Condition*

N/A

Revetment/Bulkhead/Living Shoreline/Other*

Bulkhead

Marsh Condition Waterward of Shoreline Stabilization*

Eroding but healthy
Materials*
Other Noticed Issues From the Shoreline Waterward
None

Working Waterfront Assessment	
The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.	
Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Lynnhaven Boat Ramp	
Project Owner (Select One)*	
	PDC
X	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
Michael L. Parkman (Mparkman@vbgov.com)	
Project Partners*	
N/A	
Project Phase (Select One)*	
X	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
N/A	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No

Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP.*
The Lynnhaven Boat Ramp & Beach Facility is located on the Lynnhaven River in Virginia Beach. The facility serves both commercial and recreational users. It includes temporary mooring areas, boat trailer parking areas lighting, restrooms with shower, and ice sales. The current Capital Improvement Program includes improvements to the faclity. Retrofits and improvements will likely be needed to address impacts from sea level rise, such as more frequent flooding.

Scale of Benefits (Select One)*	
	Individual Lot: The project is expected to only benefit an individual lot.
X	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.

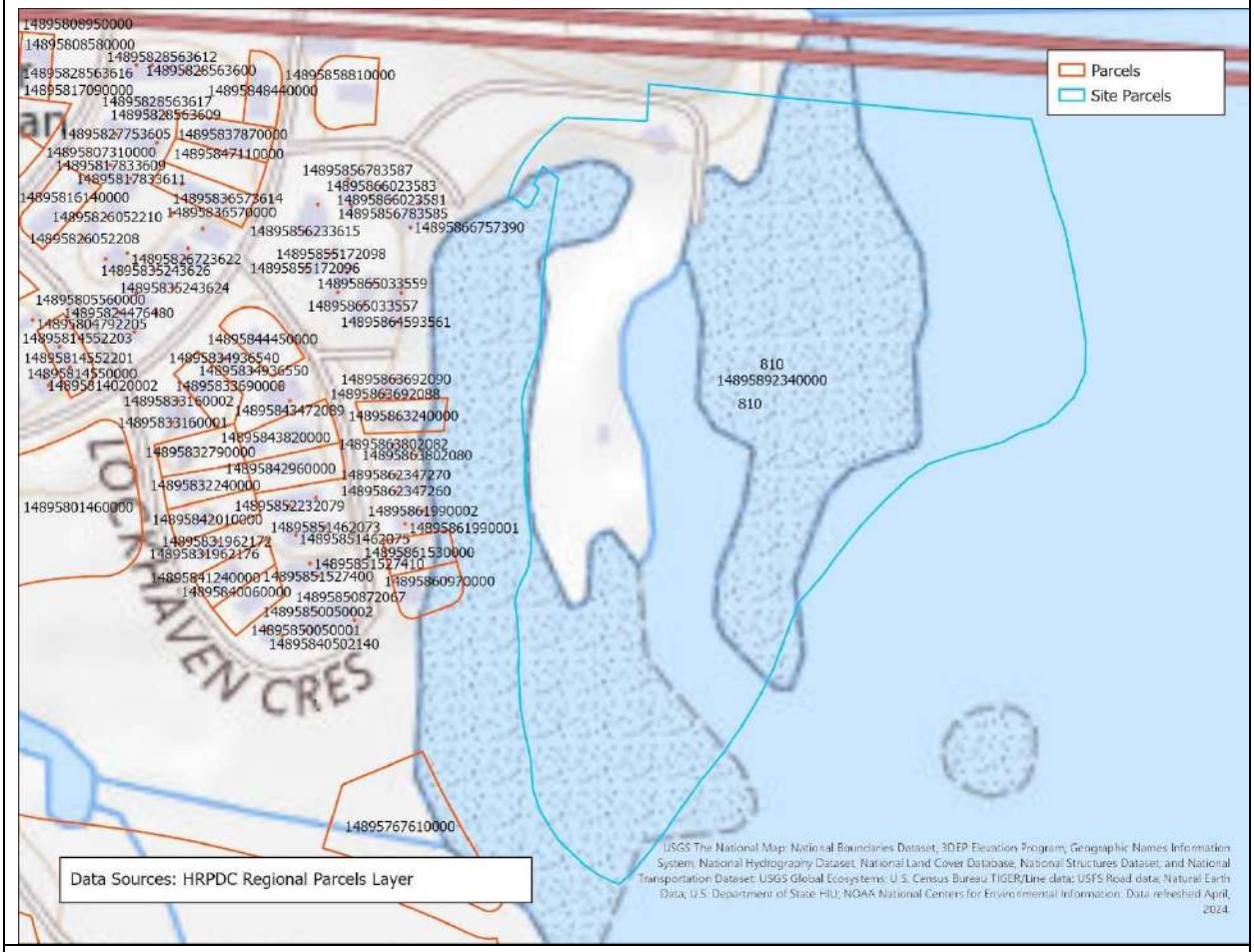
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*
3576 Piedmont Cir, Virginia Beach, VA 23455

Coastal Hazard Addressed (Select One or More)*	
X	Tidal Flooding – flooding caused by daily or extreme high tides
	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
X	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other

Climate Standards (Select One or More)*	
	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
	The project considers increased rainfall
X	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed

Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *	
N/A	
Total Implementation Cost *	
$860,000	
Project Identifier *	
N/A	
Owner Classification *	
	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
X	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization
	Trust
	Other - business, private landowner, etc.
Estimated Start Date *	
N/A	
Estimated End Date *	
N/A	
Information Link *	
https://s3.us-east-1.amazonaws.com/virginia-beach-departments-docs/budget/Budget/Adopted/FY24-to-FY29-Adopted-CIP.pdf#page=235	
Design Life *	
N/A	
Planning, Engineering, and Permitting Cost *	
N/A	
Construction Implementation Cost *	
N/A	
Average Annual Operations & Maintenance Cost *	
N/A	
Permitting Status *	
N/A	
Funding - Cost-Share Requirements *	
N/A	
Funding - Application Costs *	
N/A	
***Additional Information -** Include dialogues w/ site manager & users here *	

N/A
Site Review
The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.
Landside Property Information
Property Lines (Property Line Identification Image)*



Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*

14895892340000 (2.19 acres)

Owner*

City of Virginia Beach

Adjacent Property Owners, Parcel Size, and Use/zoning

Parcel 14895866750000 (3577 Piedmont Circle, 0.06 acres, Single Family or Duplex); Parcel 14895866020000 (3583 Piedmont Circle, 0.02 acres, Single Family or Duplex); Parcel 14895858810000 (3584 E Stratford Rd, 0.03 acres, Commercial)

Approaching Land Use Character/Characteristics

Access to the facility passes through a single-family residential neighborhood.

Known Easements*

None

Land Features Inventory

Cover Type and General Condition (paved, gravel, dirt, forested, lawn, etc.) shown on aerial image*

Parking (# of spaces, restrictions)

82 spaces for vehicles with trailers, approx. 90 spaces for passenger vehicles

Staging/Offloading Areas for Commercial/Industrial Use

Yes

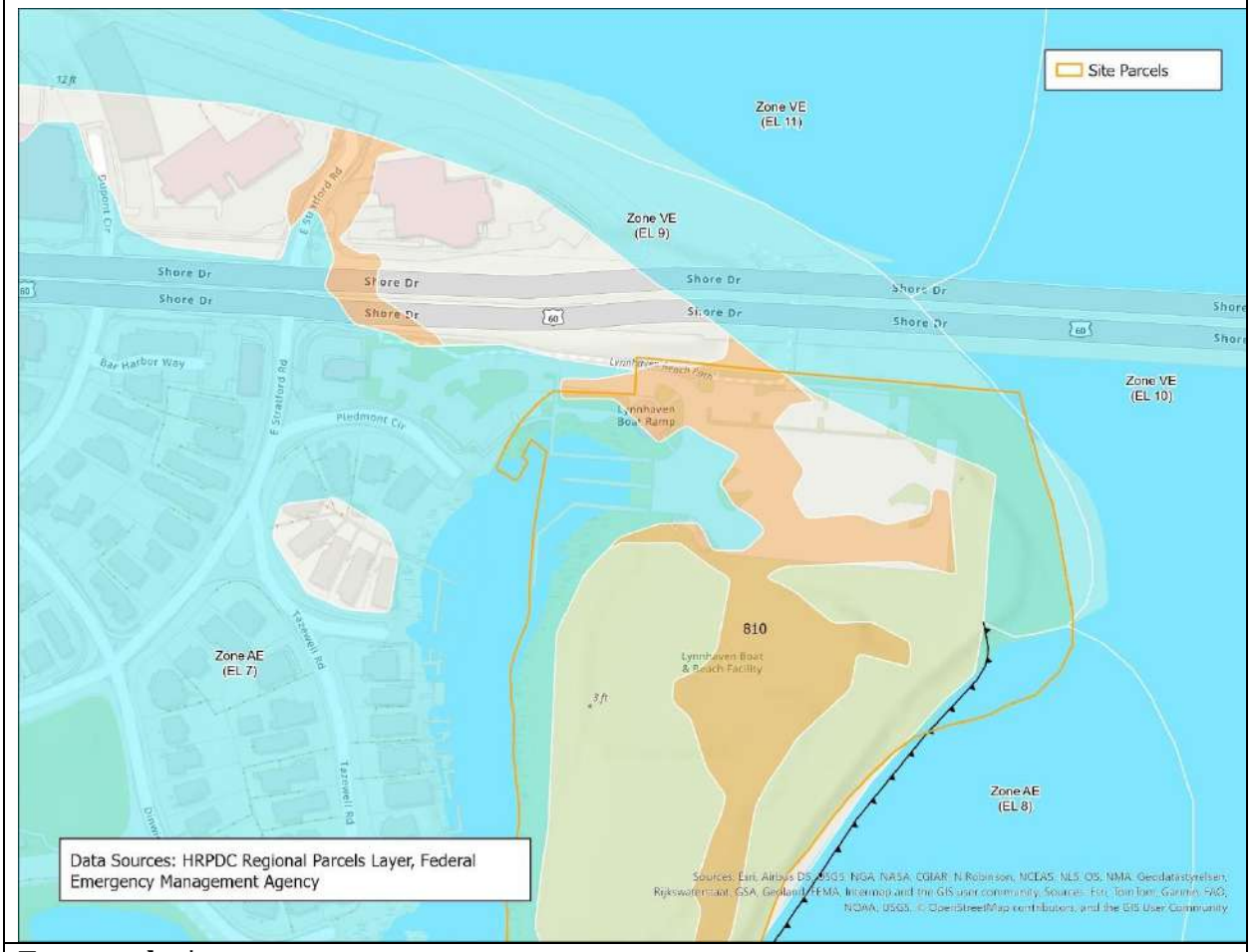
Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)

Critical Dimensions (road width, etc.)*
Access to the facility is off of Shore Drive via Lynnhaven Promenade, which appears to have a 10' to 12' drive lane. Single-lane in both directions.
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Unknown
Wireless Internet / Cell Service Availability
Cell
Signage (wayfinding or regulatory)
Yes, signage off of Shore Drive
Drainage (ditches, upland erosion)*
No onsite stormwater management
Evidence of Activity (recreational use, commercial use, trash dumping)
Significant commercial and recreational use
Other (may include trash cans, portable toilets, furnishings, buildings or temporary structures present, etc.)
There is a structure on site with restrooms and ice sales.
Site Environmental Information
Wetlands (from National Wetlands Inventory (NWI))

RPA (100' Buffer from Wetlands)

RMA (500' Buffer from Wetlands)

Floodplain (100 year and 500 year FEMA)*


Site Parcels
Zone VE
(EL 11)
Zone VE
(EL 9)
Zone VE
(EL 10)
Zone AE
(EL 7)
Zone AE
(EL 8)
Shore Dr
Bar Harbor Way
E Stratford Rd
Piedmont Cir
Tazewell Rd
Lynnhaven
Boat Ramp
810
Lynnhaven Boat
& Beach Facility
3 ft
Data Sources: HRPDC Regional Parcels Layer, Federal Emergency Management Agency

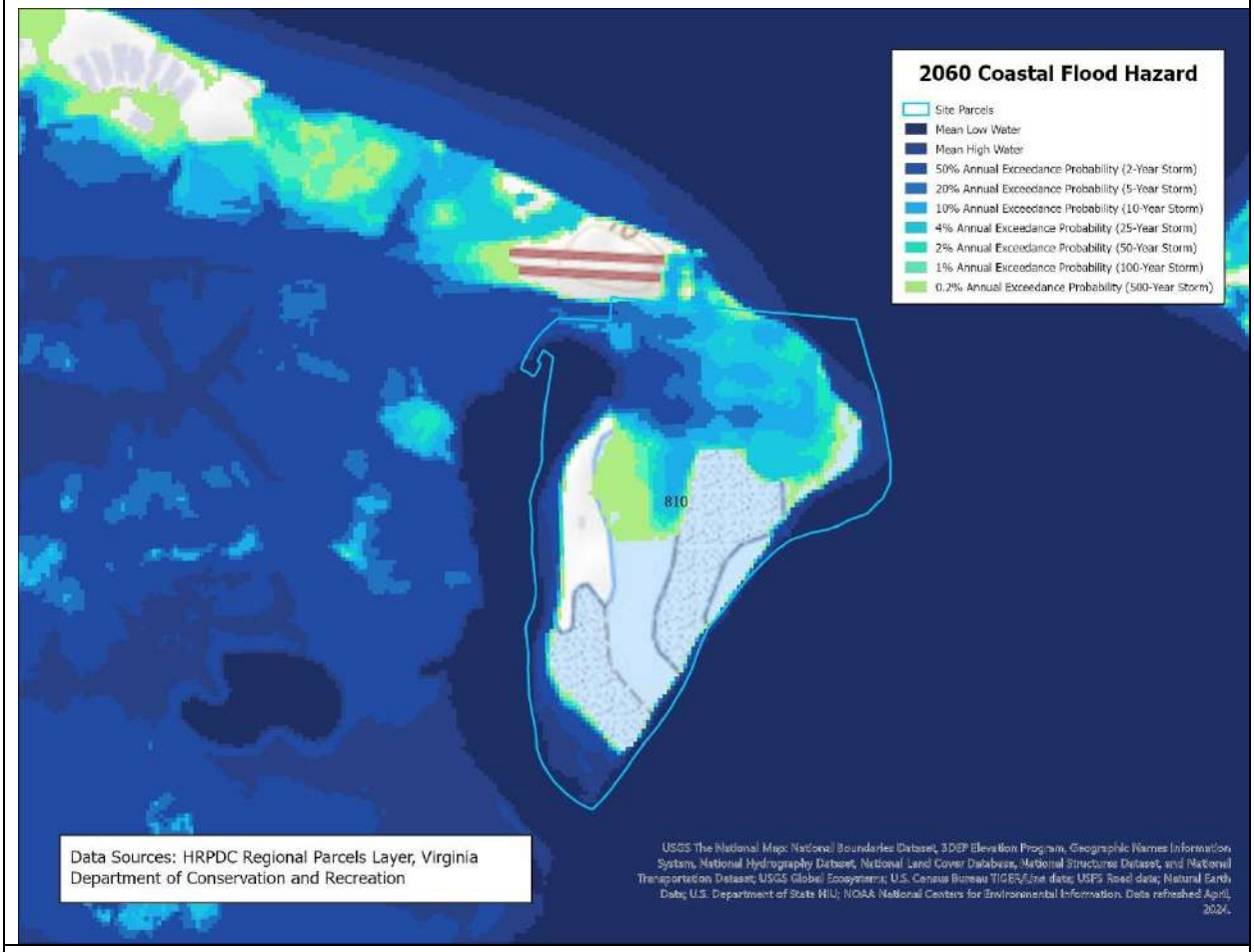
Topography *

Rare, Threatened, Endangered Species Potential On Site (Flora and Fauna)

Unknown

Coastal Flood Vulnerability Mapping

Intermediate-high Sea Level Rise Mapping*



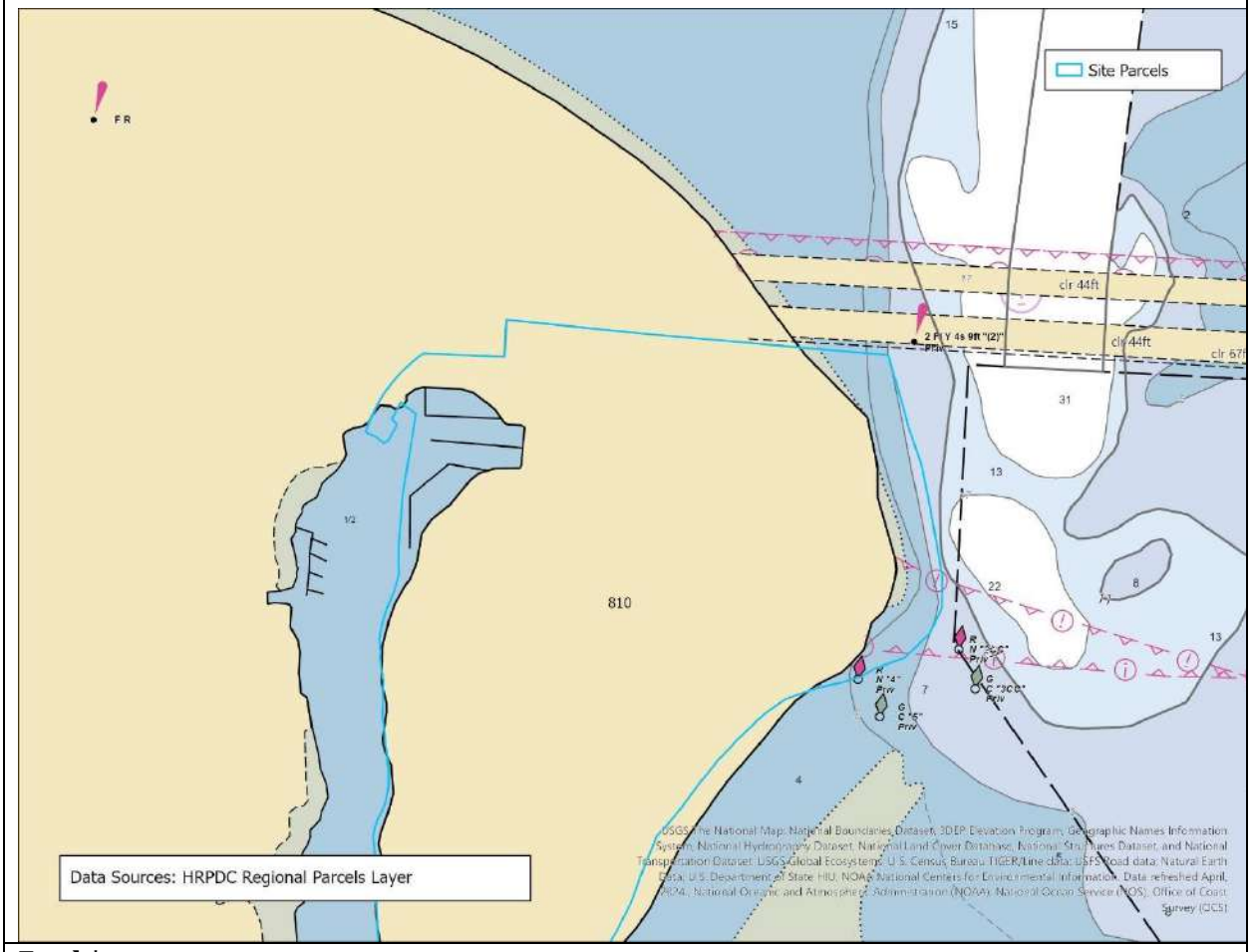
Coastal Erosion Mapping*

Date of Mean Low Water Inundation of Site or Access to Site*

2065

Archaeological and Cultural Resources (obtained through Virginia Cultural Resources Information System (V-CRIS))

Unknown
Road Network Evaluations
Distance to Nearest Collector / Arterial Road*
Site is available from Shore Drive via Lynnhaven Promenade
Add Any Planned or Built Multi-Modal Network
N/A
Waterside
Prevailing wind direction
Summer - southwest, Winter - northeast
In-Water Features
Water Depths (if known)*
Unknown
Tidal Range*
Approximately 2’ to 3’
Distance to Channel and Distance to Channel Markers*



Fetch*

Low

Submerged Aquatic Vegetation (SAV) Mapping

Unknown

Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)

Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.

Type and Functionality*

The facility consists of concrete boat ramps with wood piers and walkways.

Materials*

Wood, concrete

Approximate Width and Length*

Boat ramps are approximately 25' across.

Approximate Elevation*

4' NAVD88
Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*
Good
Piles (condition, diameter, etc.)*
Good
Pile Cap*
Good
Stringers*
Good
Deck Boards*
Good
Railings*
Good
Hardware (bolts fastening stringers, nails/screws holding deck boards down, etc.)*
Good
Accessories (Cleats, Ladders, Ramps, Etc.)*
Good
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
Except for the boat ramps, the shoreline appears to be natural.
1949 Historic Shoreline Location (provided by VIMS) *

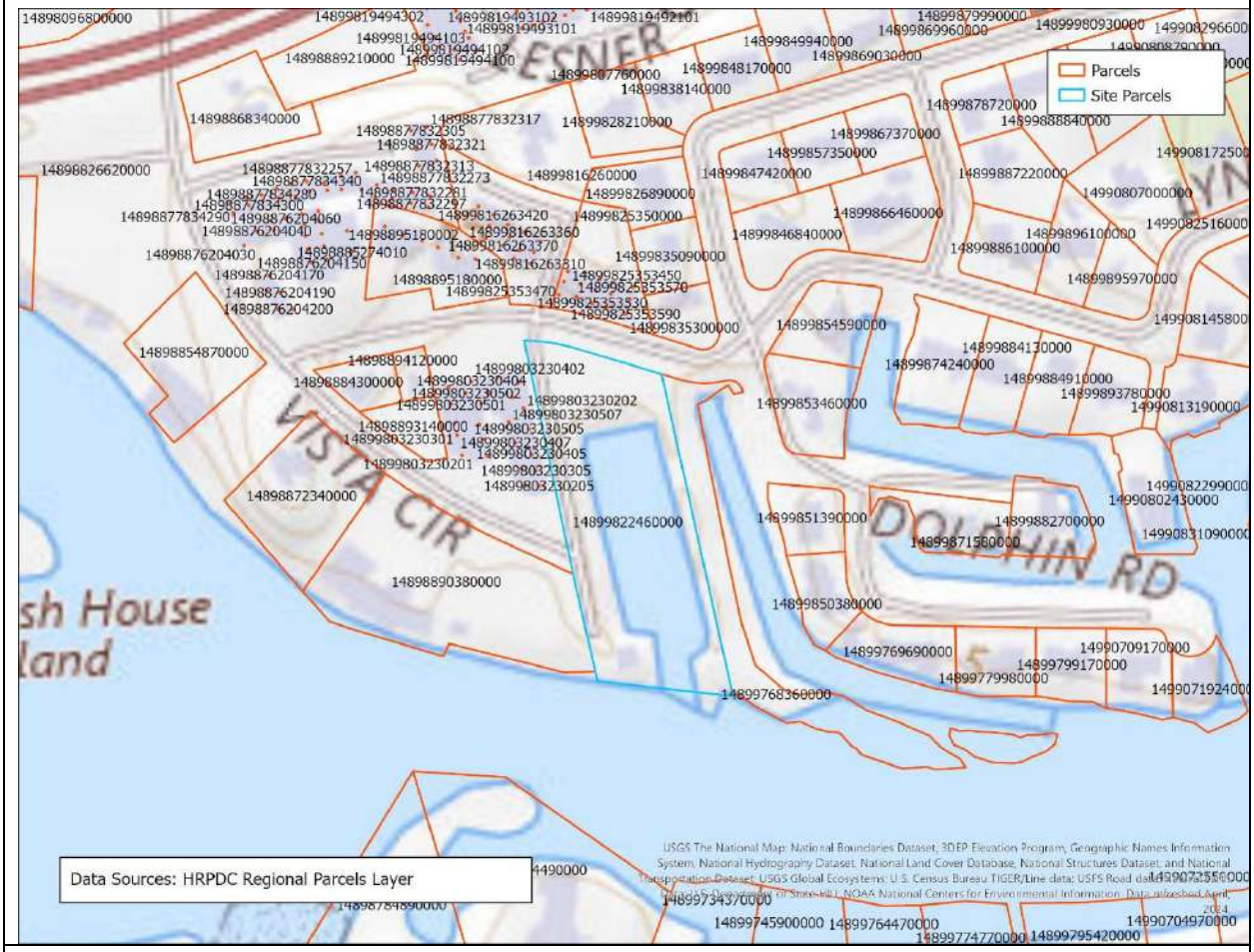
If No Stabilization Condition*
Shoreline appears to be in good condition, but is undefended except for the ramps
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
Marsh
Existing Stabilization Condition*
Stable
Revetment/Bulkhead/Living Shoreline/Other*
Natural
Marsh Condition Waterward of Shoreline Stabilization*
N/A
Materials*
N/A
Other Noticed Issues From the Shoreline Waterward
N/A

Working Waterfront Assessment	
The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.	
Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Lynnhaven Municipal Marina	
Project Owner (Select One)*	
	PDC
X	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
Michael L. Parkman (Mparkman@vbgov.com)	
Project Partners*	
N/A	
Project Phase (Select One)*	
X	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
N/A	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No

Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP.*	
The Lynnhaven Municipal Marina is located on the Lynnhaven River in Virginia Beach. The facility serves both commercial and recreational users. It includes 50 boat slips available to either recreational or commercial users, freshwater and electrical hookups, and a pumpout station. Retrofits and improvements will likely be needed to address impacts from sea level rise, such as more frequent flooding.	
Scale of Benefits (Select One)*	
	Individual Lot: The project is expected to only benefit an individual lot.
X	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.**	
3576 Piedmont Cir, Virginia Beach, VA 23455	
Coastal Hazard Addressed (Select One or More)*	
X	Tidal Flooding – flooding caused by daily or extreme high tides
	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
X	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other
Climate Standards (Select One or More)*	
	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
	The project considers increased rainfall
X	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed

Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *****	
N/A	
Total Implementation Cost *	
N/A	
Project Identifier *	
N/A	
Owner Classification *	
	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
X	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization
	Trust
	Other - business, private landowner, etc.
Estimated Start Date *	
N/A	
Estimated End Date *	
N/A	
Information Link *	
https://parks.virginiabeach.gov/outdoors/beach-boat-facilities/lynnhaven-municipal-marina	
Design Life *	
N/A	
Planning, Engineering, and Permitting Cost *	
N/A	
Construction Implementation Cost *	
N/A	
Average Annual Operations & Maintenance Cost *	
N/A	
Permitting Status *	
N/A	
Funding - Cost-Share Requirements *	
N/A	
Funding - Application Costs *	
N/A	
Additional Information -** Include dialogues w/ site manager & users here **	

N/A
Site Review
The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.
Landside Property Information
Property Lines (Property Line Identification Image)*



Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*

14899822460000 (0.34 acres)

Owner*

City of Virginia Beach

Adjacent Property Owners, Parcel Size, and Use/zoning

Parcel 14899768360000 (3201 Lynnhaven Drive, 0.15 acres, Undeveloped); Parcel 14899803230000 (2140 Vista Circle, 0.13 acres, multifamily); Parcel 14898890380000 (2413 Vista Circle, 0.25 acres, Commercial)

Approaching Land Use Character/Characteristics

Access to the facility passes through a single-family residential neighborhood.

Known Easements*

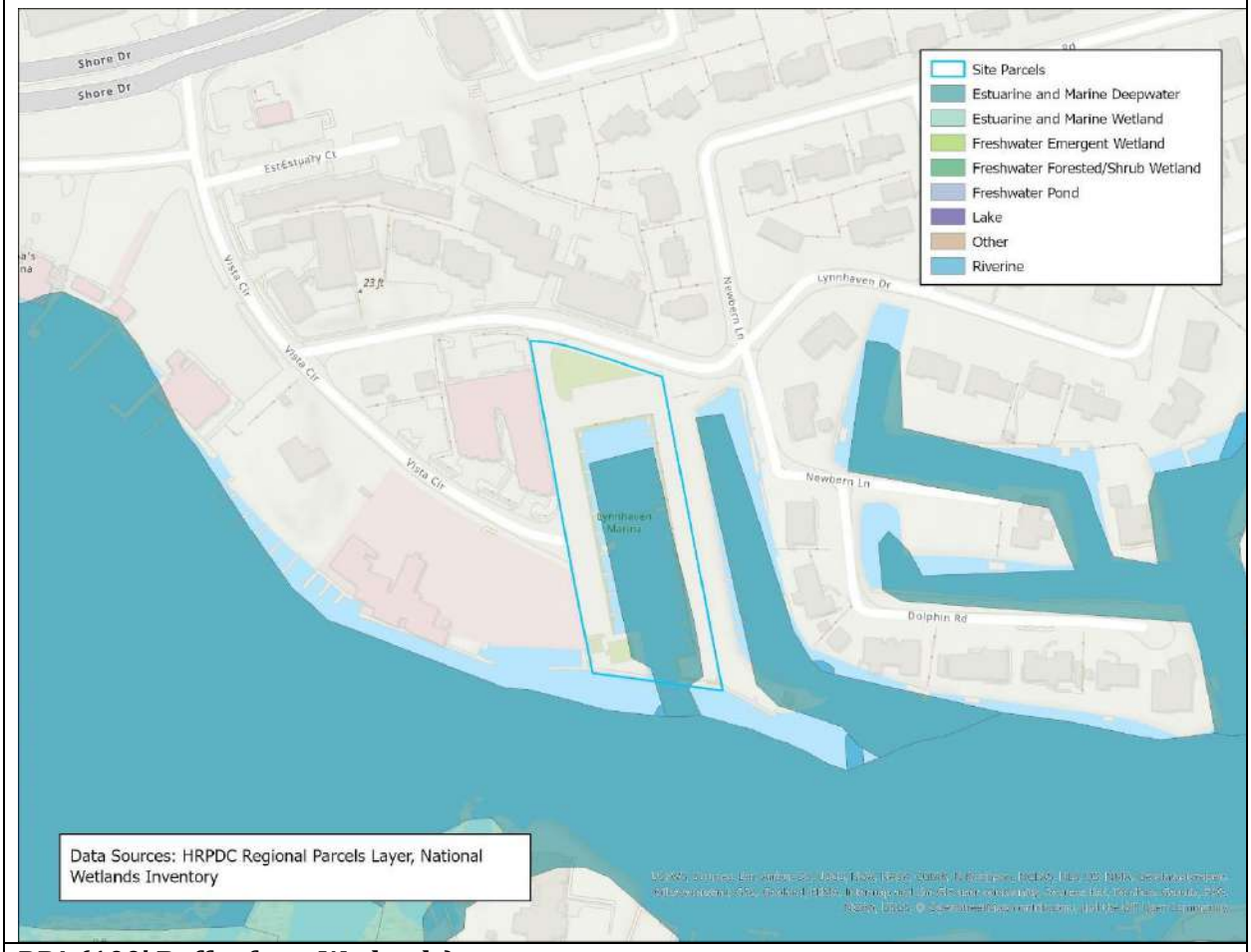
None

Land Features Inventory

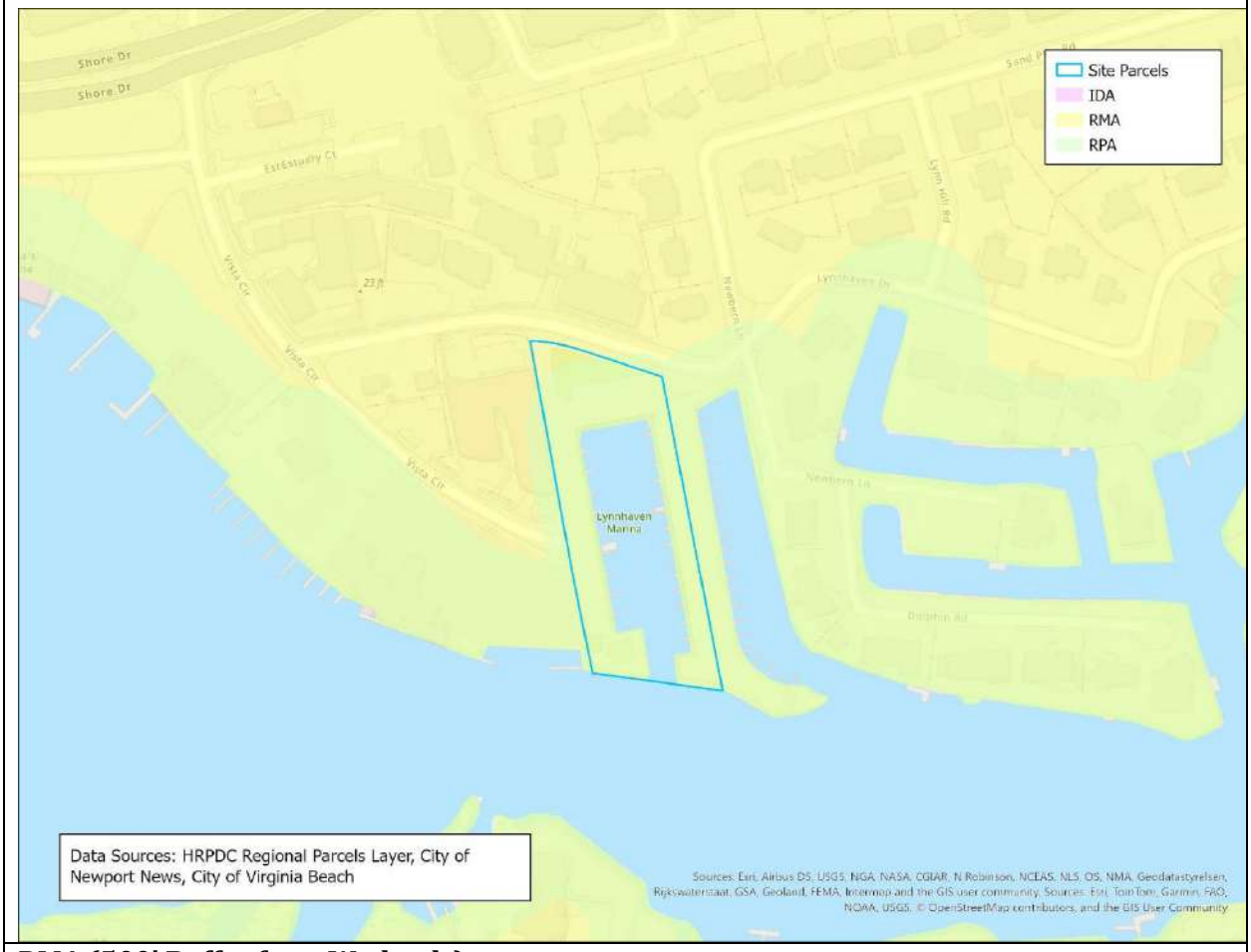
Cover Type and General Condition (paved, gravel, dirt, forested, lawn, etc.) shown on aerial image*

Parking (# of spaces, restrictions)
Approximately 85 spaces restricted to slip owners
Staging/Offloading Areas for Commercial/Industrial Use
Yes
Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)

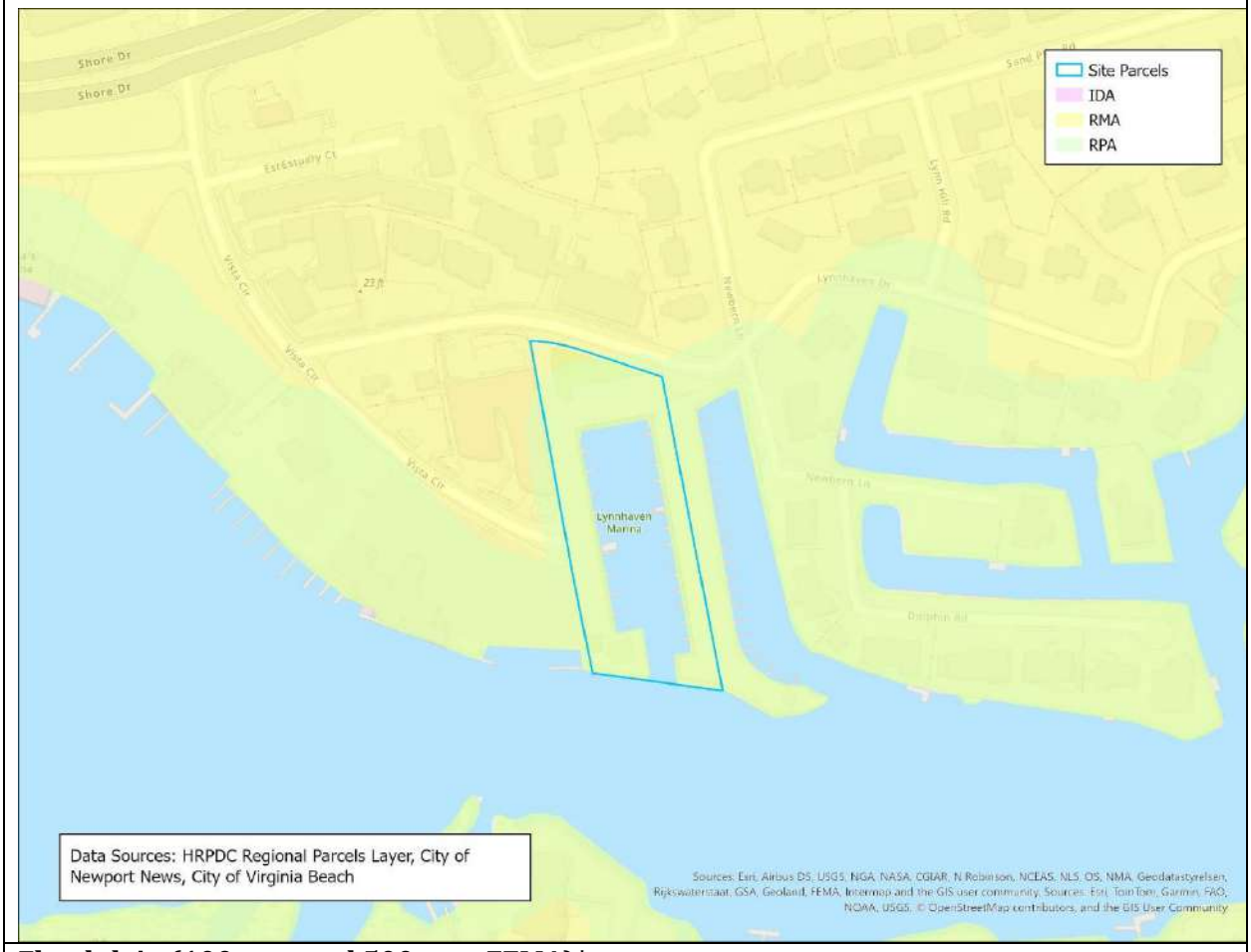
Critical Dimensions (road width, etc.)*
Access to the facility is off of Shore Drive via Lynnhaven Promenade, which appears to have a 10' to 12' drive lane. Single-lane in both directions.
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Yes
Wireless Internet / Cell Service Availability
Cell
Signage (wayfinding or regulatory)
Yes
Drainage (ditches, upland erosion)*
Urban stormwater management
Evidence of Activity (recreational use, commercial use, trash dumping)
Significant recreational use with at least some commercial use evident
Other (may include trash cans, portable toilets, furnishings, buildings or temporary structures present, etc.)
There do not appear to be any permanent structures on site.
Site Environmental Information
Wetlands (from National Wetlands Inventory (NWI))



RPA (100' Buffer from Wetlands)



RMA (500' Buffer from Wetlands)



Floodplain (100 year and 500 year FEMA)*


Site Parcels
Shore Dr
Sand Pine Rd
Estuary Estuary Ct
Vista Cir
23 ft
Lynnhaven Dr
Newbern Ln
Lynn Hill Rd
Lynnhaven Marina
Zone AE
(EL 7)
Dolphin Rd
Zone AE
(EL 8)
Data Sources: HRPDC Regional Parcels Layer, Federal Emergency Management Agency
Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

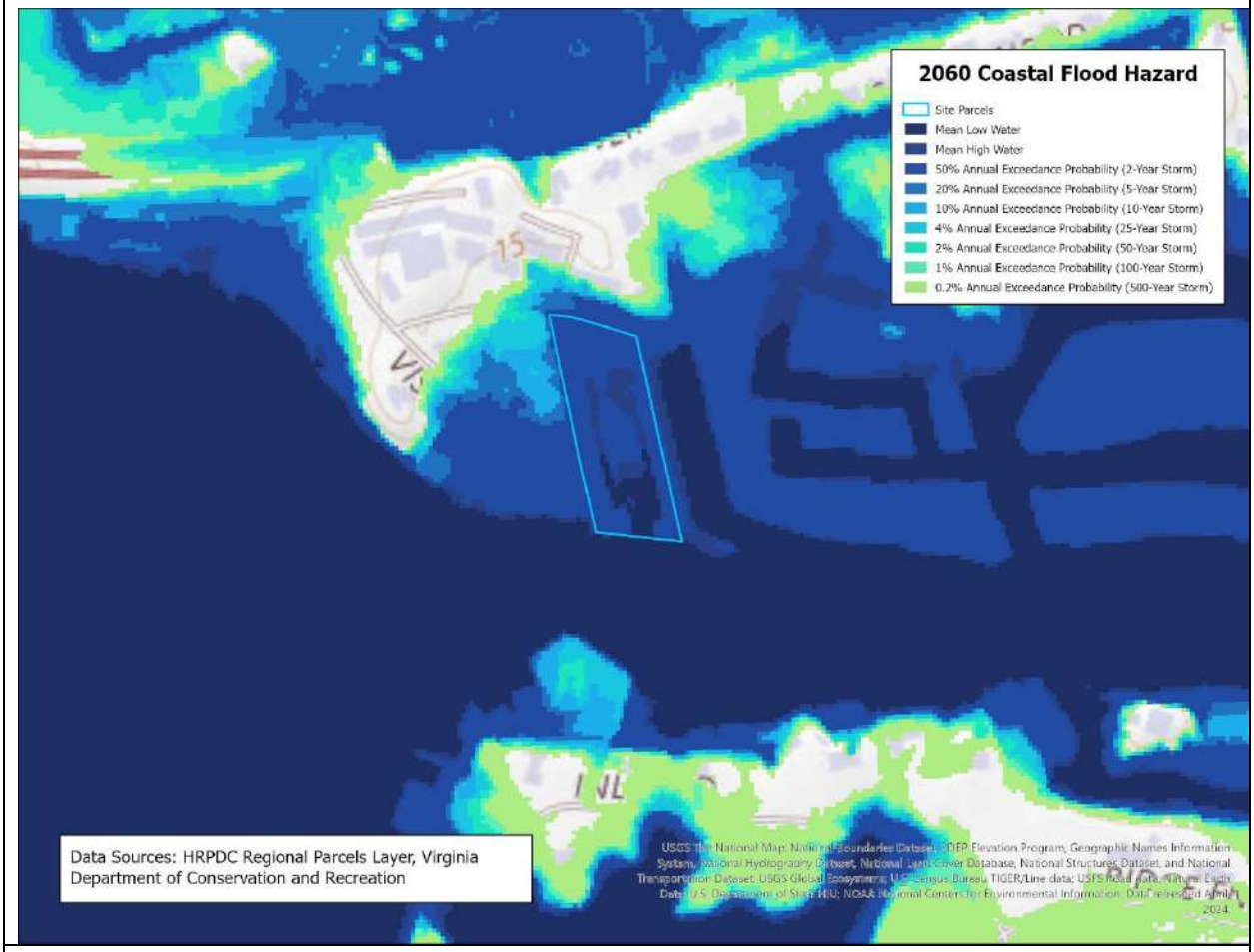
Topography *

Rare, Threatened, Endangered Species Potential On Site (Flora and Fauna)

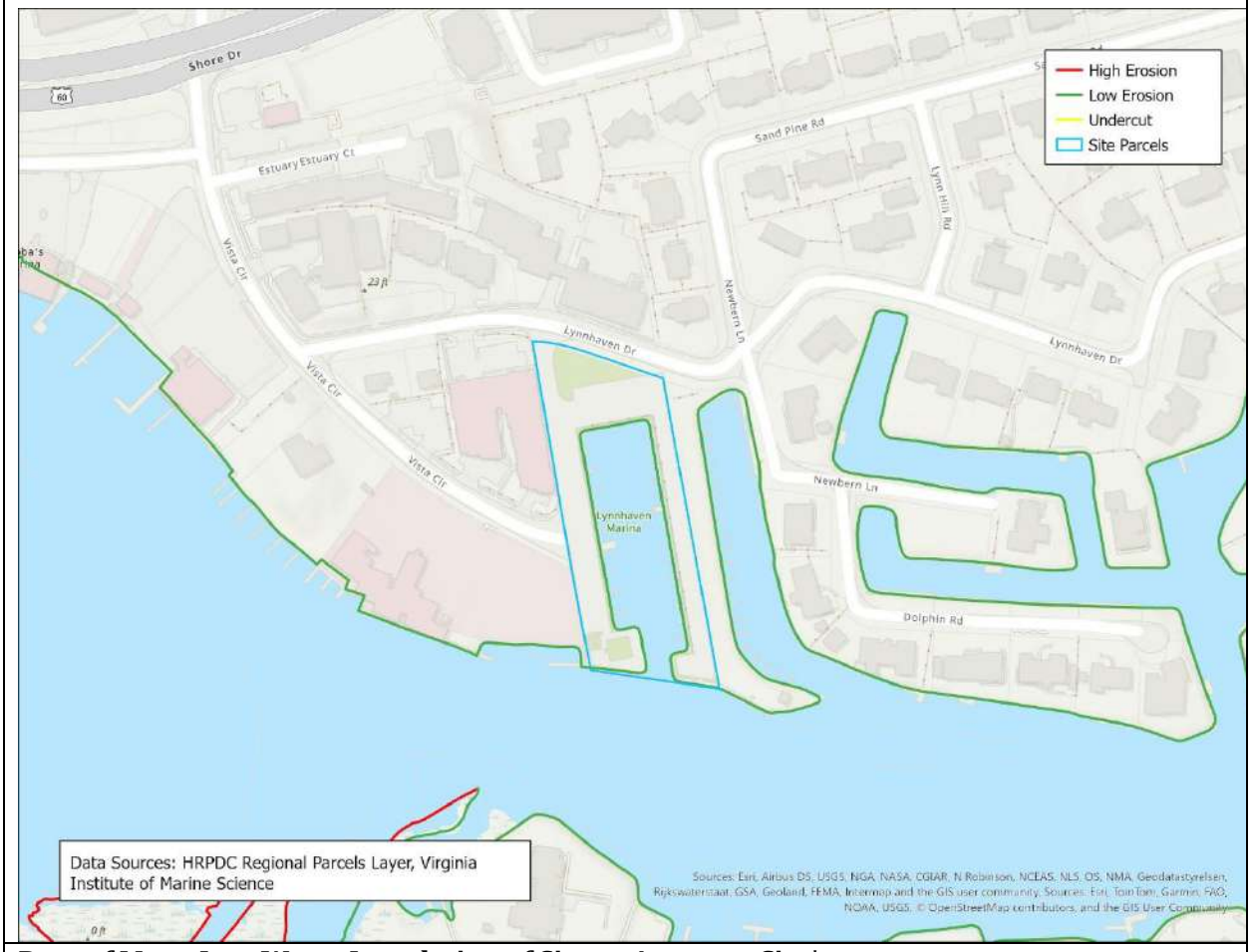
Unknown

Coastal Flood Vulnerability Mapping

Intermediate-high Sea Level Rise Mapping*



Coastal Erosion Mapping*

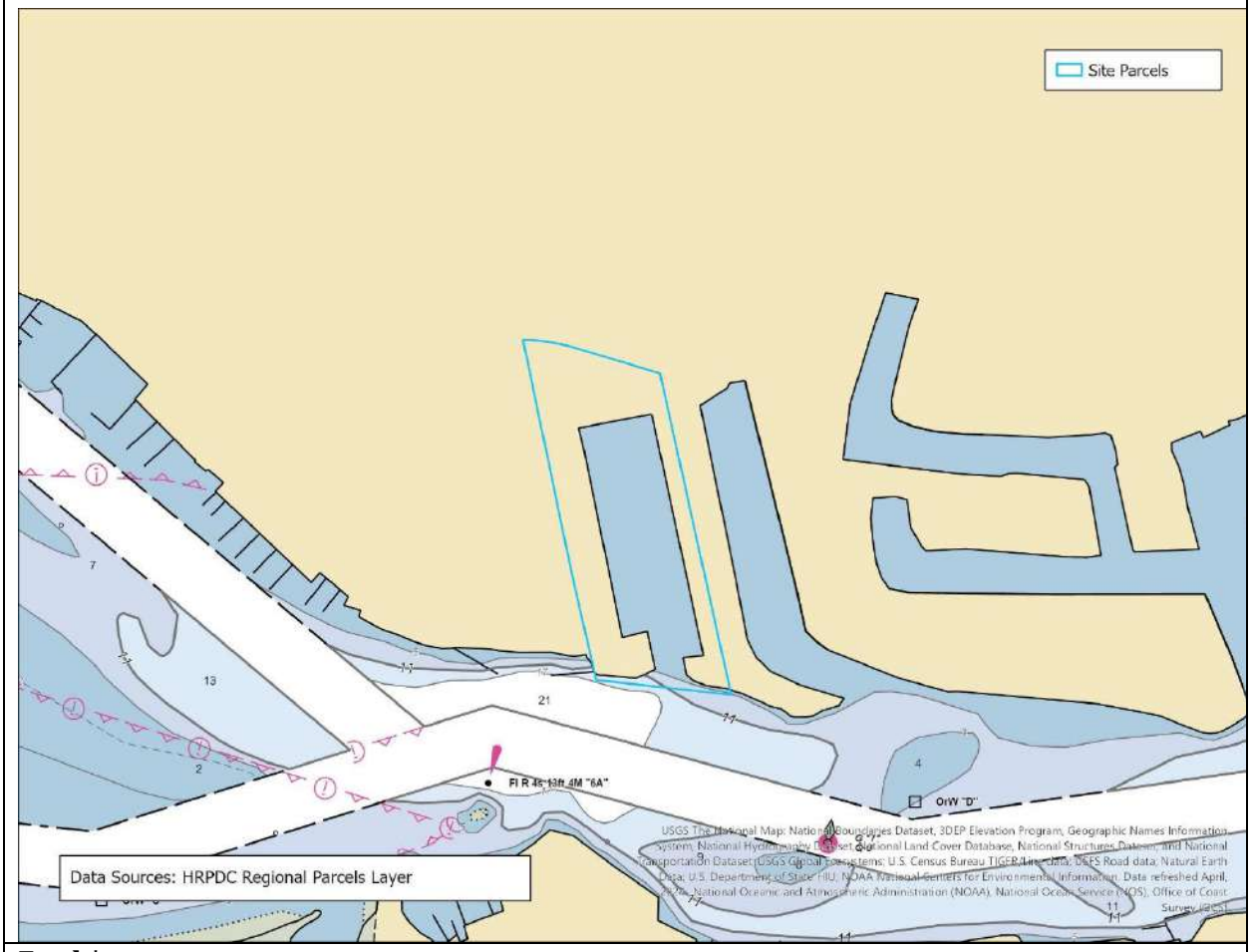


Date of Mean Low Water Inundation of Site or Access to Site*

2065

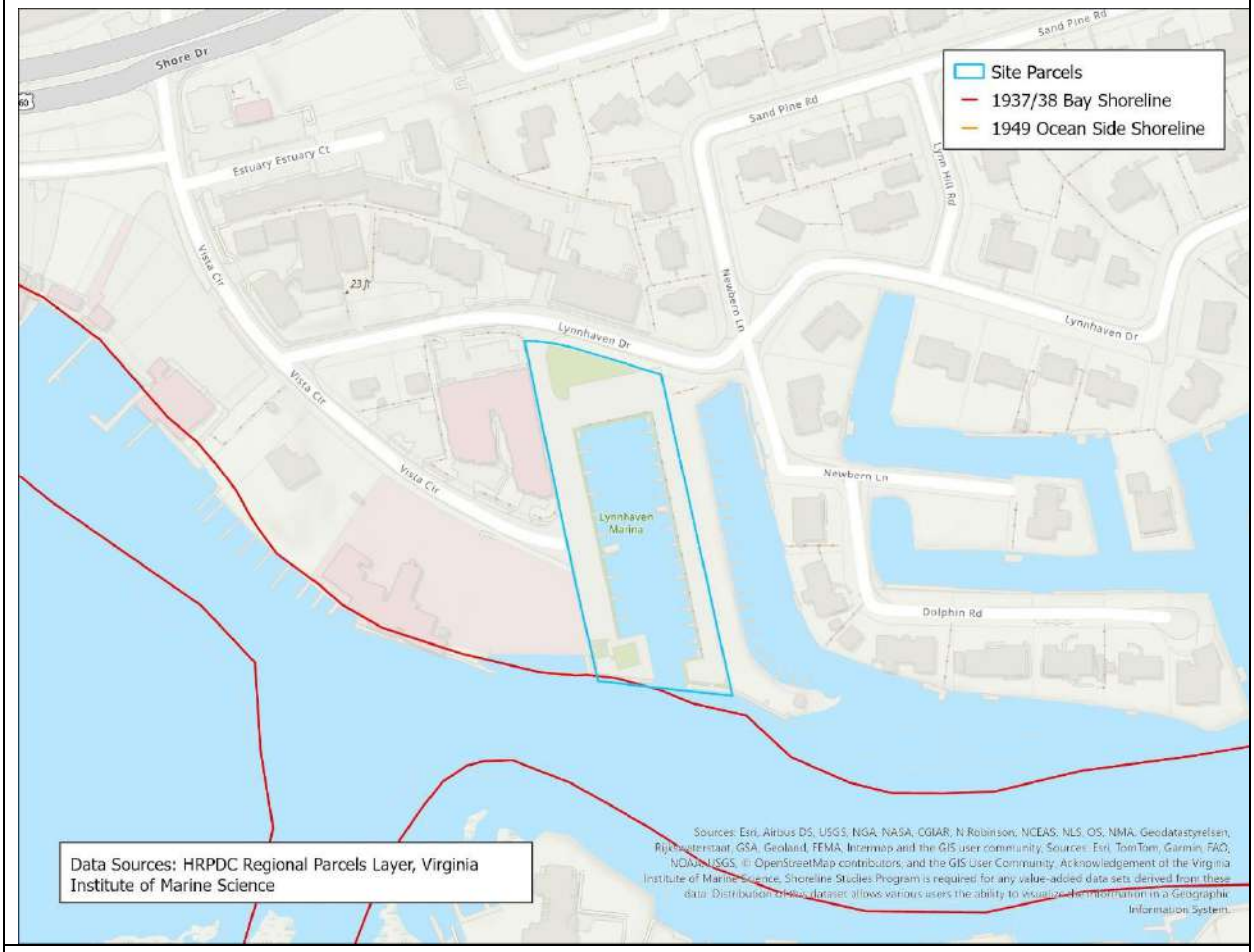
Archaeological and Cultural Resources (obtained through Virginia Cultural Resources Information System (V-CRIS))

Unknown
Road Network Evaluations
Distance to Nearest Collector / Arterial Road*
Site is available from Shore Drive via Lynnhaven Drive
Add Any Planned or Built Multi-Modal Network
N/A
Waterside
Prevailing wind direction
Summer - southwest, Winter - northeast
In-Water Features
Water Depths (if known)*
Unknown
Tidal Range*
Approximately 2’ to 3’
Distance to Channel and Distance to Channel Markers*



Fetch*
Low
Submerged Aquatic Vegetation (SAV) Mapping
No
Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)
Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.
Type and Functionality*
The facility consists of concrete moors with wood boat slips.
Materials*
Wood, concrete
Approximate Width and Length*
N/A
Approximate Elevation*

4' NAVD88
Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*
Good
Piles (condition, diameter, etc.)*
Good
Pile Cap*
Good
Stringers*
Good
Deck Boards*
Good
Railings*
Good
Hardware (bolts fastening stringers, nails/screws holding deck boards down, etc.)*
Good
Accessories (Cleats, Ladders, Ramps, Etc.)*
Good
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
The shoreline is bulkheaded.
1949 Historic Shoreline Location (provided by VIMS) *



If No Stabilization Condition*
N/A
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
N/A
Existing Stabilization Condition*
Stable
Revetment/Bulkhead/Living Shoreline/Other*
Bulkhead
Marsh Condition Waterward of Shoreline Stabilization*
N/A
Materials*
N/A
Other Noticed Issues From the Shoreline Waterward
N/A

Working Waterfront Assessment	
The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.	
Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Menchville Marina Improvements	
Project Owner (Select One)*	
	PDC
X	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
Robert Pappas (khuukx@nnva.gov)	
Project Partners*	
N/A	
Project Phase (Select One)*	
	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
X	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
N/A	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No

Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP.*
The City of Newport News (the City) is pursuing improvements to the Menchville Marina. Proposed improvements include lighting improvements, dock improvements/repairs, shoreline improvements, and installation of new docks. The City has received grant funding for a portion of the improvements and expects additional grants in the future to complete the work in phases. The full design is to be completed under the first grant as well as the installation of the lighting improvements. The City's total expected budget for this project is $1,400,000 and is to include design, environmental permitting, utility relocation, land acquisition, construction, and 15% construction contingency.

Scale of Benefits (Select One)*	
	Individual Lot: The project is expected to only benefit an individual lot.
X	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.

Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.****
494, 520, 522, and 524 Menchville Road S, Newport News, VA 23602

Coastal Hazard Addressed (Select One or More)*	
X	Tidal Flooding – flooding caused by daily or extreme high tides
	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
X	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other

Climate Standards (Select One or More)*	
	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
	The project considers increased rainfall
X	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed

Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *	
N/A	
Total Implementation Cost *	
$6,885,000	
Project Identifier *	
N/A	
Owner Classification *	
	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
X	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization
	Trust
	Other - business, private landowner, etc.
Estimated Start Date *	
11/5/2018	
Estimated End Date *	
5/27/2025	
Information Link *	
https://apps.nnva.gov/ps/Project.aspx?id=918	
Design Life *	
< 20 years	
Planning, Engineering, and Permitting Cost *	
$464,000	
Construction Implementation Cost *	
$6,421,000	
Average Annual Operations & Maintenance Cost *	
N/A	
Permitting Status *	
Permitted	
Funding - Cost-Share Requirements *	
N/A	
Funding - Application Costs *	
N/A	
***Additional Information -** Include dialogues w/ site manager & users here *	

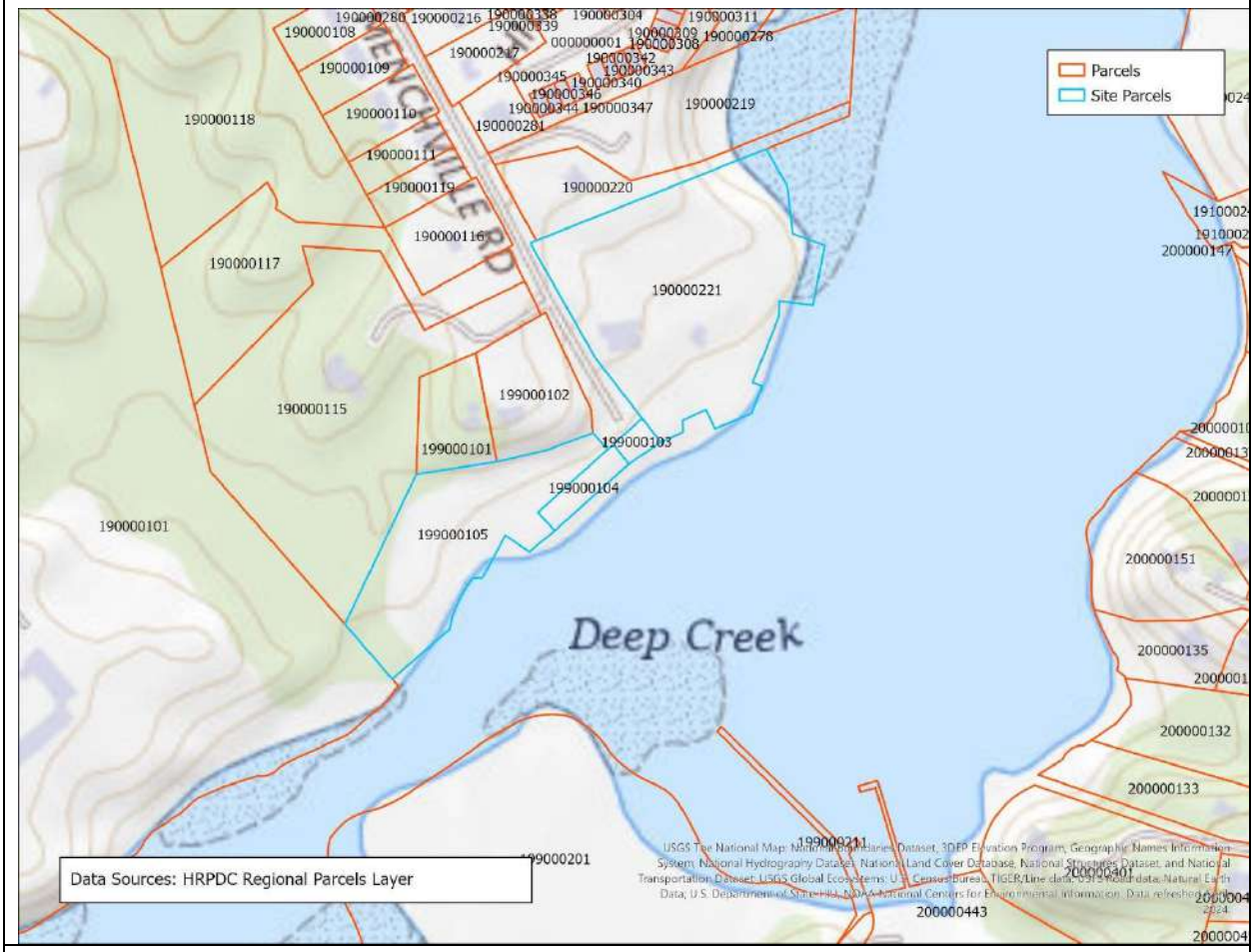
Part of the funding for these improvements came from the Port Host Communities Revitalization Fund, which is administered by the Virginia Department of Housing and Community Development. The marina is owned by the City of Newport News, but it is leased and managed by James River Holdings. The marina is a major facility for offloading and distributing seafood, including oysters.

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*



Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*

190000221 (4.62 acres), 199000103 (0.1 acres), 199000104 (0.23 acres), 199000105 (2.44 acres)

Owner*

City of Newport News

Adjacent Property Owners, Parcel Size, and Use/zoning

Parcel 190000220 (472 Menchville Rd S, John and Janet Rippy, 2.19 acres, Single-Family Detached); 508 Parcel 199000102 (508 Menchville Rd S, Adams Leona Franske, Adams Trust, 1.00 acres, Single Family Detached); Parcel 199000101 (504 Menchville Rd S, Selwyn L Haynes, 0.68 acres, Single Family Detached); Parcel 190000115 (491 Menchville Rd S, Charlie M Faulk et ux, 5.33 acres, Single Family Detached); Parcel 190000101 (100 City Farm Rd, City of Newport News, 249.29 acres, Commercial)

Approaching Land Use Character/Characteristics

Single family detached homes

Known Easements*

None

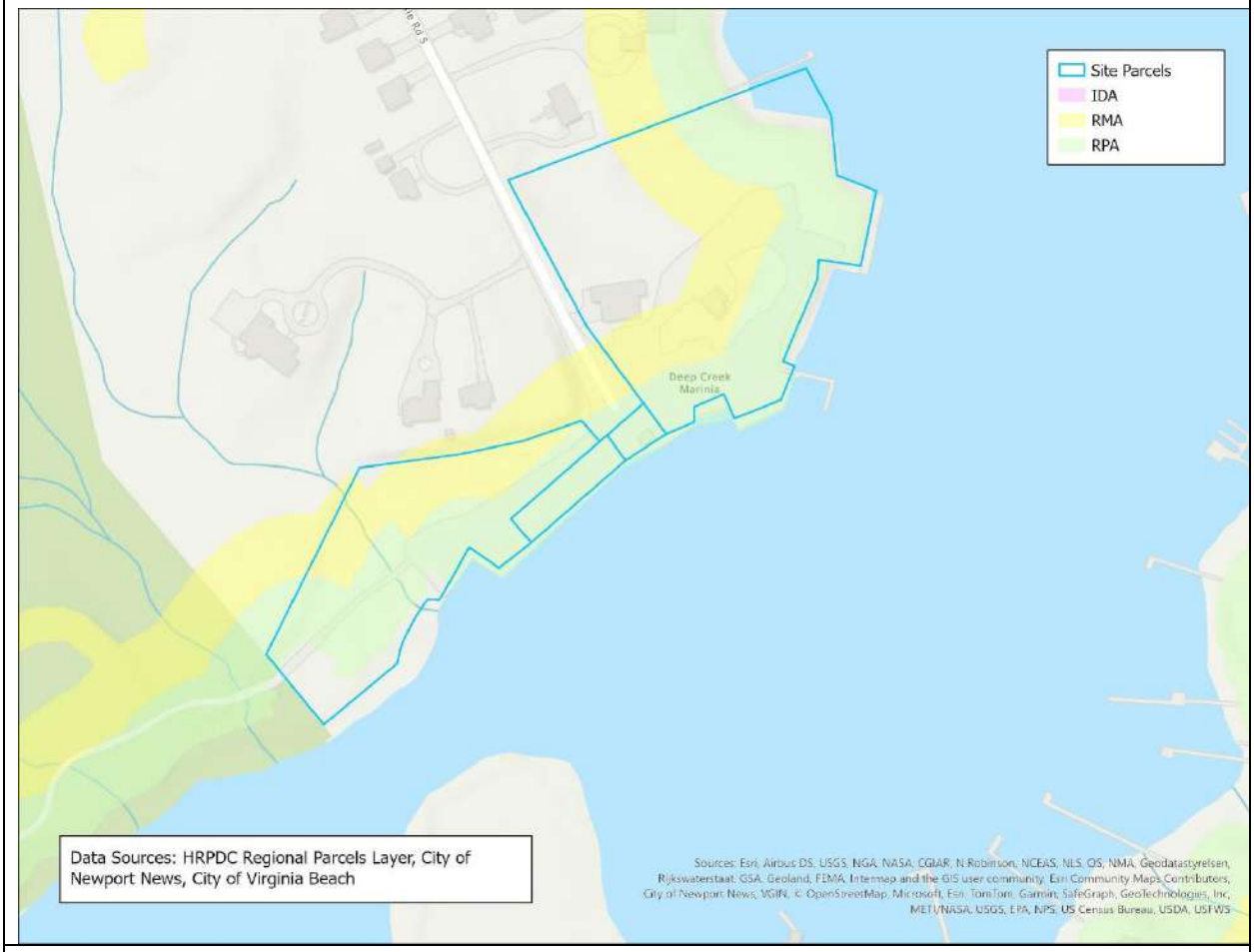
Land Features Inventory

Cover Type and General Condition (paved, gravel, dirt, forested, lawn, etc.) shown on aerial image*

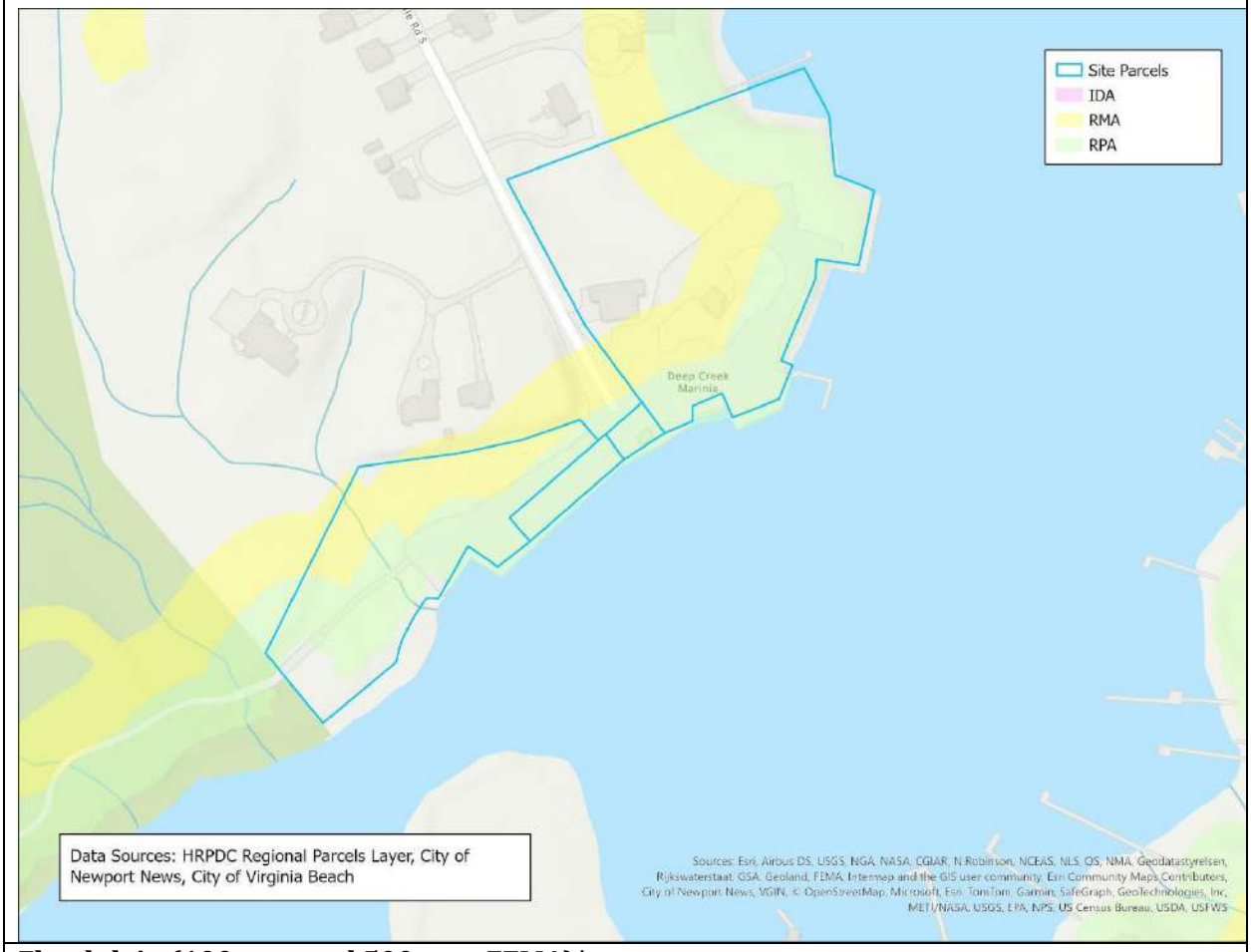
Parking (# of spaces, restrictions)
> 20 spaces, no restrictions
Staging/Offloading Areas for Commercial/Industrial Use
Yes
Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)

Critical Dimensions (road width, etc.)*
Access to the facility is off of Menchville Rd S, which appears to be between 20' and 25' in width
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Yes
Wireless Internet / Cell Service Availability
Cell
Signage (wayfinding or regulatory)
Unknown
Drainage (ditches, upland erosion)*
No onsite stormwater management
Evidence of Activity (recreational use, commercial use, trash dumping)
Significant commercial use
Other (may include trash cans, portable toilets, furnishings, buildings or temporary structures present, etc.)
Two permanent structures on site
Site Environmental Information
Wetlands (from National Wetlands Inventory (NWI))

RPA (100' Buffer from Wetlands)



RMA (500' Buffer from Wetlands)



Floodplain (100 year and 500 year FEMA)*


Site Parcels
Zone VE
(EL 10)
Zone VE
(EL 9)
Zone AE
(EL 8)
Zone AE
(EL 9)
Zone VE
(EL 10)
Data Sources: HRPDC Regional Parcels Layer, Federal Emergency Management Agency

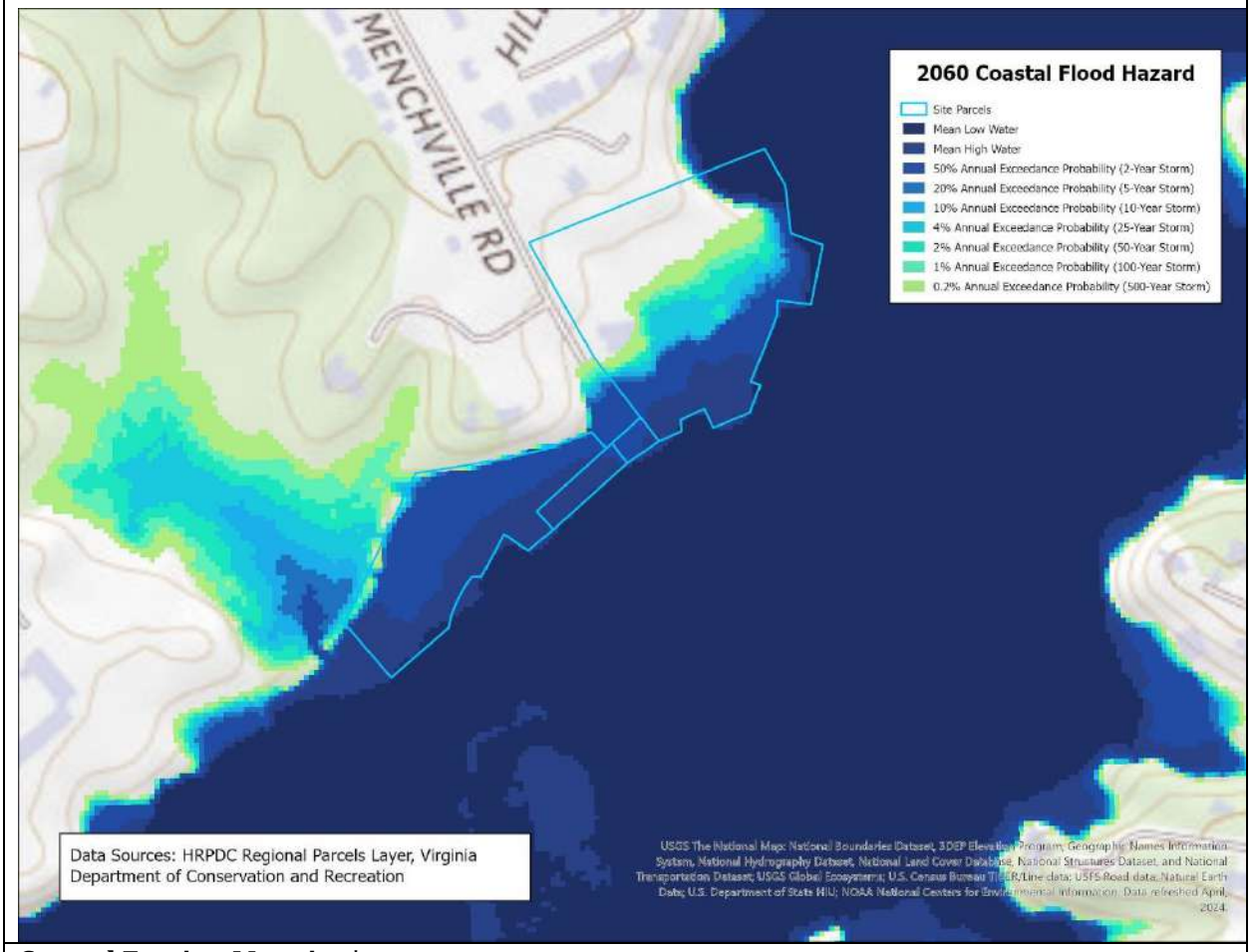
Topography *

Rare, Threatened, Endangered Species Potential On Site (Flora and Fauna)

Unknown

Coastal Flood Vulnerability Mapping

Intermediate-high Sea Level Rise Mapping*



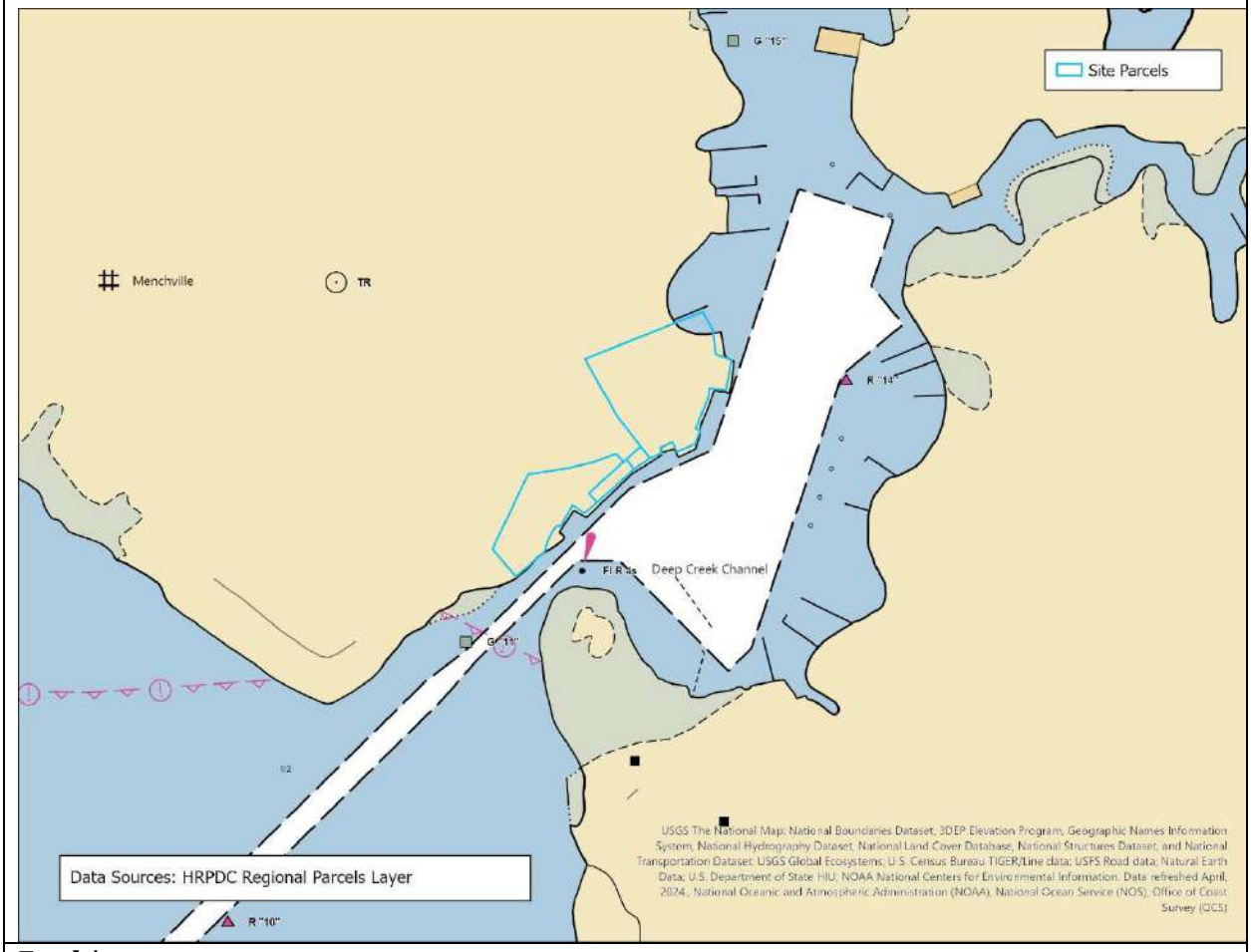
Coastal Erosion Mapping*

Date of Mean Low Water Inundation of Site or Access to Site*

2050

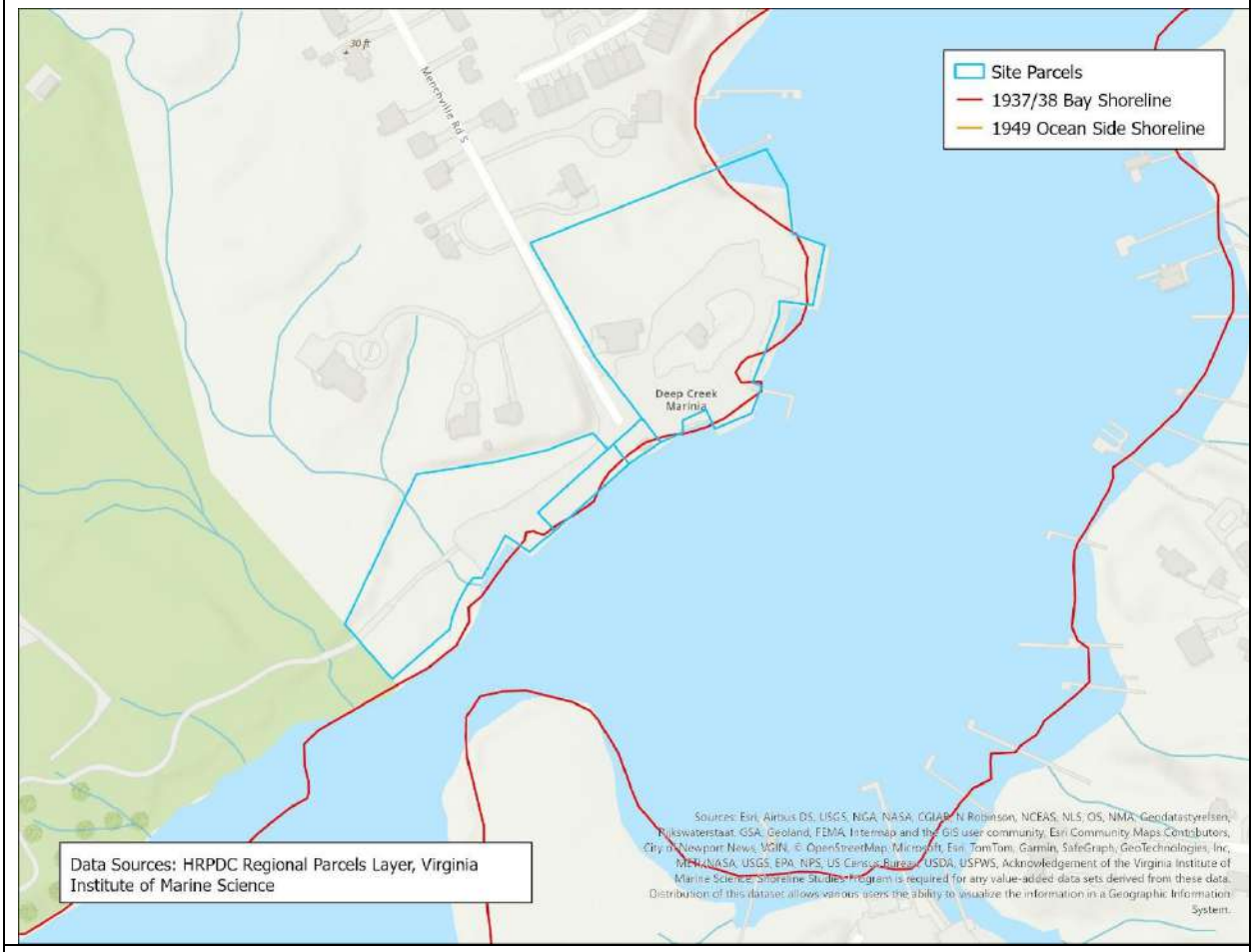
Archaeological and Cultural Resources (obtained through Virginia Cultural Resources Information System (V-CRIS))

Unknown
Road Network Evaluations
Distance to Nearest Collector / Arterial Road*
Site is accessible from Menchville Rd S
Add Any Planned or Built Multi-Modal Network
N/A
Waterside
Prevailing wind direction
Summer - southwest, Winter - northeast
In-Water Features
Water Depths (if known)*
The Deep Creek Channel is dredged to a depth of 8'.
Tidal Range*
Approximately 2' to 3'
Distance to Channel and Distance to Channel Markers*



Fetch*
Low
Submerged Aquatic Vegetation (SAV) Mapping
No
Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)
Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.
Type and Functionality*
The marina consists of wharfs and piers with a ~40' wide boat ramp.
Materials*
Wood, concrete
Approximate Width and Length*
Wharfs line the shore. The pier appears to be approxmiately 6' to 8' wide.
Approximate Elevation*

3' to 4' NAVD88
Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*
The marina is currently undergoing significant repairs.
Piles (condition, diameter, etc.)*
Unknown
Pile Cap*
Unknown
Stringers*
Unknown
Deck Boards*
Unknown
Railings*
Unknown
Hardware (bolts fastening stringers, nails/screws holding deck boards down, etc.)*
Unknown
Accessories (Cleats, Ladders, Ramps, Etc.)*
Unknown
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
Shoreline appears to be mostly bulkhead.
1937 Historic Shoreline Location (provided by VIMS) *



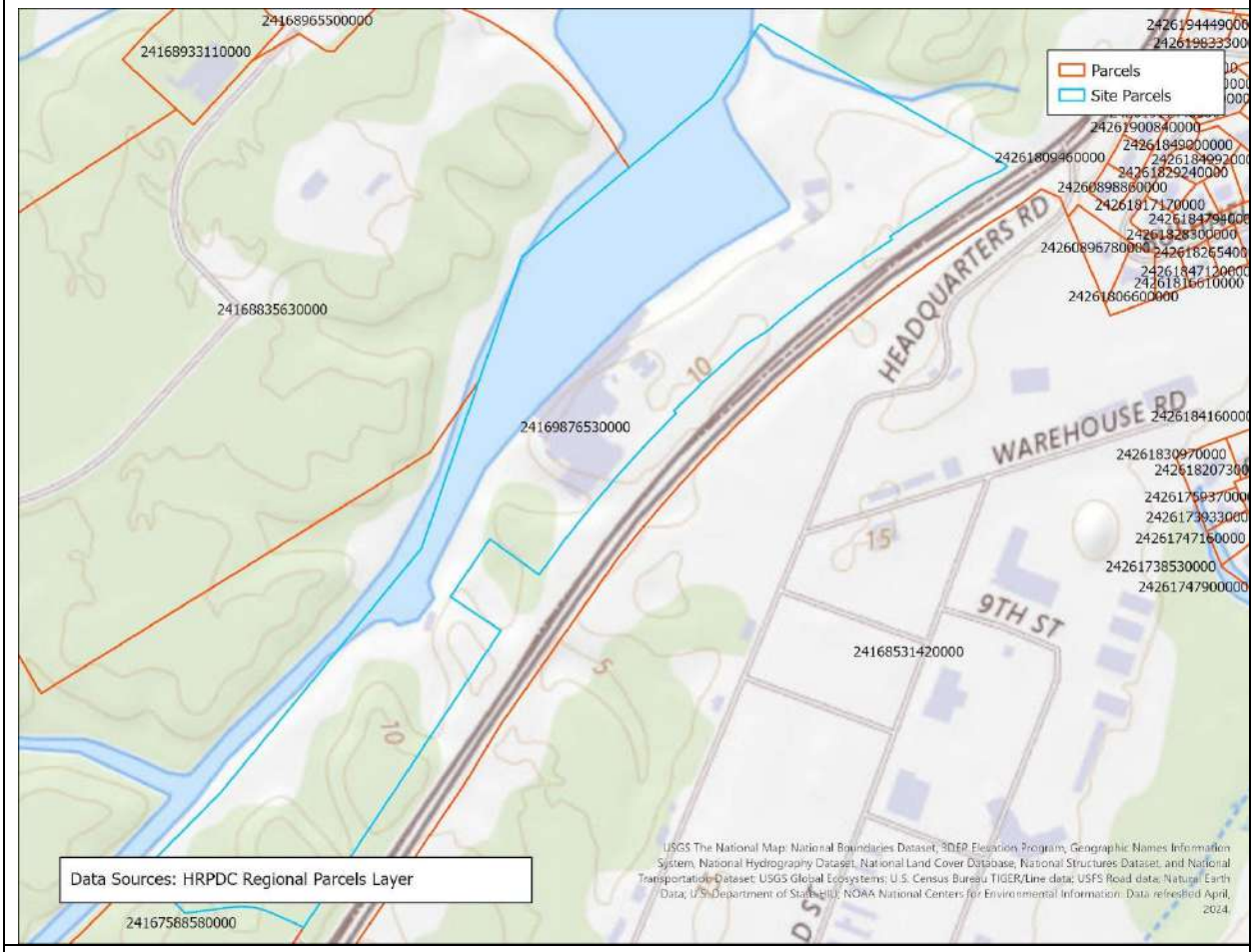
If No Stabilization Condition*
Shoreline is stabilized.
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
N/A
Existing Stabilization Condition*
Stable
Revetment/Bulkhead/Living Shoreline/Other*
Bulkhead
Marsh Condition Waterward of Shoreline Stabilization*
N/A
Materials*
N/A
Other Noticed Issues From the Shoreline Waterward
N/A

Working Waterfront Assessment	
The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.	
Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Owl Creek Boat Ramp	
Project Owner (Select One)*	
	PDC
X	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
Michael L. Parkman (Mparkman@vbgov.com)	
Project Partners*	
N/A	
Project Phase (Select One)*	
X	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
N/A	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No

Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP.**	
The Owl Creek Boat Ramp is located in Rudee Inlet in Virginia Beach with access to the Atlantic Ocean. The facility serves both commercial and recreational users. It includes four concrete boat launches, unloading areas, and parking.	
Scale of Benefits (Select One)*	
	Individual Lot: The project is expected to only benefit an individual lot.
X	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*****	
701 General Booth Blvd, Virginia Beach, VA 23451	
Coastal Hazard Addressed (Select One or More)*	
X	Tidal Flooding – flooding caused by daily or extreme high tides
	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
X	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other
Climate Standards (Select One or More)*	
	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
	The project considers increased rainfall
X	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed

Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *****	
N/A	
Total Implementation Cost *	
N/A	
Project Identifier *	
N/A	
Owner Classification *	
	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
X	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization
	Trust
	Other - business, private landowner, etc.
Estimated Start Date *	
N/A	
Estimated End Date *	
N/A	
Information Link *	
https://parks.virginiabeach.gov/outdoors/beach-boat-facilities/owl-creek-boat-ramp	
Design Life *	
N/A	
Planning, Engineering, and Permitting Cost *	
N/A	
Construction Implementation Cost *	
N/A	
Average Annual Operations & Maintenance Cost *	
N/A	
Permitting Status *	
N/A	
Funding - Cost-Share Requirements *	
N/A	
Funding - Application Costs *	
N/A	
Additional Information -** Include dialogues w/ site manager & users here **	

N/A
Site Review
The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.
Landside Property Information
Property Lines (Property Line Identification Image)*



Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*

24169876530000 (5.18 acres)

Owner*

City of Virginia Beach

Adjacent Property Owners, Parcel Size, and Use/zoning

Parcel 24260942070000 (1.14 acres, Undeveloped)

Approaching Land Use Character/Characteristics

Access to the facility is along General Booth Blvd, a major thoroughfare. The boat ramp is adjacent to the Virginia Aquarium and Marine Science Center, which is located on the same parcel.

Known Easements*

A city easement runs through the property.

Land Features Inventory

Cover Type and General Condition (paved, gravel, dirt, forested, lawn, etc.) shown on aerial image*

Parking (# of spaces, restrictions)

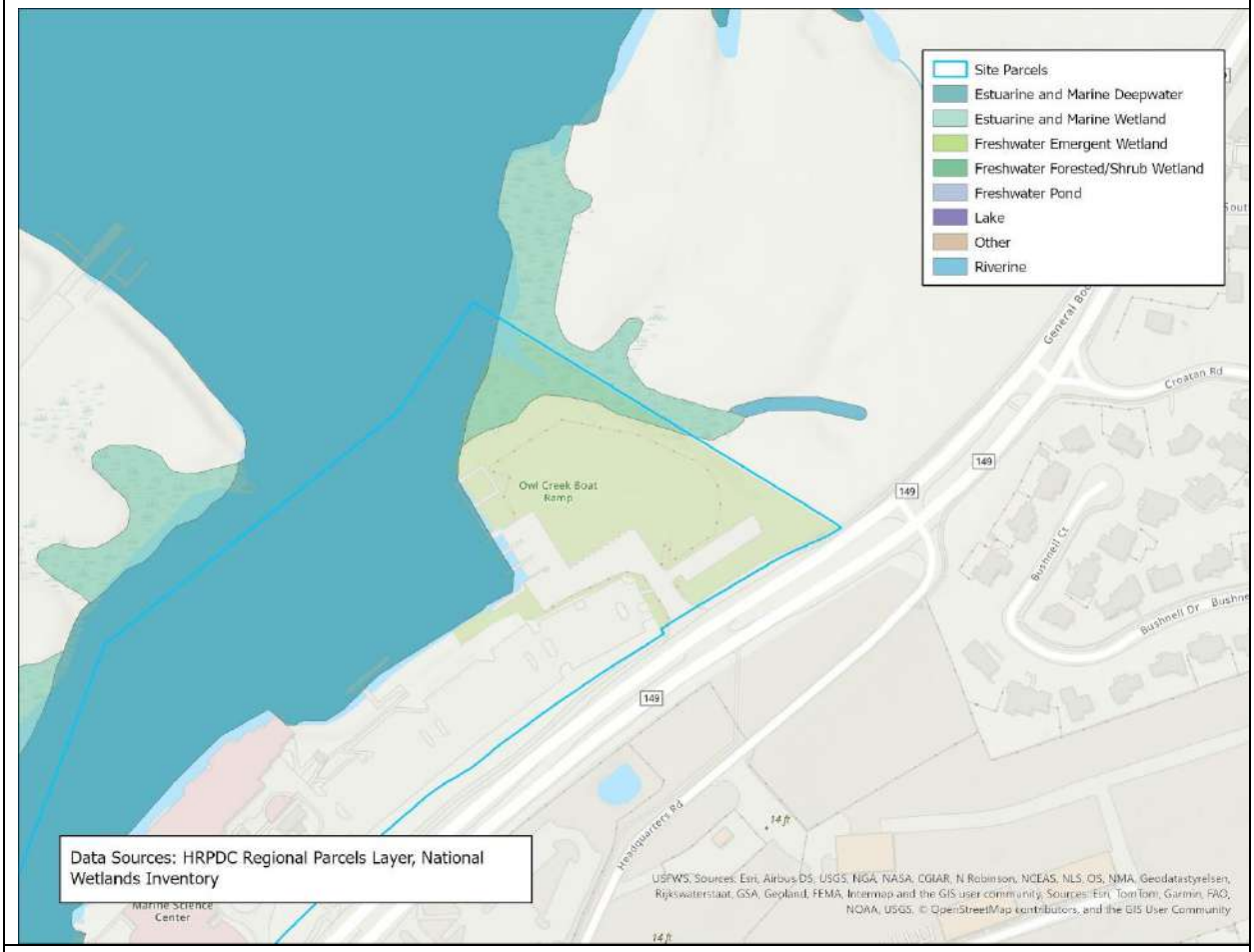
Approximately 65 spaces for vehicles with trailers plus approximately 20 spaces for passenger vehicles.

Staging/Offloading Areas for Commercial/Industrial Use

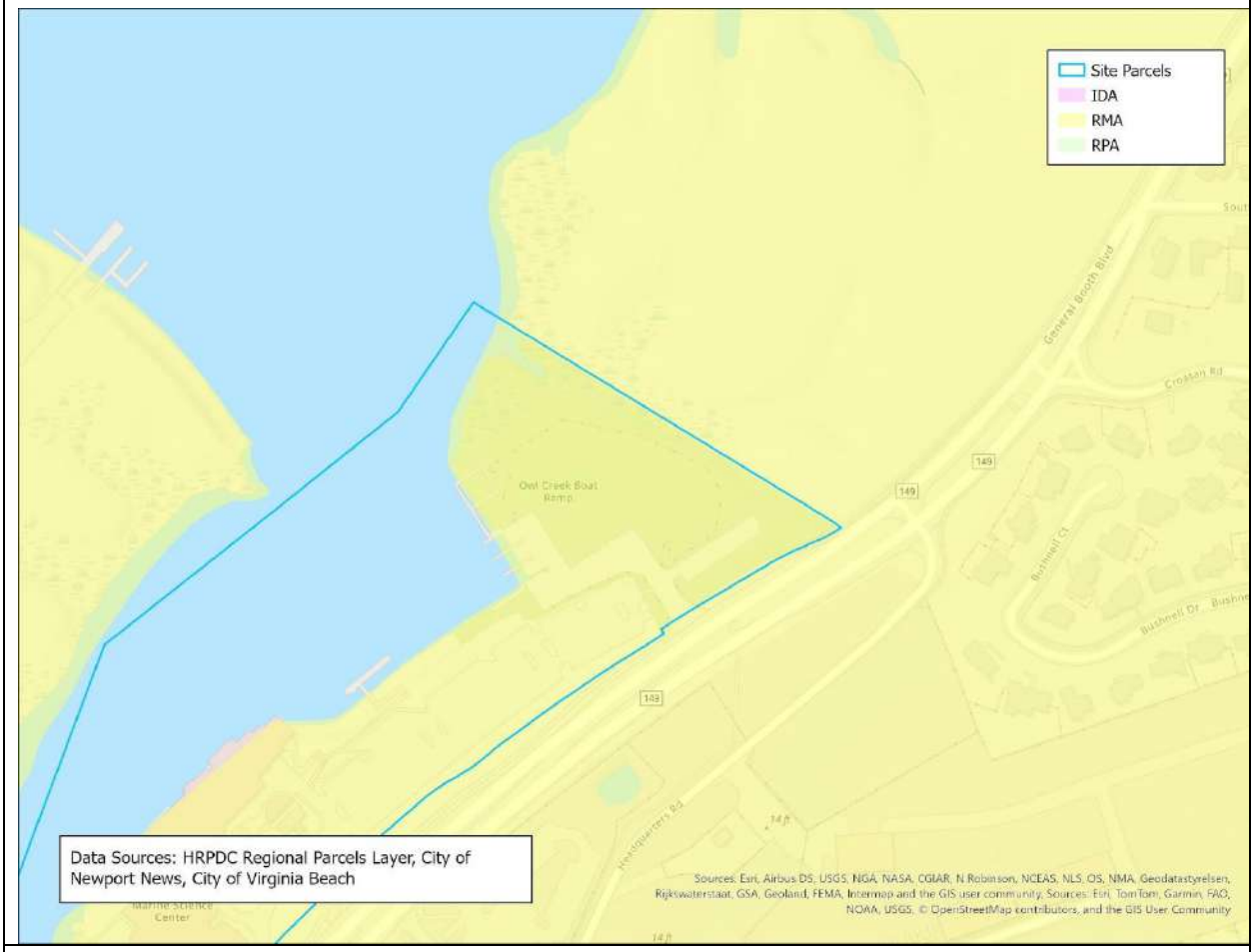
Yes

Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)

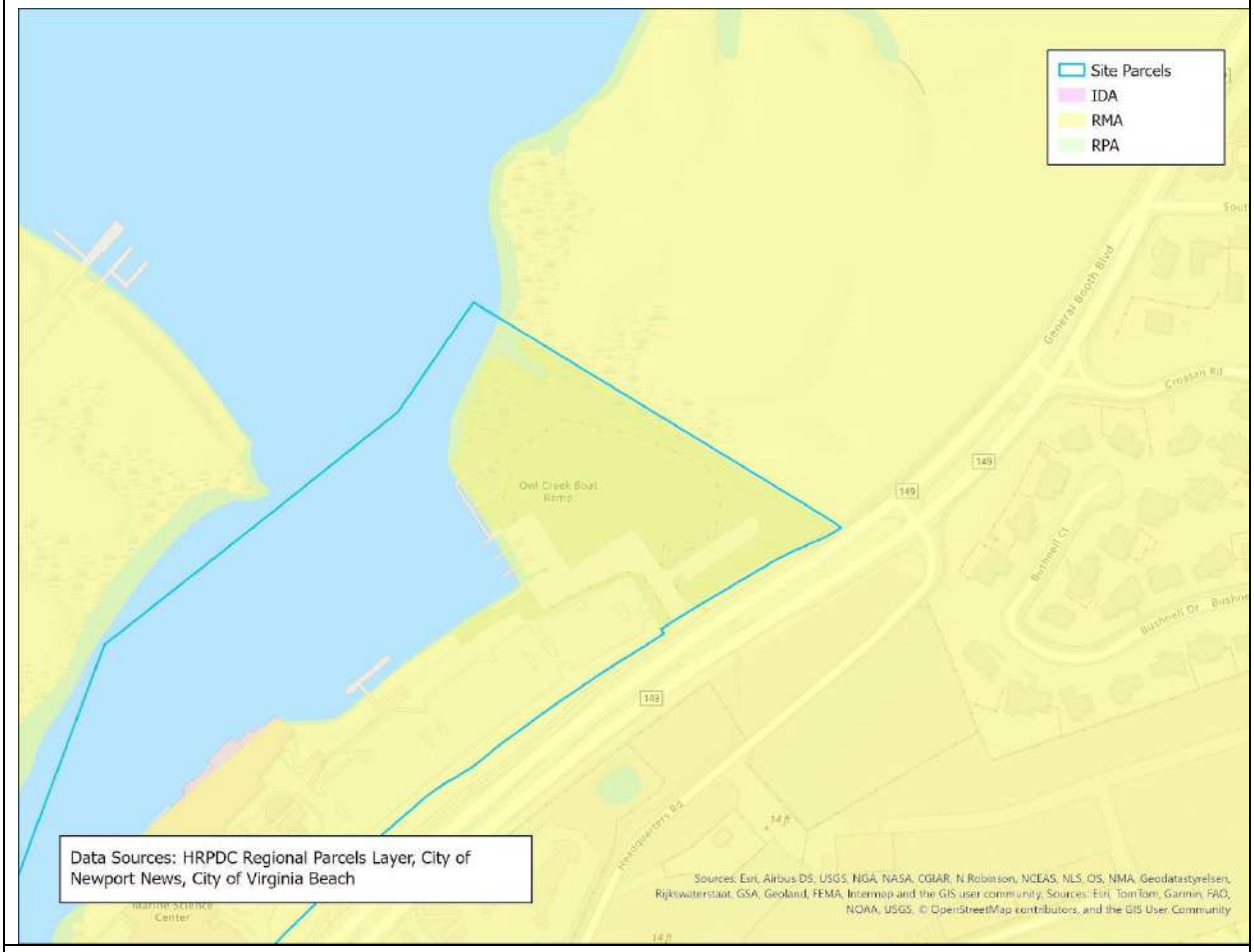
Critical Dimensions (road width, etc.)*
Access to the facility is off of General Booth Blvd, which is a four-lane divided road with 10' to 12' lanes.
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Pump out
Wireless Internet / Cell Service Availability
Cell
Signage (wayfinding or regulatory)
Yes
Drainage (ditches, upland erosion)*
Urban stormwater management
Evidence of Activity (recreational use, commercial use, trash dumping)
Significant recreational use with at least some commercial use evident
Other (may include trash cans, portable toilets, furnishings, buildings or temporary structures present, etc.)
There do not appear to be any permanent structures on site. Portable toilets are on site.
Site Environmental Information
Wetlands (from National Wetlands Inventory (NWI))



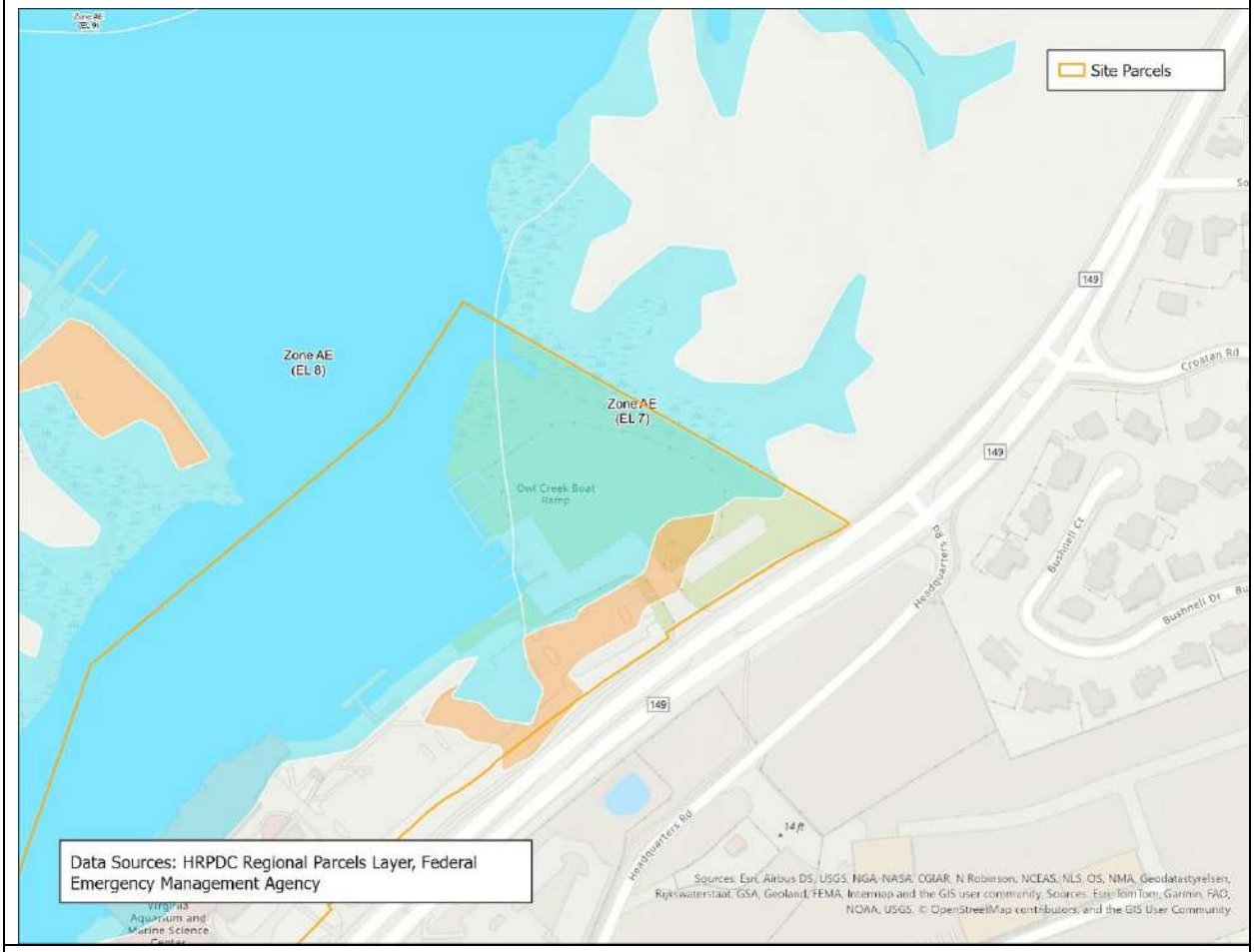
RPA (100' Buffer from Wetlands)



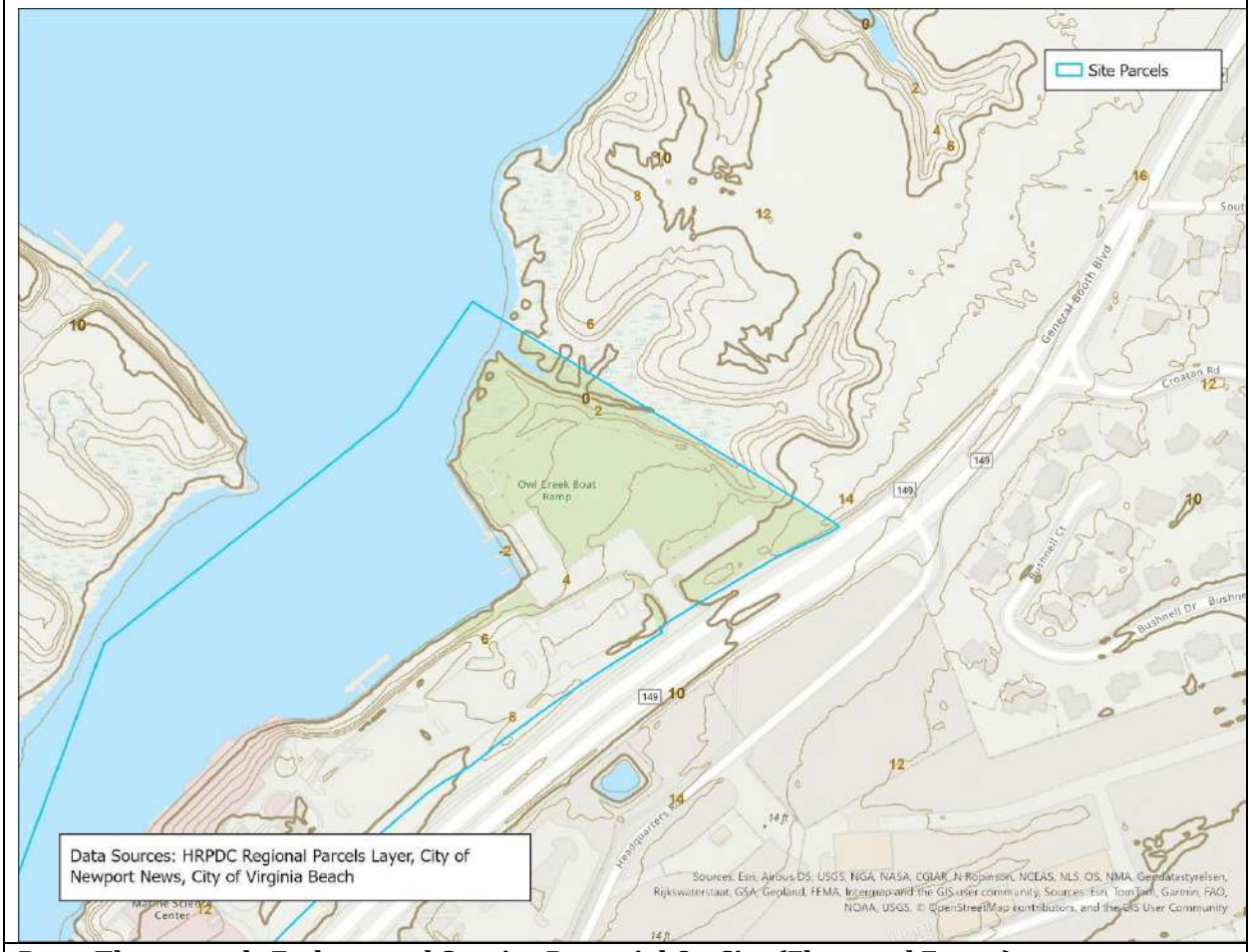
RMA (500' Buffer from Wetlands)



Floodplain (100 year and 500 year FEMA)*


Site Parcels
Zone AE
(EL 8)
Zone AE
(EL 7)
Owl Creek Boat Ramp
149
Croaten Rd
Headquarters Rd
Bushnell Ct
Bushnell Dr
14 ft
Data Sources: HRPDC Regional Parcels Layer, Federal Emergency Management Agency
Virginia Aquarium and Marine Science
Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Topography *

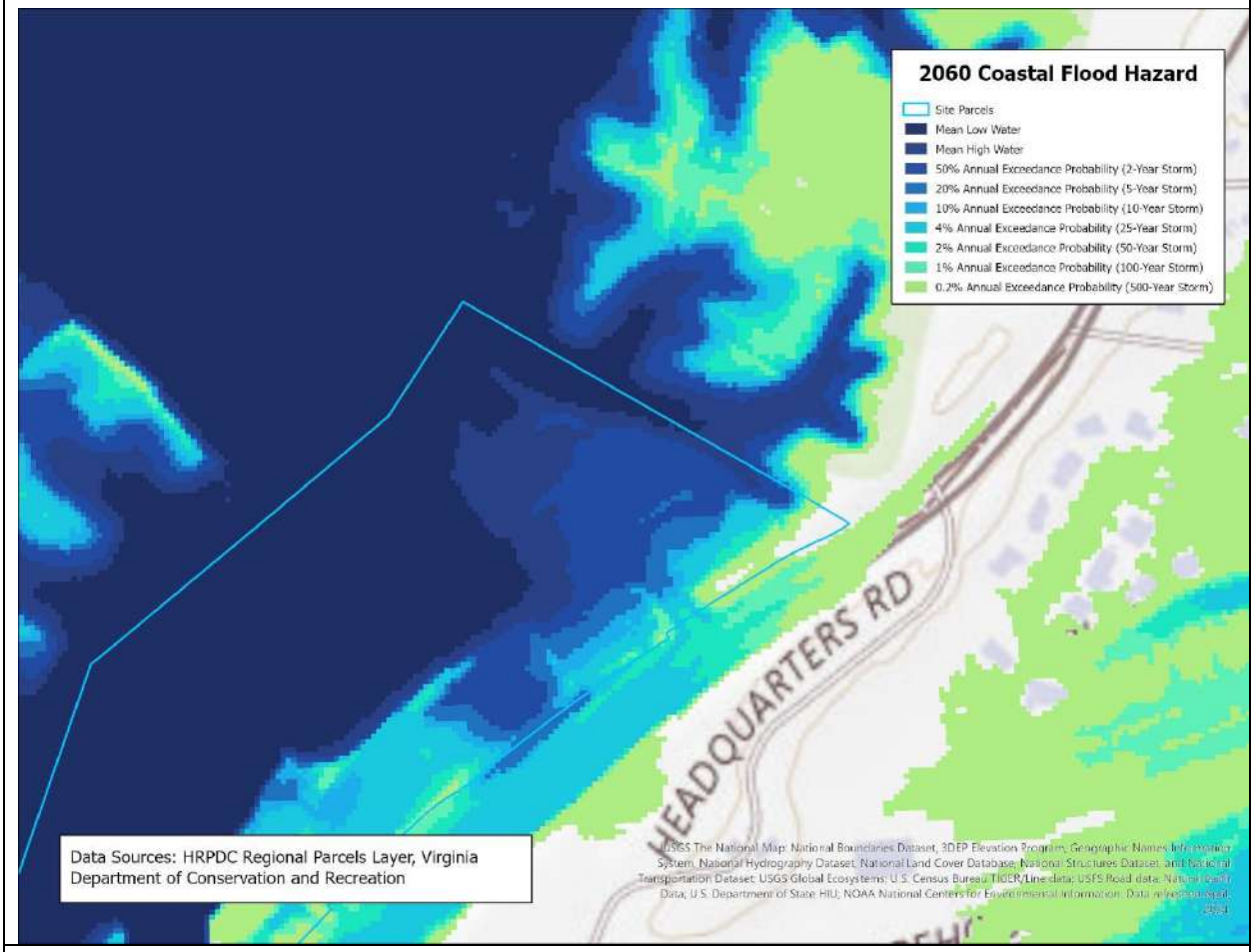


Rare, Threatened, Endangered Species Potential On Site (Flora and Fauna)

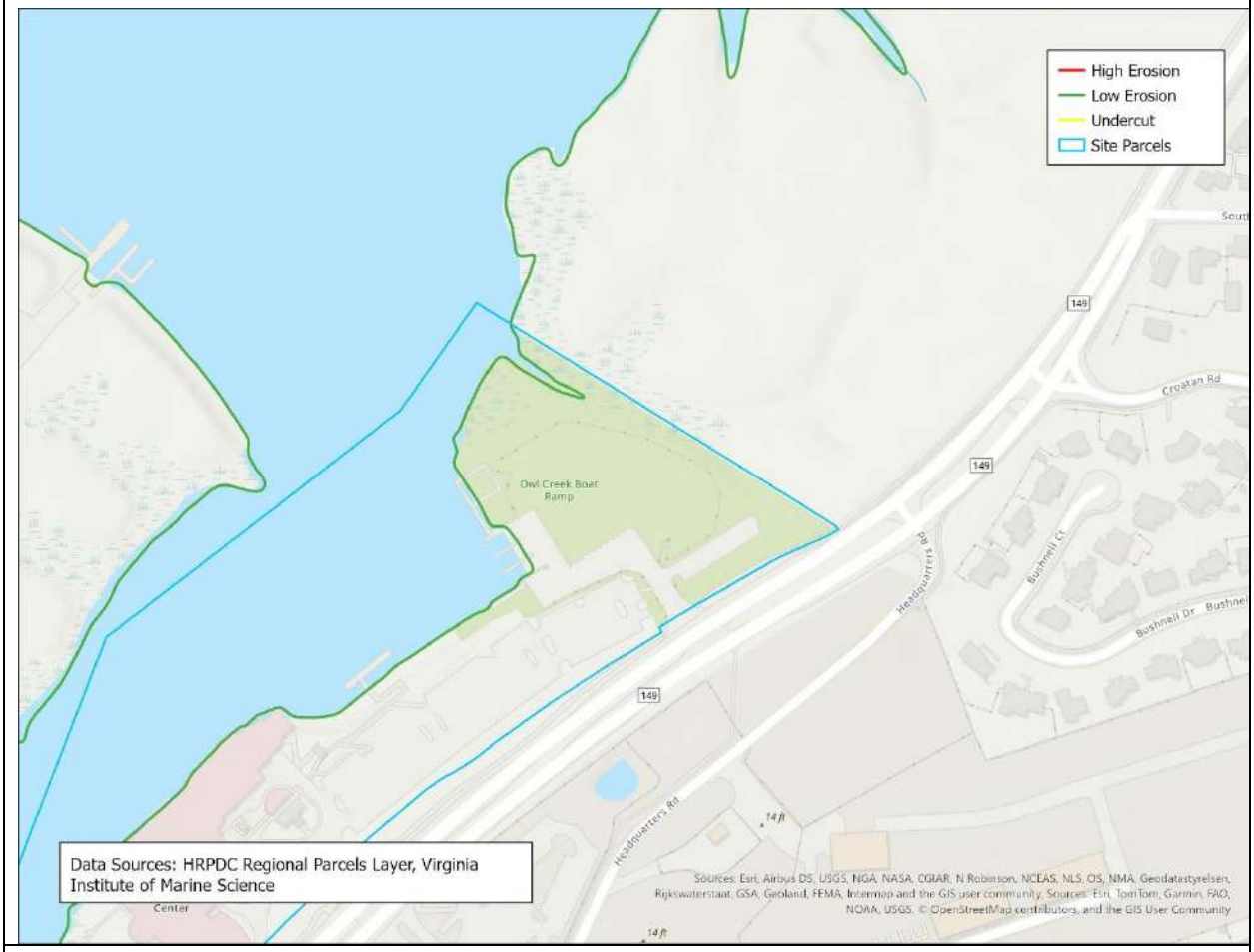
Unknown

Coastal Flood Vulnerability Mapping

Intermediate-high Sea Level Rise Mapping*



Coastal Erosion Mapping*

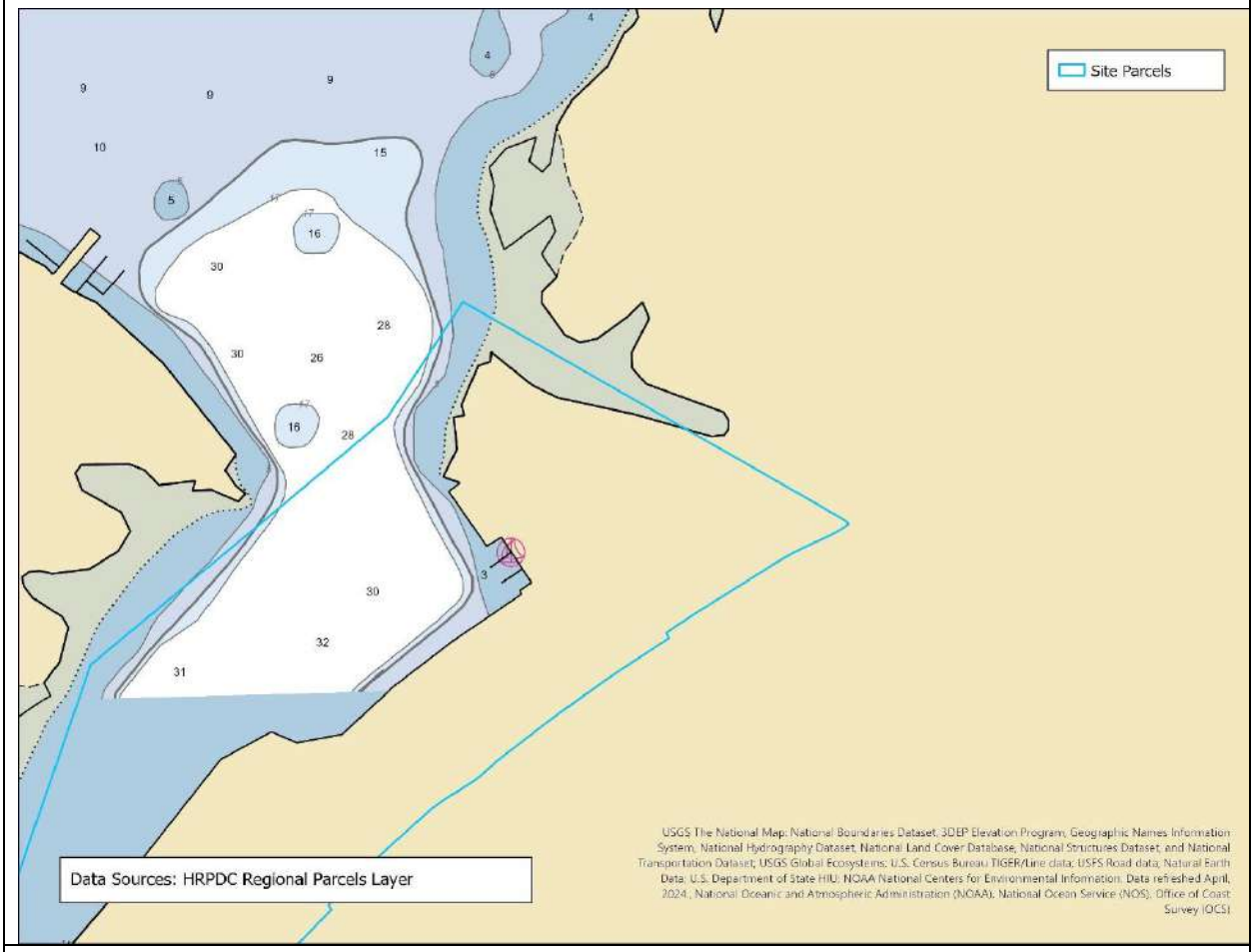


Date of Mean Low Water Inundation of Site or Access to Site*

Some impacts by 2030

Archaeological and Cultural Resources (obtained through Virginia Cultural Resources Information System (V-CRIS))

Unknown
Road Network Evaluations
Distance to Nearest Collector / Arterial Road*
Site is available from General Booth Blvd.
Add Any Planned or Built Multi-Modal Network
N/A
Waterside
Prevailing wind direction
Summer - southwest, Winter - northeast
In-Water Features
Water Depths (if known)*
Unknown
Tidal Range*
Approximately 2’ to 3’
Distance to Channel and Distance to Channel Markers*



Fetch*
Low
Submerged Aquatic Vegetation (SAV) Mapping
Unknown
Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)
Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.
Type and Functionality*
The facility consists of concrete boat ramps.
Materials*
Concrete
Approximate Width and Length*
N/A
Approximate Elevation*

2’ to 4' NAVD88
Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*
N/A
Piles (condition, diameter, etc.)*
N/A
Pile Cap*
N/A
Stringers*
N/A
Deck Boards*
N/A
Railings*
N/A
Hardware (bolts fastening stringers, nails/screws holding deck boards down, etc.)*
N/A
Accessories (Cleats, Ladders, Ramps, Etc.)*
N/A
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
The shoreline is bulkheaded.
1949 Historic Shoreline Location (provided by VIMS) *
N/A
If No Stabilization Condition*
N/A
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
N/A
Existing Stabilization Condition*
Stable
Revetment/Bulkhead/Living Shoreline/Other*
N/A
Marsh Condition Waterward of Shoreline Stabilization*
N/A
Materials*

N/A
Other Noticed Issues From the Shoreline Waterward
N/A

Working Waterfront Assessment	
The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.	
Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Newport News Seafood Industrial Park	
Project Owner (Select One)*	
	PDC
X	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
Doreen Kopacz, Port Development Administrator, kopaczdp@nnva.gov	
Project Partners*	
N/A	
Project Phase (Select One)*	
X	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
N/A	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No

Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP.*
The Newport News Seafood Industrial Park (SIP), originally established in 1979, is a city-owned and -managed facility in the southeast part of the city, located in Newport News Creek and adjacent to the Hampton Roads channel. The facility provides full-service accommodations to the seafood industry, including utilities, fueling, services, and repair. Land in the SIP is leased to private companies, which own facilities built on the land. As a significant component of the Mid-Atlantic's seafood processing industry, retrofits and improvements will likely be needed to address impacts from sea level rise, such as more frequent tidal flooding and storm surge.

Scale of Benefits (Select One)*	
	Individual Lot: The project is expected to only benefit an individual lot.
X	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*	
500 12th St, 99 and 701 Jefferson Ave, 900 Terminal Ave, Newport News, VA 23607	
Coastal Hazard Addressed (Select One or More)*	
X	Tidal Flooding – flooding caused by daily or extreme high tides
	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
X	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other
Climate Standards (Select One or More)*	
	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
	The project considers increased rainfall
X	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed

Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *****	
N/A	
Total Implementation Cost *	
Unknown	
Project Identifier *	
N/A	
Owner Classification *	
X	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
X	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization
	Trust
	Other - business, private landowner, etc.
Estimated Start Date *	
N/A	
Estimated End Date *	
N/A	
Information Link *	
https://newportnewsva.com/business-neighborhoods/seafood-industrial-park/	
Design Life *	
N/A	
Planning, Engineering, and Permitting Cost *	
N/A	
Construction Implementation Cost *	
N/A	
Average Annual Operations & Maintenance Cost *	
N/A	
Permitting Status *	
N/A	
Funding - Cost-Share Requirements *	
N/A	
Funding - Application Costs *	
N/A	
Additional Information -** Include dialogues w/ site manager & users here **	

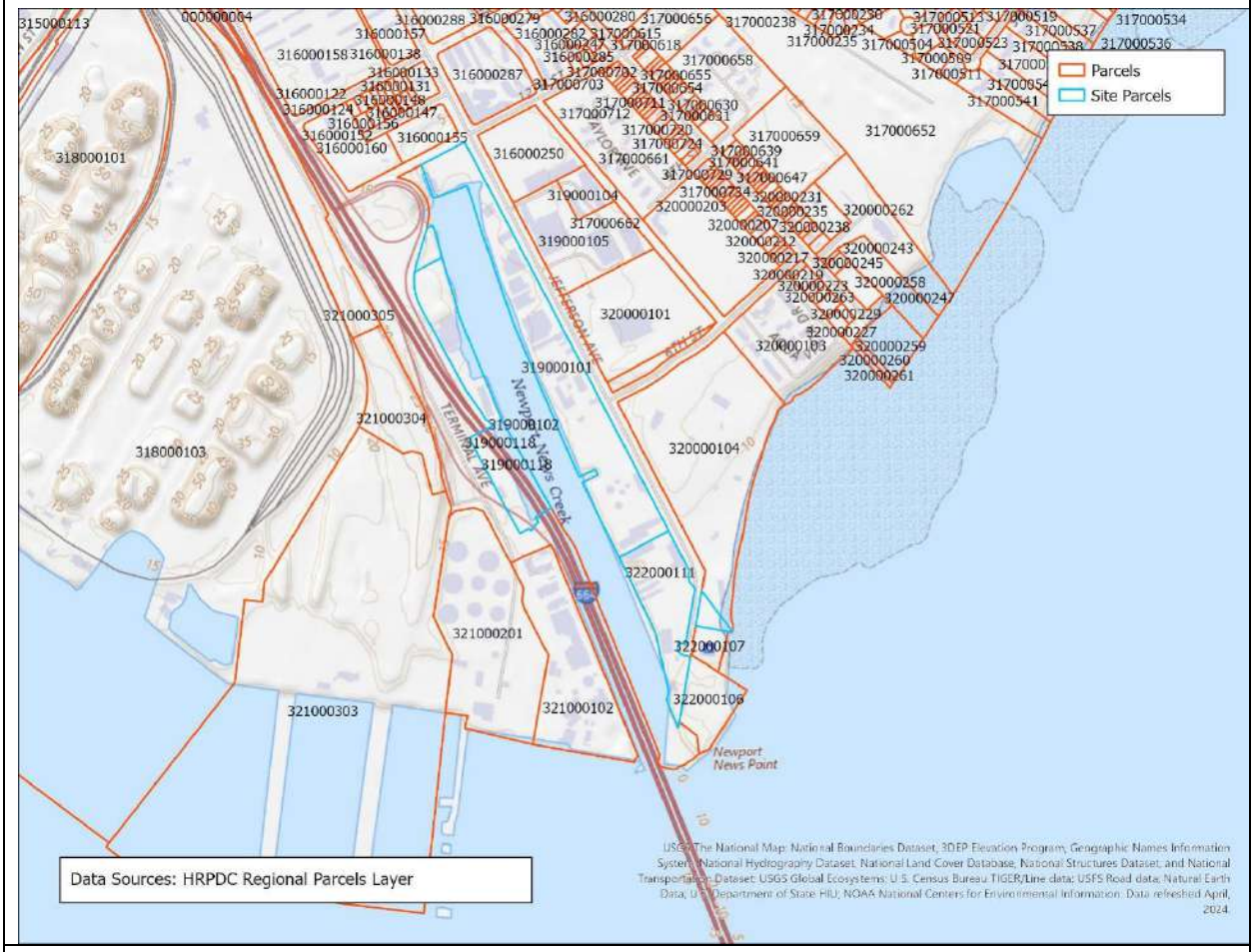
N/A

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*



Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*

319000101 (14.65 acres), 319000102 (18.44 acres), 322000111 (5.35 acres), 319000118 (4.04 acres)

Owner*

City of Newport News, Commonwealth of Virginia

Adjacent Property Owners, Parcel Size, and Use/zoning

Parcel 322000106 (Max Media of Hampton Roads, 2.63 acres, Office and Warehouse), Parcel 322000107 (Commonwealth of Virginia, 0.82 acres, Office and Warehouse), Parcel 320000104 (City of Newport News, 17.5 acres, Park), Parcel 320000101 (Amory Properties, 8.14 acres, Industrial), Parcel 319000105 (Asheville Mica Co., 5.99 acres, Industrial), Parcel 316000250 (Carter Phil System, 4.17 acres, Industrial), Parcel 316000159 (Newport News Economic Development Authority, 1.65 acres, vacant), Parcel 316000160 (City of Newport News, 3.24 acres, junkyard), Parcel 321000305 (River Port LLC, 7.55 acres, Port), Parcel 321000304 (Hampton Roads Sanitation District, 4.73 acres, Wastewater Treatment), Parcel 321000201 (Semmaterials Energy Partners, 13.32 acres, Industrial), Parcel 321000102 (Hampton Roads Sanitation District, 9.35 acres, Wastewater Treatment)

Approaching Land Use Character/Characteristics

The immediately adjacent parcels are industrial. Entrance to the facility via Jefferson Avenue passes through single-family detached residential neighborhoods.

Known Easements*

None

Land Features Inventory

Cover Type and General Condition (paved, gravel, dirt, forested, lawn, etc.) shown on aerial image*

Parking (# of spaces, restrictions)

> 40 spaces, appears to be for business employees. Approximately 30 spaces available on Jefferson Avenue.

Staging/Offloading Areas for Commercial/Industrial Use

Yes

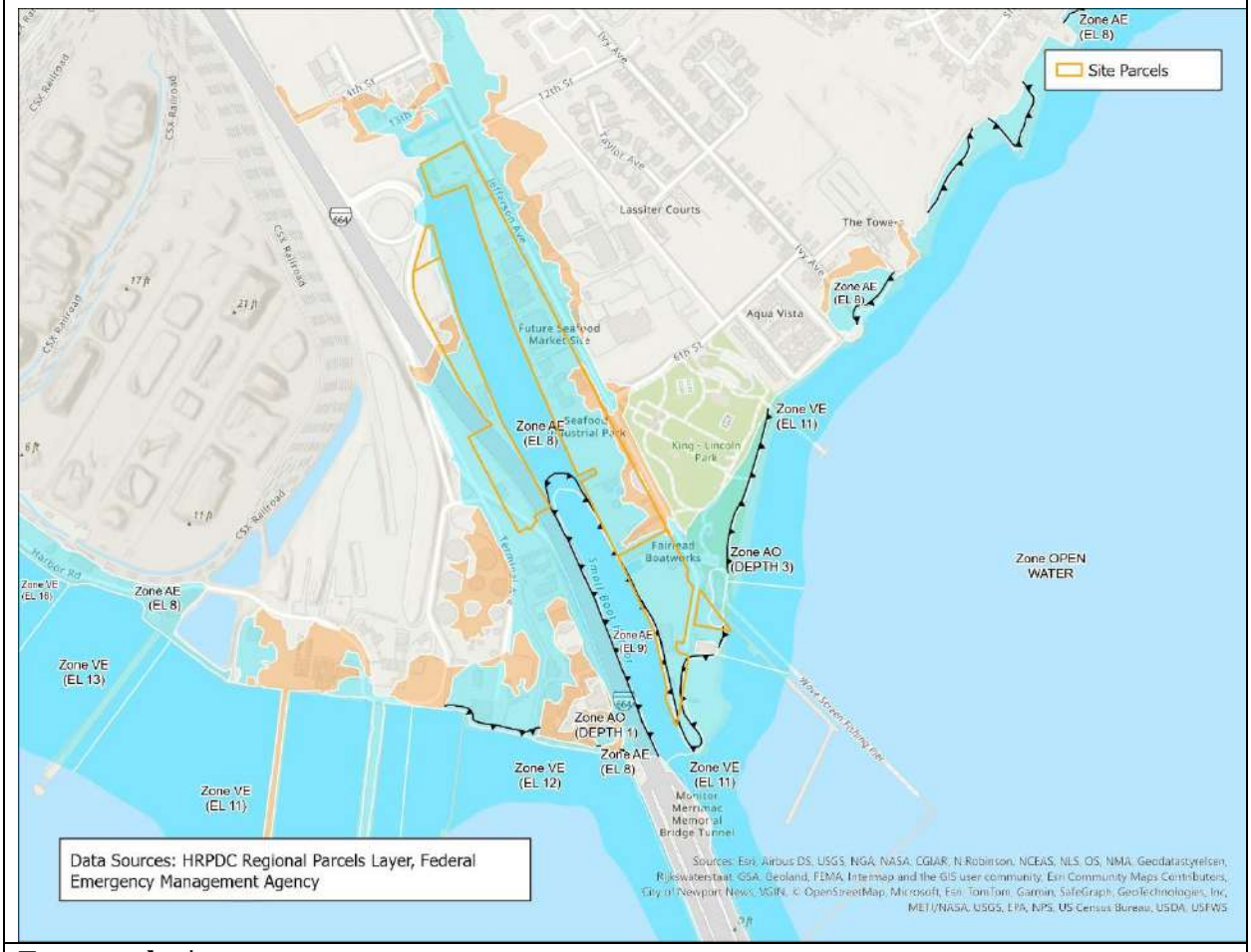
Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)

Critical Dimensions (road width, etc.)*
Access to the facility is off of Jefferson Avenue, which appears to have a 10' to 12' drive lane. Single-lane in both directions with onstreet parking on both sides.
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Yes
Wireless Internet / Cell Service Availability
Cell
Signage (wayfinding or regulatory)
Unknown
Drainage (ditches, upland erosion)*
No onsite stormwater management
Evidence of Activity (recreational use, commercial use, trash dumping)
Significant commercial use
Other (may include trash cans, portable toilets, furnishings, buildings or temporary structures present, etc.)
Multiple permanent structures on site
Site Environmental Information
Wetlands (from National Wetlands Inventory (NWI))

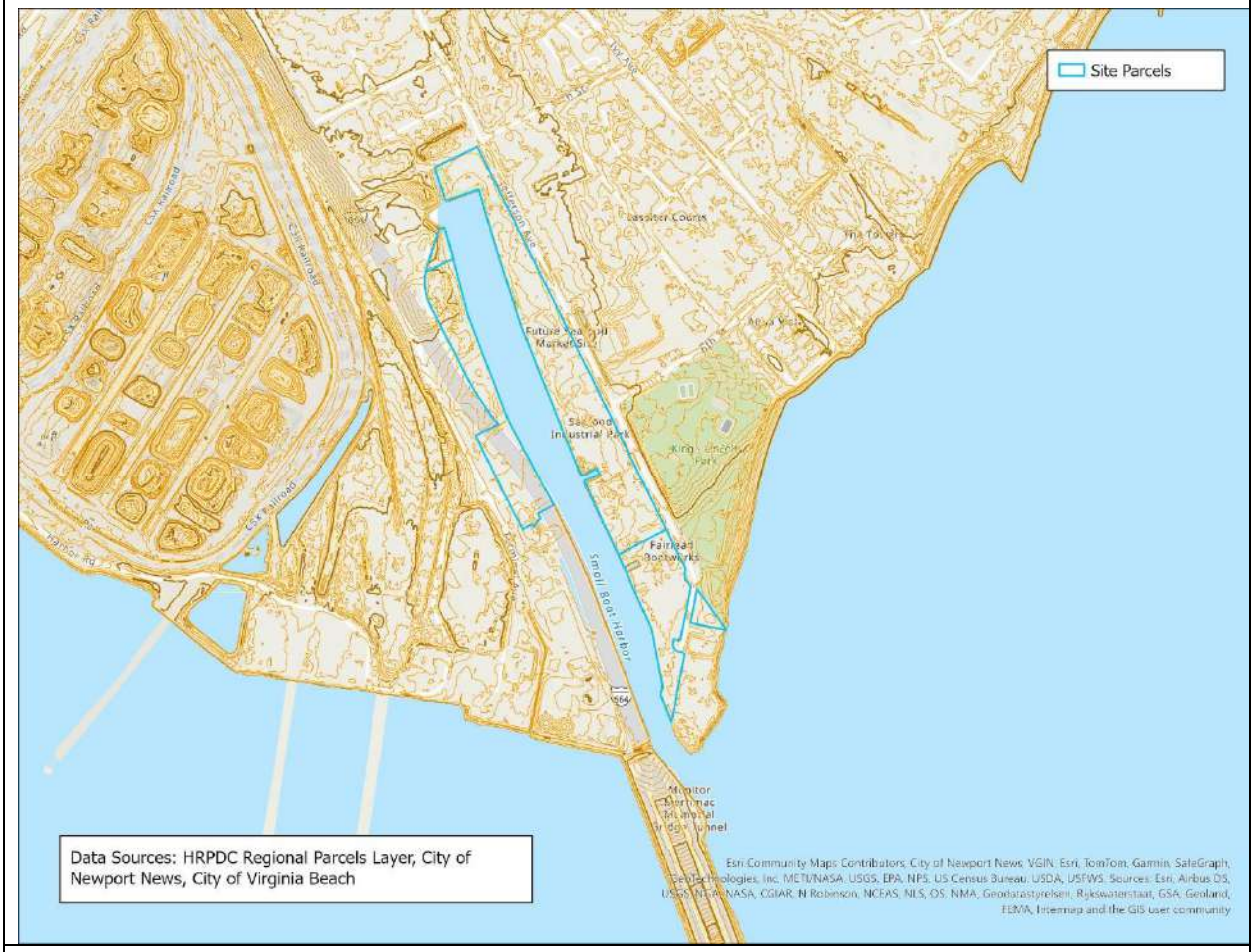
RPA (100' Buffer from Wetlands)

RMA (500' Buffer from Wetlands)

Floodplain (100 year and 500 year FEMA)*


Site Parcels
Zone AE (EL 8)
Zone VE (EL 11)
Zone AO (DEPTH 3)
Zone OPEN WATER
Zone AE (EL 8)
Zone AE (EL 9)
Zone AO (DEPTH 1)
Zone VE (EL 12)
Zone VE (EL 11)
Zone VE (EL 13)
Zone VE (EL 11)
Zone VE (EL 16)
Zone AE (EL 8)
Lassiter Courts
Aqua Vista
Future Seafood Market Site
Seafood Industrial Park
King - Lincoln Park
Fairhead Boatworks
Monitor Merrimac Memorial Bridge Tunnel
Data Sources: HRPDC Regional Parcels Layer, Federal Emergency Management Agency

Topography *

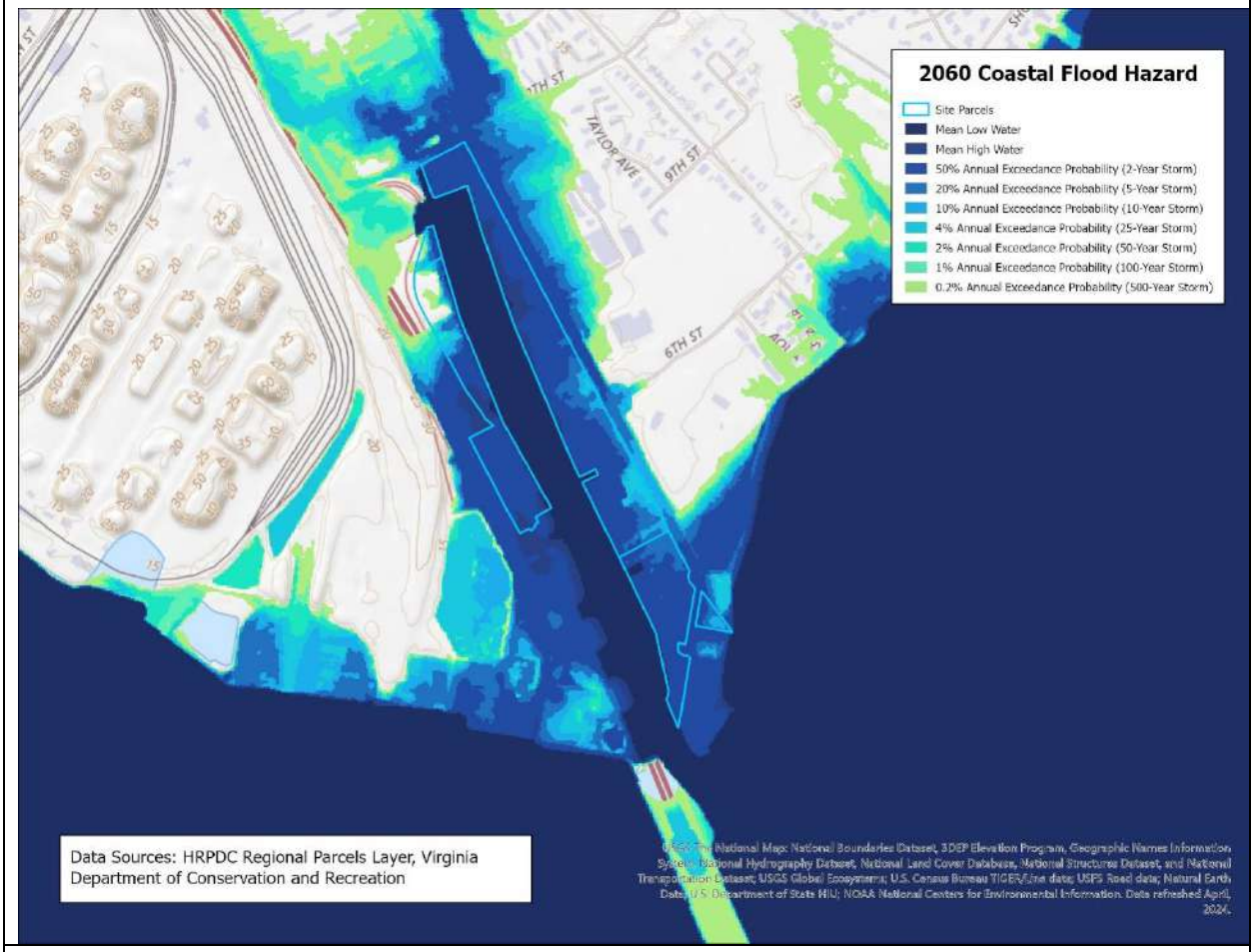


Rare, Threatened, Endangered Species Potential On Site (Flora and Fauna)

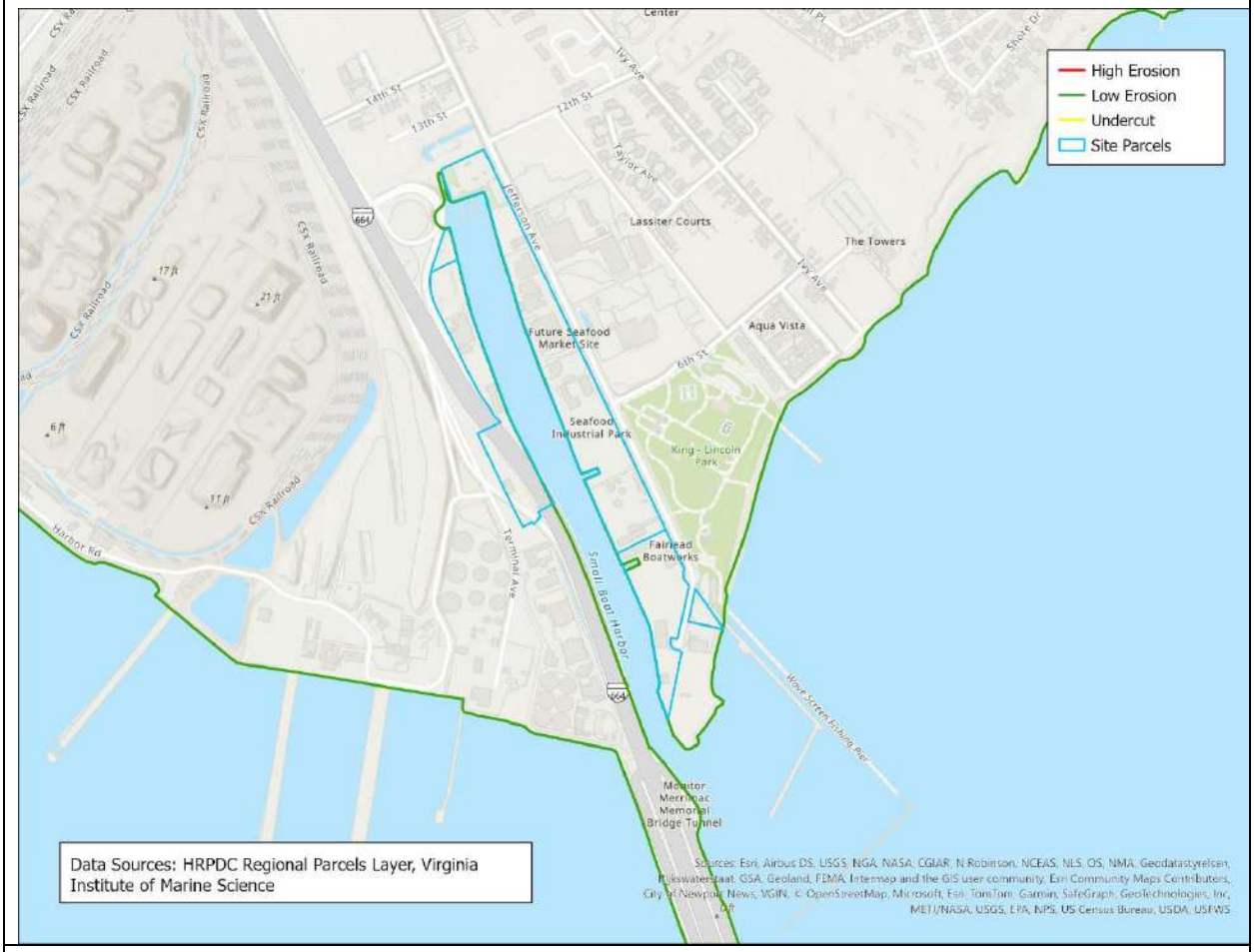
Unknown

Coastal Flood Vulnerability Mapping

Intermediate-high Sea Level Rise Mapping*



Coastal Erosion Mapping*

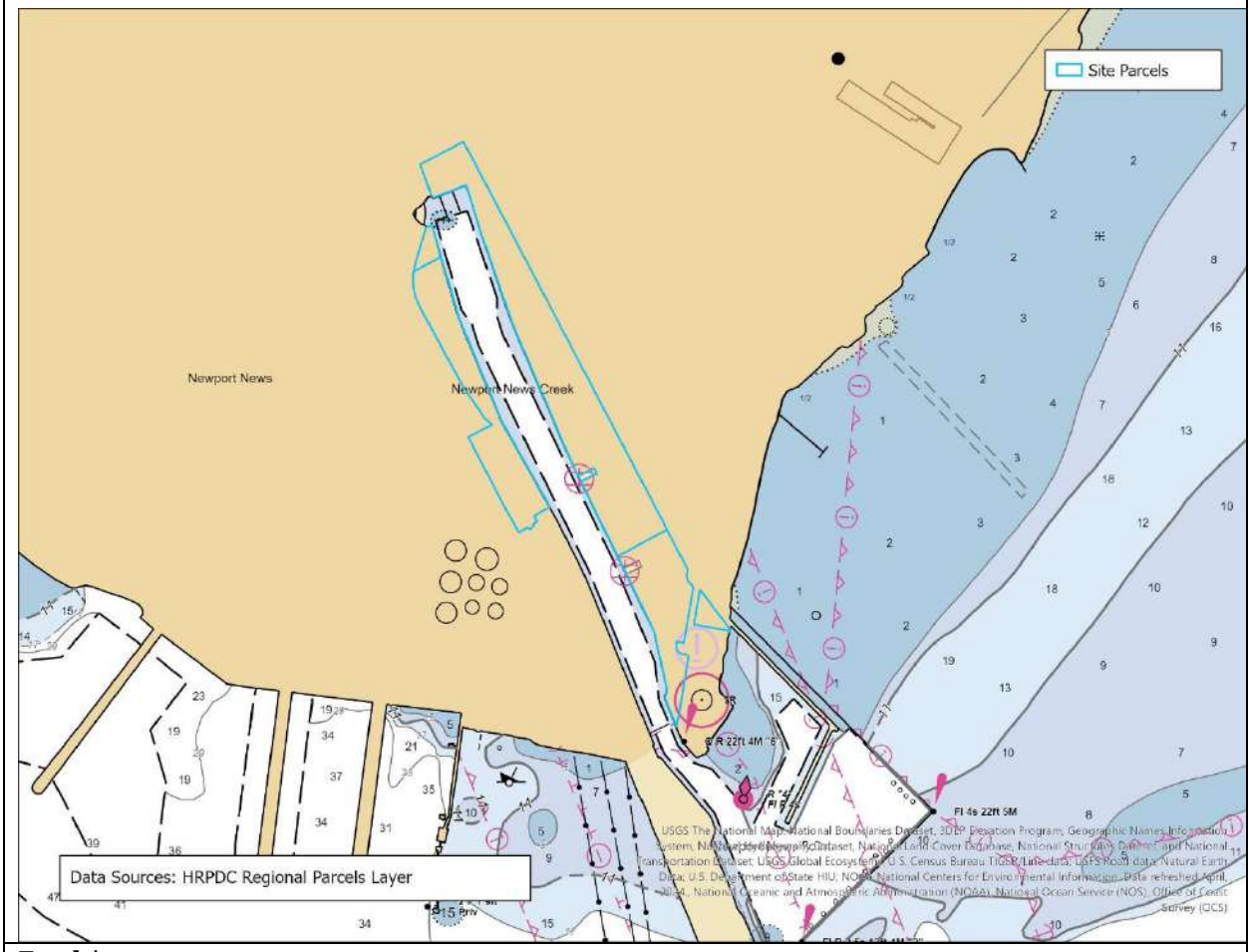


Date of Mean Low Water Inundation of Site or Access to Site*

2065

Archaeological and Cultural Resources (obtained through Virginia Cultural Resources Information System (V-CRIS))

Unknown
Road Network Evaluations
Distance to Nearest Collector / Arterial Road*
Site is available from Jefferson Avenue
Add Any Planned or Built Multi-Modal Network
N/A
Waterside
Prevailing wind direction
Summer - southwest, Winter - northeast
In-Water Features
Water Depths (if known)*
The SIP channel is 18' deep.
Tidal Range*
Approximately 2' to 3'
Distance to Channel and Distance to Channel Markers*



Fetch*

Low

Submerged Aquatic Vegetation (SAV) Mapping

No

Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)

Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.

Type and Functionality*

The facility consists of wharfs.

Materials*

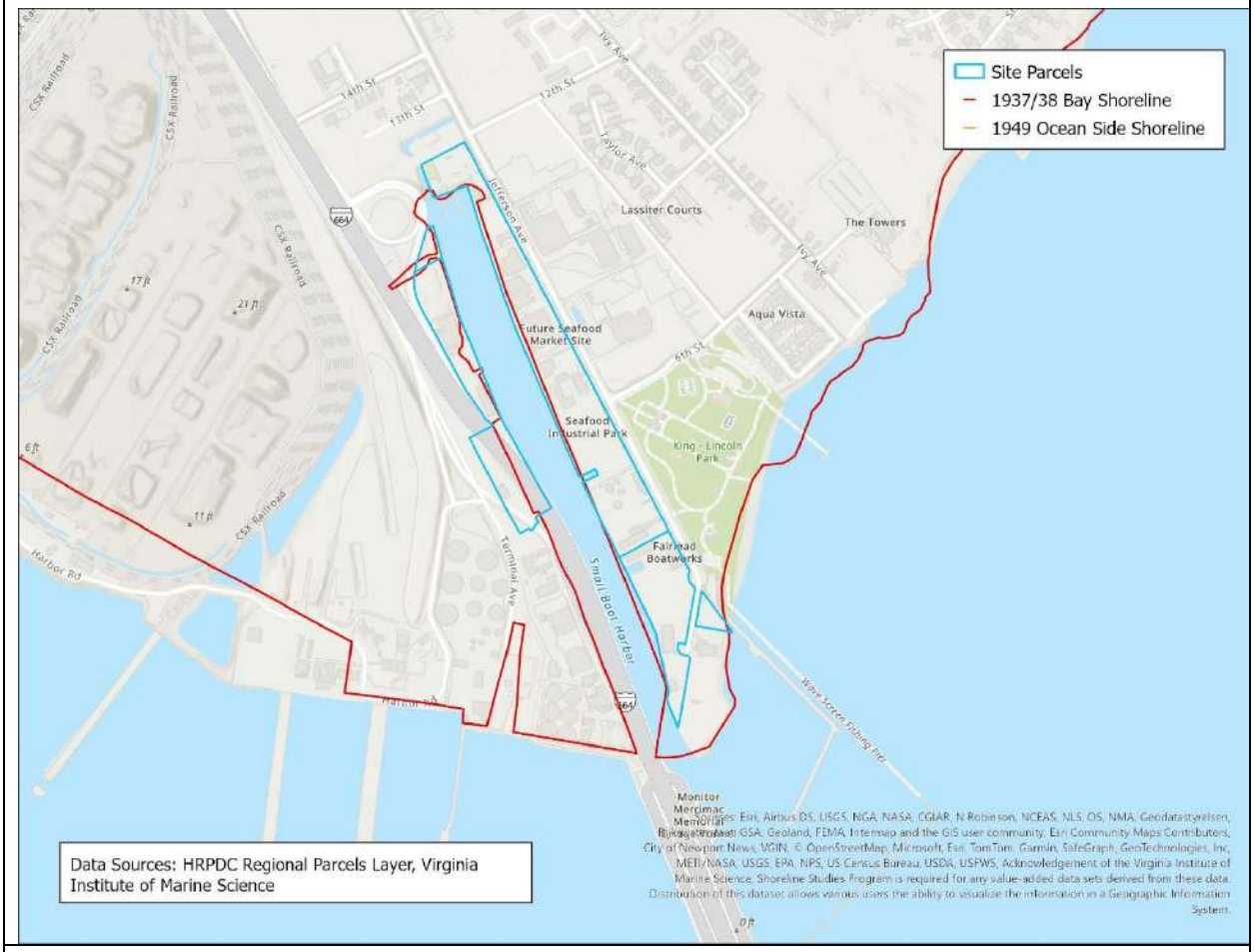
Wood, concrete

Approximate Width and Length*

Wharfs line the shore.

Approximate Elevation*

4' NAVD88
Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*
Unknown
Piles (condition, diameter, etc.)*
Unknown
Pile Cap*
Unknown
Stringers*
Unknown
Deck Boards*
Unknown
Railings*
Unknown
Hardware (bolts fastening stringers, nails/screws holding deck boards down, etc.)*
Unknown
Accessories (Cleats, Ladders, Ramps, Etc.)*
Unknown
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
Shoreline appears to be mostly bulkhead.
1937 Historic Shoreline Location (provided by VIMS) *



If No Stabilization Condition*
Shoreline is stabilized.
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
N/A
Existing Stabilization Condition*
Stable
Revetment/Bulkhead/Living Shoreline/Other*
Bulkhead
Marsh Condition Waterward of Shoreline Stabilization*
N/A
Materials*
N/A
Other Noticed Issues From the Shoreline Waterward
N/A

Photo Station Map: May 21, 2024* INFORMAL Shoreline Assessment of Johnson & Son's Seafood Facility

Created by Jeff Flood, Virginia Coastal Zone Management Program (Virginia CZM) on July 15, 2024

**Photos re-taken on May 31, 2024 after originals from May 21, 2024 lost. Both visits at low tide.*

Photo Station 1. Looking south towards eroding bank.

Photo Station 2. Looking east along shoreline.

Photo Station 3. Looking northeast, downstream towards mouth of Chuckatuck Creek.

Photo Station 4. Looking north, downstream towards mouth of Chuckatuck Creek.

Photo Station 5. Looking south towards eroding back w/ large tree imbedded into bank.

Photo Station 6. Looking west at eroding shoreline w/ wrack line.

Photo Station 7. Looking north at eroding bank w/ tree imbedded in bank.

Photo Station 8. Looking west along eroding shoreline. Some areas of healthy marsh, but note flattened vegetation at right (possibly from strong fetch).

Photo Station 9. Looking northeast along shoreline w/ wrack line.

Photo Station 10. Looking west along shoreline. Note wrack line. Seafood facility is at top left.

Photo Station 11. Looking west towards seafood facility. Soft (sand) boat ramp at left.

Photo Station 12. Looking north. Boat ramp at left.

Photo Station 13. Looking northwest. Boat ramp in center, seafood facility at left.

Photo Station 14. Looking west at bulkhead along seafood facility. Boat ramp in foreground.

Photo Station 15. Looking southwest along marsh. Approximately 6-FT high bank in foreground. High & low marsh present.

Photo Station 16. Looking south along marsh.

Photo Station 17. Looking southeast along marsh.

Photo Station 18. Looking west along dock. Approximately 4 FT above water at low tide.

Photo Station 19. Looking east back towards Photo Stations 1-14. Seafood facility is at far right.

Photo Station 20. Looking east along bulkhead on northern face of property. Seafood facility is at right.

May 21, 2024 Shoreline Assessment Site Visit: Johnson & Son's Seafood

Photo Station Map by Jeff Flood (Virginia CZM) 7/15/24

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Westmoreland State Park - Living Shoreline	
Project Owner (Select One)*	
	PDC
X	Locality - Commonwealth of Virginia Department of Conservation & Recreation
	Tribe
	Private company name
Project Owner Contact Info (email)*	
Steve.Davis@dcr.virginia.gov	
Project Partners*	
Project Phase (Select One)*	
	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
X	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success. (Breakwaters & Shoreline Stabilization)
Related Initiative	
No	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
***Description** - Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP. *	
"The primary purpose of the Westmoreland State Park living shoreline project is to stabilize an existing highly eroded shoreline and reduce the occurrence of erosion in the future along the Potomac River shoreline at Westmoreland State Park in Westmoreland County, Virginia. It is anticipated that the shoreline stabilization project will accomplish this goal through construction of a headland breakwater system at the site along with installation of sand fill and installation of marsh plantings to further stabilize the project area. The headland breakwater system, sand fill, and marsh plantings will serve to reduce wave energy approaching the bank." The project used about 23,000 tons of sand and 20,000 tons of various rock.	
	Individual Lot: The project is expected to only benefit an individual lot.
X	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*	
145 Cliff Road, Montross, VA 22520	
Coastal Hazard Addressed (Select One or More)*	
	Tidal Flooding – flooding caused by daily or extreme high tides
	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
X	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other
Climate Standards (Select One or More)*	
X	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection) - "Whereas minimum living shoreline guidelines only require rock structures to be raised 1-2 feet above mean high water (MHW) for moderate energy settings, the proposed design exceeds this minimum standard even under the effect of sea level rise."
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario

	The project considers increased rainfall
	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed

Project Subtype (Select One or More) - See Appendix G for more information on subtypes
https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *

Living Shoreline - Shoreline Stabilization

Total Implementation Cost *

$7.2 million

Project Identifier *

00000-096-22984961

Owner Classification *

X	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization Organization
	Trust
	Other - business, private landowner, etc.

Estimated Start Date *

1/2020

Estimated End Date *

3/2025

Information Link *

Design Life *

50-year

Planning, Engineering, and Permitting Cost *

Construction Implementation Cost *

Average Annual Operations & Maintenance Cost *

Permitting Status *

Permits obtained

Funding - Cost-Share Requirements *

Funding - Application Costs *

***Additional Information -** Include dialogues w/ site manager & users here *

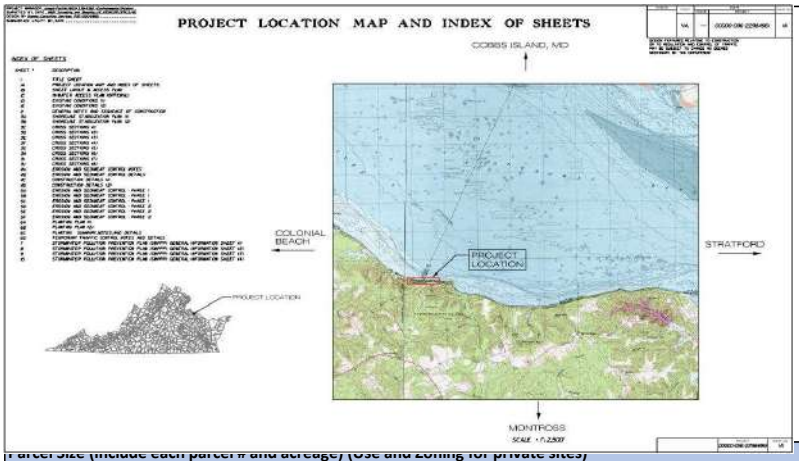
Conversation with Steve Davis, 9/13/2024

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*



Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)

1,321 acres - State Park

Owner*

Commonwealth of Virginia

Adjacent Property Owners, Parcel Size, and Use/zoning

Project site not close to other property owners

Approaching Land Use Character/Characteristics

Recreation - Forest

Known Easements*

Land Features Inventory

Cover Type and General Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*

Parking (# of spaces, restrictions)

About 30 Parking spaces at the Westmoreland State Park Visitor Center about 400 feet from project site.

Staging/Offloading Areas for Commercial/Industrial Use

Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)

Critical Dimensions (road width, etc.)*

About 24 feet (road width) at parking area

Utilities Present On Site (electric, communications, sewer, water, stormwater)*

electric, communications, stormwater permits (no underground utilities)

Wireless Internet / Cell Service Availability

Limited cell phone service

Signage (wayfinding or regulatory)

yes

Drainage (ditches, upland erosion)*

"The project area... is situated along the Horsehead Cliffs on the southern bank of the Potomac River. The shoreline experiences chronic long-term erosion as well as acute episodic erosion

Evidence of Activity (recreational use, commercial use, trash dumping)

Recreational

Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)

campsites, trash, toilets, buildings (upland)

Site Environmental Information

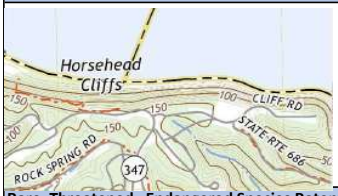
Wetlands (from National Wetlands Inventory (NWI))

RPA (100' Buffer from Wetlands)

RMA (500' Buffer from Wetlands)

Floodplain (100 year and 500 year FEMA)*

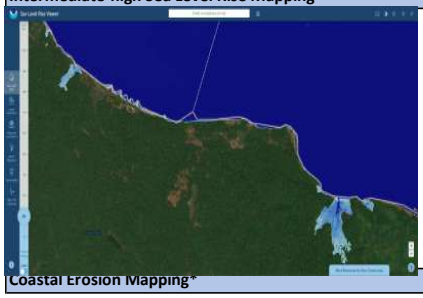
Topography *



Rare, Threatened, Endangered Species Potential On Site (Flora and Fauna

Coastal Flood Vulnerability Mapping

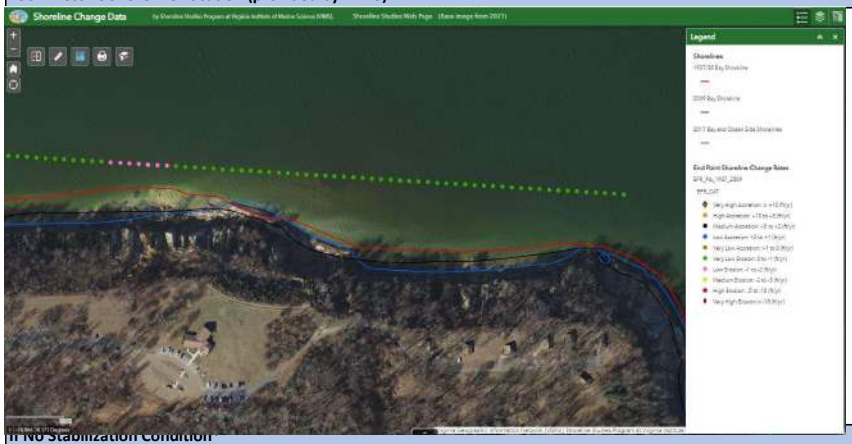
Intermediate-high Sea Level Rise Mapping*



Coastal Erosion Mapping*

Date of Mean Low Water Inundation of Site or Access to Site*
Road Network Evaluations
Distance to Nearest Collector / Arterial Road*
About 9,668 feet to Kings Hwy
Add Any Planned or Built Multi-Modal Network
Waterside
Prevailing wind direction
WSW
In-Water Features
Water Depths (if known)*
About 10 feet (Google Earth)
Tidal Range*
1.68 feet
Distance to Channel and Distance to Channel Markers*
About 15,000 feet to channel
Fetch*
112,000 feet (?)
Submerged Aquatic Vegetation (SAV) Mapping
Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)
Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.
Type and Functionality*
Breakwater to left of site
Materials*
Rip rap
Approximate Width and Length*
Approximate Elevation*
7 feet MLW
Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*
Pile Cap*
Stringers*
Deck Boards*
Railings*
Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*
Accessories (Cleats, Ladders, Ramps, Etc.)*
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
eroding shoreline

1937 Historic Shoreline Location (provided by VIMS) *



If No Stabilization Condition

Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*

"The shoreline experiences chronic long-term erosion as well as acute episodic erosion from strom events. The existing shoreline is severely eroded with bank heights of approximately 20 to 120 feet."

Existing Stabilization Condition*

parts are stabilized with breakwaters

Revetment/Bulkhead/Living Shoreline/Other*

Marsh Condition Waterward of Shoreline Stabilization*

Materials*

Other Noticed Issues From the Shoreline Waterward

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Westmoreland State Park - Horsehead Cliff Stabilization	
Project Owner (Select One)*	
	PDC
X	Locality - Commonwealth of Virginia Department of Conservation & Recreation
	Tribe
	Private company name
Project Owner Contact Info (email)*	
Steve.Davis@dcr.virginia.gov	
Project Partners*	
Project Phase (Select One)*	
	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
X	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression. (Bank & cliff stabilization due to groundwater problems - groundwater buildup on top of clay buildup - control of groundwater erosion)
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
No	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
***Description** - Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP. *	
"The purpose of the project is to rehabilitate a slope failure along the shoreline of the Potomac River at Westmoreland State Park. The limits of disturbance for the project is approximately 5.31 acres.	
	Individual Lot: The project is expected to only benefit an individual lot.
X	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*	
145 Cliff Road, Montross, VA 22520	
Coastal Hazard Addressed (Select One or More)*	
	Tidal Flooding – flooding caused by daily or extreme high tides
	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
X	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
X	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other
Climate Standards (Select One or More)*	
	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
X	The project considers increased rainfall "METEOROLOGICAL DATA IS TAKEN FROM NOAA ATLAS 14 FOR THE 1-YR, 2-YR, 10-YR, 25-YR, AND 100-YR 24-HR STORM EVENTS AS GIVEN ON THIS SHEET."
	The project does not consider future sea level rise or rainfall conditions

	Other Coastal Hazards Addressed
Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *	
Revetment, Drainage Improvement	
Total Implementation Cost *	
Project Identifier *	
Project: 22210061.000	
Owner Classification *	
X	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization Organization
	Trust
	Other - business, private landowner, etc.
Estimated Start Date *	
Plans Prepared: 8/24/2024	
Estimated End Date *	
Information Link *	
https://drive.google.com/file/d/1Jv1ogwDDd1-LJjjirF0Jn0BM2fV1AD3T/view	
Design Life *	
Planning, Engineering, and Permitting Cost *	
Construction Implementation Cost *	
Average Annual Operations & Maintenance Cost *	
Permitting Status *	
Funding - Cost-Share Requirements *	
Funding - Application Costs *	
***Additional Information -** Include dialogues w/ site manager & users here *	
Conversation with Steve Davis, 9/13/2024	

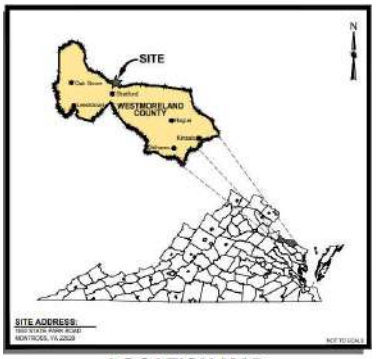
Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*

Westmoreland State Park - Horsehead Cliffs



LOCATION MAP

VICINITY MAP

Parcel Size (include each parcel # and acreage) (use and zoning for private sites)

1,321 acres - State Park

Owner*

Commonwealth of Virginia

Adjacent Property Owners, Parcel Size, and Use/zoning

Project site not close to other property owners

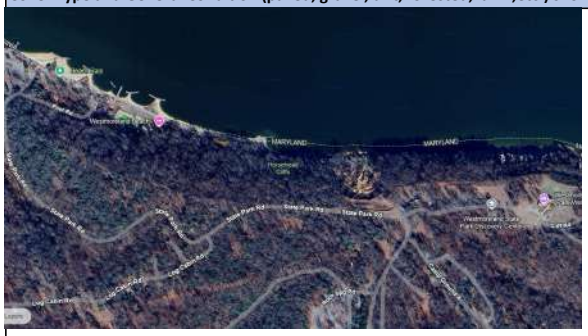
Approaching Land Use Character/Characteristics

Recreation - Forest - Living Shoreline

Known Easements*

Land Features Inventory

Cover Type and General Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*



Parking (# of spaces, restrictions)

Staging/Offloading Areas for Commercial/Industrial Use

Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)

Critical Dimensions (road width, etc.)*

Utilities Present On Site (electric, communications, sewer, water, stormwater)*

electric, communications, stormwater permits

Wireless Internet / Cell Service Availability

Signage (wayfinding or regulatory)

yes

Drainage (ditches, upland erosion)*

Installation of two French drains during project

Evidence of Activity (recreational use, commercial use, trash dumping)

Recreational

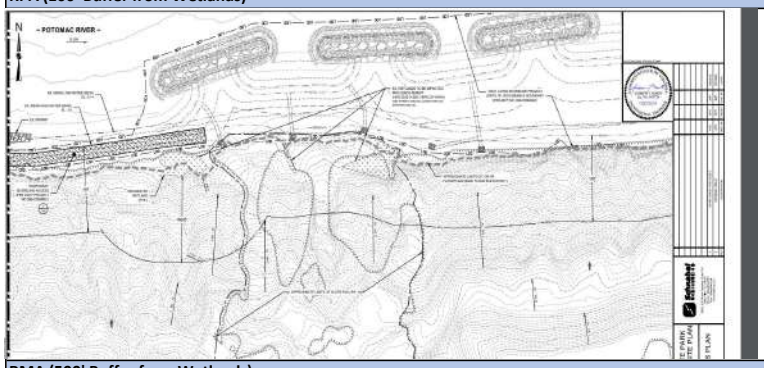
Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)

campsites, trash, toilets, buildings

Site Environmental Information

Wetlands (from National Wetlands Inventory (NWI))

RPA (100' Buffer from Wetlands)



RMA (500' Buffer from Wetlands)

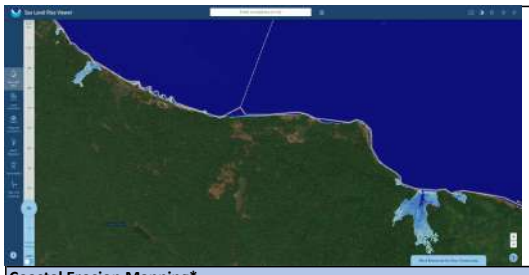
Floodplain (100 year and 500 year FEMA)*

Topography *

Rare, Threatened, Endangered Species Potential On Site (Flora and Fauna

Coastal Flood Vulnerability Mapping

Intermediate-high Sea Level Rise Mapping*



Coastal Erosion Mapping*

Date of Mean Low Water Inundation of Site or Access to Site*

Road Network Evaluations

Distance to Nearest Collector / Arterial Road*

at the road; 100ft cliff

Add Any Planned or Built Multi-Modal Network

Waterside

Prevailing wind direction

WSW

In-Water Features

Water Depths (if known)*

Tidal Range*

1.46 feet

Distance to Channel and Distance to Channel Markers*

About 15,000 feet

Fetch*

112,000 (?)

Submerged Aquatic Vegetation (SAV) Mapping

Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)

Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.

Type and Functionality*

Boat ramp, fishing piers (2), beach, picnic shelter, bathhouses, snack bar

Materials*

wood

Approximate Width and Length*

Approximate Elevation*

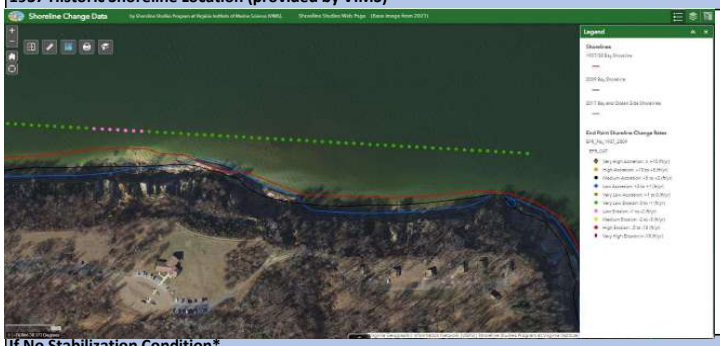
sea-level

Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*

plans for playground, picnic tables, potential for converting old bathhouse into a modern facility

Piles (condition, diameter, etc.)*

Pile Cap*

Stringers*
Deck Boards*
Railings*
Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*
playground & picnic tables to be bolted down;
Accessories (Cleats, Ladders, Ramps, Etc.)*
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
living shoreline, beach, eroding cliff
1937 Historic Shoreline Location (provided by VIMS) *

If No Stabilization Condition*
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
beach/scarp/marsh - Fossil Beach
Existing Stabilization Condition*
parts are stabilized with breakwaters
Revetment/Bulkhead/Living Shoreline/Other*
Living Shoreline
Marsh Condition Waterward of Shoreline Stabilization*
At Fossil Beach, marsh area
Materials*
Other Noticed Issues From the Shoreline Waterward

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Tides Inn - Living Shoreline	
Project Owner (Select One)*	
	PDC
	Locality
	Tribe
X	Private company name - The Tides Inn
Project Owner Contact Info (email)*	
Will Smiley - Concierge@TidesInn.com	
Project Partners*	
Project Phase (Select One)*	
	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
X	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
No	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
***Description** - Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP. *	
A shoreline stabilization project consisting of breakwaters and associated beach nourishment, vinyl sill, bulkhead, elevated boardwalk and marsh planting located along Carter Creek, a tributary to the Rappahannock River in Lancaster County, Virginia. This project reestablishes the historic shoreline and incorporates an elevated boardwalk/wharf.	
	Individual Lot: The project is expected to only benefit an individual lot.
X	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*	
480 King Carter Dr., Irvington, Virginia 22480	
Coastal Hazard Addressed (Select One or More)*	
	Tidal Flooding – flooding caused by daily or extreme high tides
	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
X	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other
Climate Standards (Select One or More)*	
X	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
	The project considers increased rainfall
	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed

Project Subtype (Select One or More) - See Appendix G for more information on subtypes
https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *****

Living Shoreline - Shoreline Stabilization

Total Implementation Cost *

Project Identifier *

VMRC#2020-1674

Owner Classification *

	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization Organization
	Trust
X	Other - business, private landowner, etc.

Estimated Start Date *

Permit Received: 2/4/2021

Estimated End Date *

Finish Project by: 1/31/2024

Information Link *

Design Life *

Planning, Engineering, and Permitting Cost *

Permitting Fees: $29,832.55

Construction Implementation Cost *

Average Annual Operations & Maintenance Cost *

Permitting Status *

Permit Recieved

Funding - Cost-Share Requirements *

Funding - Application Costs *

Additional Information -** Include dialogues w/ site manager & users here **

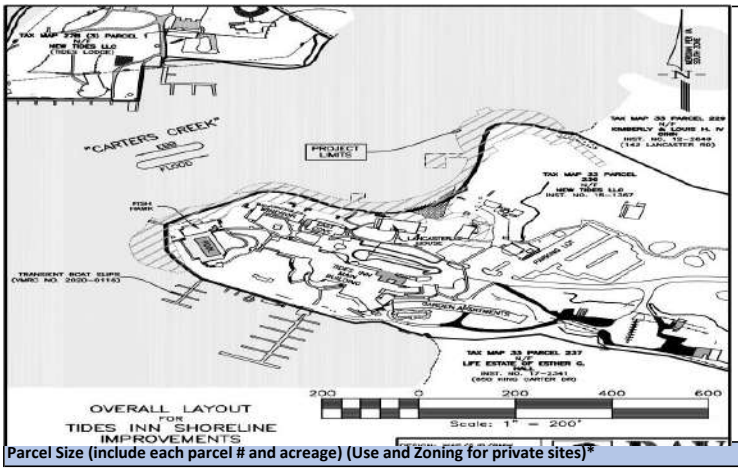
Site visit and tour with Will Smiley at The Tide's Inn on September 20, 2024.

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*



Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*

25 acres (?)

Owner*

New Tides, LLC.

Adjacent Property Owners, Parcel Size, and Use/zoning

Kimberly and Louis H. IV Ginn and Life Estate of Esther G. Hall

Approaching Land Use Character/Characteristics

Hotel, marina

Known Easements*

Land Features Inventory

Cover Type and General Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*

Parking (# of spaces, restrictions)

Staging/Offloading Areas for Commercial/Industrial Use

Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)

Critical Dimensions (road width, etc.)*

Utilities Present On Site (electric, communications, sewer, water, stormwater)*

Electric, town water, 2 wastewater treatment (hotel, restaurant, EV charging, etc.)

Wireless Internet / Cell Service Availability

Yes

Signage (wayfinding or regulatory)

yes

Drainage (ditches, upland erosion)*

Multiple BMPs installed throughout property

Evidence of Activity (recreational use, commercial use, trash dumping)

Recreational, Marina, Hotel, Pool, Restaurant

Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)

Beach chairs

Site Environmental Information

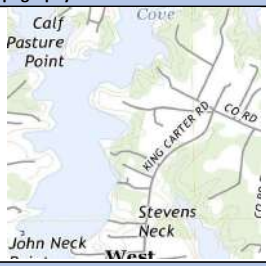
Wetlands (from National Wetlands Inventory (NWI))

RPA (100' Buffer from Wetlands)

RMA (500' Buffer from Wetlands)

Floodplain (100 year and 500 year FEMA)*

Topography *



Rare, Threatened, Endangered Species Potential On Site (Flora and Fauna

Coastal Flood Vulnerability Mapping

Intermediate-high Sea Level Rise Mapping*

Coastal Erosion Mapping*

Date of Mean Low Water Inundation of Site or Access to Site*

Road Network Evaluations

Distance to Nearest Collector / Arterial Road*

About 1500 feet to King Carter Drive

Add Any Planned or Built Multi-Modal Network

Waterside

Prevailing wind direction

NW

In-Water Features

Water Depths (if known)*

About 7 feet (?)

Tidal Range*

1.4 feet

Distance to Channel and Distance to Channel Markers*

About 200 feet

Fetch*

About 1700 feet

Submerged Aquatic Vegetation (SAV) Mapping

Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)

Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.

Type and Functionality*

Pool, Marina, boardwalk, beach with breakwaters

Materials*

wood

Approximate Width and Length*

Pool 80'x30'; Marina about 250'x130' (largest of the two dock/piers); beach about 150'x100'

Approximate Elevation*

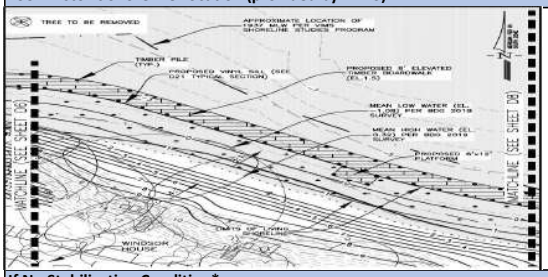
sea-level

Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*

Plans for upgraded bathroom facilities, pool upgrades, more BMP installation

Piles (condition, diameter, etc.)*

Pile Cap*

Stringers*
Deck Boards*
Railings*
Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*
Accessories (Cleats, Ladders, Ramps, Etc.)*
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
beach, living shoreline, oyster restoration, marsh
1937 Historic Shoreline Location (provided by VIMS) *

If No Stabilization Condition*
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
vegetated but steep slope
Existing Stabilization Condition*
vegetation, marsh, oyster recruitment
Revetment/Bulkhead/Living Shoreline/Other*
Living Shoreline, marsh, oyster recruitment
Marsh Condition Waterward of Shoreline Stabilization*
Materials*
Other Noticed Issues From the Shoreline Waterward

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Tides Inn - Bank Stabilization	
Project Owner (Select One)*	
	PDC
	Locality
	Tribe
X	Private company name - The Tides Inn
Project Owner Contact Info (email)*	
Will Smiley - Concierge@TidesInn.com	
Project Partners*	
Tides Inn	
Project Phase (Select One)*	
X	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
No	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
***Description** - Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP. *	
Bank stabilization near the site of a (removed) restaurant (The Binnacle) on Carter Creek, a tributary to the Rappahannock River in Lancaster County, Virginia. This project proposes bank stabilization to prevent shoreline and tree loss, similar to what was done on the other side of Carters Creek.	
	Individual Lot: The project is expected to only benefit an individual lot.
X	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*	
63 Binnacle Lane, Weems, VA 22576	
Coastal Hazard Addressed (Select One or More)*	
	Tidal Flooding – flooding caused by daily or extreme high tides
	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
X	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other
Climate Standards (Select One or More)*	
X	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
	The project considers increased rainfall
	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed

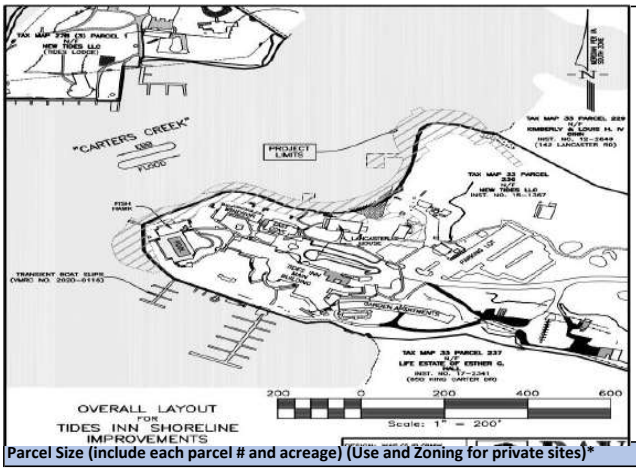
Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *	
Living Shoreline - Shoreline Stabilization	
Total Implementation Cost *	
Not yet scoped	
Project Identifier *	
Owner Classification *	
	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization Organization
	Trust
X	Other - business, private landowner, etc.
Estimated Start Date *	
N/A	
Estimated End Date *	
N/A	
Information Link *	
N/A	
Design Life *	
N/A	
Planning, Engineering, and Permitting Cost *	
N/A	
Construction Implementation Cost *	
n/A	
Average Annual Operations & Maintenance Cost *	
n/A	
Permitting Status *	
Not yet applied for	
Funding - Cost-Share Requirements *	
n/a	
Funding - Application Costs *	
n/a	
***Additional Information -** Include dialogues w/ site manager & users here *	
Discussion with Will Smiley in September 2024, looking at eroding bank across from Tides Inn from the current boardwalk along the newly revitalized living shoreline. Project is not yet scope	

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*



Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*

1.15 ac., R-2

Owner*

New Tides, LLC.

Adjacent Property Owners, Parcel Size, and Use/zoning

Thomas M. Armstrong, 69 ac., residential.

Approaching Land Use Character/Characteristics

Marina, residential waterfront housing

Known Easements*

N/A

Land Features Inventory

Cover Type and General Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*

Parking (# of spaces, restrictions)

n/A

Staging/Offloading Areas for Commercial/Industrial Use

N/A

Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)

N/A

Critical Dimensions (road width, etc.)*

N/A

Utilities Present On Site (electric, communications, sewer, water, stormwater)*

Electric, communications

Wireless Internet / Cell Service Availability

Yes

Signage (wayfinding or regulatory)

yes

Drainage (ditches, upland erosion)*

Yes

Evidence of Activity (recreational use, commercial use, trash dumping)

Recreational use, oyster aquaculture, SAV habitat

Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)

None

Site Environmental Information

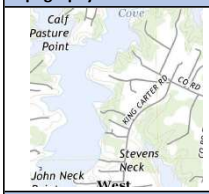
Wetlands (from National Wetlands Inventory (NWI))

RPA (100' Buffer from Wetlands)

RMA (500' Buffer from Wetlands)

Floodplain (100 year and 500 year FEMA)*

Topography *



Rare, Threatened, Endangered Species Potential On Site (Flora and Fauna

Coastal Flood Vulnerability Mapping

Intermediate-high Sea Level Rise Mapping*

Coastal Erosion Mapping*

N/A

Date of Mean Low Water Inundation of Site or Access to Site*

N/A

Road Network Evaluations

Distance to Nearest Collector / Arterial Road*

N/A

Add Any Planned or Built Multi-Modal Network

Waterside

Prevailing wind direction

NW

In-Water Features

Water Depths (if known)*

About 7 feet (?)

Tidal Range*

1.4 feet

Distance to Channel and Distance to Channel Markers*

About 200 feet

Fetch*

About 1700 feet

Submerged Aquatic Vegetation (SAV) Mapping

Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)

Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.

Type and Functionality*

viewshed from Tides Inn; former site of restaurant, now demolished, but visible on google maps: 37° 40' 2.6756" N 76° 26' 0.4211" W Goal is to stabilize bank and have site be an ecosystem

Materials*

natural state

Approximate Width and Length*

not yet determined

Approximate Elevation*

sea-level

Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*

none

Piles (condition, diameter, etc.)*

none

Pile Cap*

none

Stringers*

none

Deck Boards*

None

Railings*

None

Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*

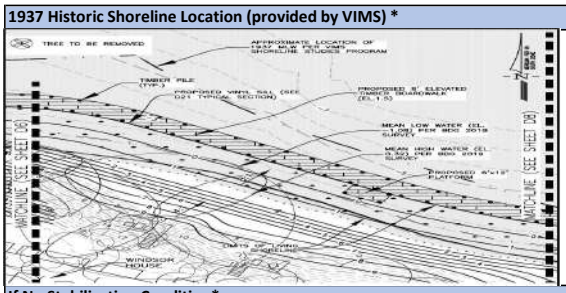
natural state

Accessories (Cleats, Ladders, Ramps, Etc.)*

None

Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*

beach, steep eroding bank

1937 Historic Shoreline Location (provided by VIMS) *	
	

If No Stabilization Condition*
None
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
vegetated but steep slope
Existing Stabilization Condition*
vegetation, marsh, oyster recruitment
Revetment/Bulkhead/Living Shoreline/Other*
Living Shoreline, marsh, oyster recruitment
Marsh Condition Waterward of Shoreline Stabilization*
None
Materials*
not yet determined
Other Noticed Issues From the Shoreline Waterward
project not yet completely scoped

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Browns Bay State Dock	
Project Owner (Select One)*	
X	PDC
	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
llawrence@mppdc.com	
Project Partners*	
None	
Project Phase (Select One)*	
X	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
No	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
***Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP.*	
Brown's Bay Landing is a heavily used commercial waterman site consisting of a public dock and limited uplands. The site is surrounded by private commercial operations and marsh land. The dock is heavily used for offloading seafood and commercial vessel parking. The dock provides convenient offloading from Brown's Bay and Mobjack Bay.	
Scale of Benefits (Select One)*	
	Individual Lot: The project is expected to only benefit an individual lot.
X	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*	
Gloucester, VA Perrin Wharf Look up 911 address	
Coastal Hazard Addressed (Select One or More)*	
X	Tidal Flooding – flooding caused by daily or extreme high tides
X	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
X	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
X	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other
Climate Standards (Select One or More)*	
	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
	The project considers increased rainfall
	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed

Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *****	
Stormwater Drainage Improvements, Green Infrastructure, living shoreline	
Total Implementation Cost *	
Unknown at this phase	
Project Identifier *	
Owner Classification *	
X	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization Organization
	Trust
X	Other - business, private landowner, etc. MPPAA
Estimated Start Date *	
NA	
Estimated End Date *	
na	
Information Link *	
NA	
Design Life *	
NA	
Planning, Engineering, and Permitting Cost *	
NA	
Construction Implementation Cost *	
NA	
Average Annual Operations & Maintenance Cost *	
NA	
Permitting Status *	
NA	
Funding - Cost-Share Requirements *	
NA	
Funding - Application Costs *	
NA	
Additional Information -** Include dialogues w/ site manager & users here **	

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*

Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*
Parcel #29758 .075 acres
Owner*
MPPAA
Adjacent Property Owners, Parcel Size, and Use/zoning
Commercial working waterfront, single family residential
Approaching Land Use Character/Characteristics
Residential low lying
Known Easements*
Land Features Inventory
Cover Type and Gerneral Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*
Parking (# of spaces, restrictions)
Staging/Offloading Areas for Commercial/Industrial Use
Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)
Critical Dimensions (road width, etc.)*
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Wireless Internet / Cell Service Availability
Signage (wayfinding or regulatory)
Drainage (ditches, upland erosion)*
Evidence of Activity (recreational use, commercial use, trash dumping)
Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)
Site Environmental Information
Wetlands (from National Wetlands Inventory (NWI))
RPA (100' Buffer from Wetlands)
RMA (500' Buffer from Wetlands)

Floodplain (100 year and 500 year FEMA)*
Topography *
Rare, Threatened, Endandgered Species Potential On Site (Flora and Fauna)
Coastal Flood Vulnerability Mapping
Intermediate-high Sea Level Rise Mapping*
Coastal Erosion Mapping*
Date of Mean Low Water Inundation of Site or Access to Site*
Road Network Evaluations
Distance to Nearest Collector / Arterial Road*
Add Any Planned or Built Multi-Modal Network
Waterside
Prevailing wind direction
In-Water Features
Water Depths (if known)*
Tidal Range*
Distance to Channel and Distance to Channel Markers*
Fetch*
Submerged Aquatic Vegetation (SAV) Mapping

Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)
Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.
Type and Functionality*
Materials*
Approximate Width and Length*
Approximate Elevation*
Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*
Piles (condition, diameter, etc.)*
Pile Cap*
Stringers*
Deck Boards*
Railings*
Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*
Accessories (Cleats, Ladders, Ramps, Etc.)*
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
1937 Historic Shoreline Location (provided by VIMS) *
If No Stabilization Condition*
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
Existing Stabilization Condition*
Revetment/Bulkhead/Living Shoreline/Other*
Marsh Condition Waterward of Shoreline Stabilization*
Materials*
Other Noticed Issues From the Shoreline Waterward

GLO-5 Brown's Bay Landing

Gloucester County | Brown's Bay

COMMERCIAL

SITE INFORMATION

Parcel ID 48-54A	**Size of Site** 0.532 acre	**Body of Water** Brown's Bay
Facility Name **Brown's Bay Landing**		**Water Depth** 1'-4'
Owner(s) VDOT		**Adjacent Land Use** Commercial
Physical Address N/A		**Coordinates** (37.3005036°, -76.4037144°)

OVERVIEW

Brown's Bay Landing is a heavily used commercial waterman site consisting of a public dock and limited uplands. The site is surrounded by private commercial operations and marsh land. The dock is heavily used for offloading seafood and commercial vessel parking. The dock provides convenient offloading from Brown's Bay and Mobjack Bay.

Access, Parking, Circulation

- Direct paved access road in good condition.
- Site ingress and egress in acceptable condition.
- Small end of road site does not allow for turnaround or loading.
- Access shared with surrounding operations.
- No room for parking or site improvements.

Environmental

- Channel markers visible in distance.
- Abandoned vessels and debris located along adjacent shoreline on private property.

Infrastructure

Dock

- Dock in good condition.
- Dock elevated high above water.

Boat Ramp

- No boat ramp present on site. Unimproved gravel boat ramp is present on adjacent private property.

Utilities

- Overhead utility lines noted.

Nearby Cultural Resources

Architectural

Archaeological

Equity Evaluation

HIGH IMPACT

Increased Jobs

Equity Emphasis Area

Justice 40 and/or 1 mile from a major transportation route.

Site Repair Costs

$$$$

LESS THAN $250,000

Nearby Natural Resources

Mabees Salamander

N/A

Loggerhead Sea Turtle

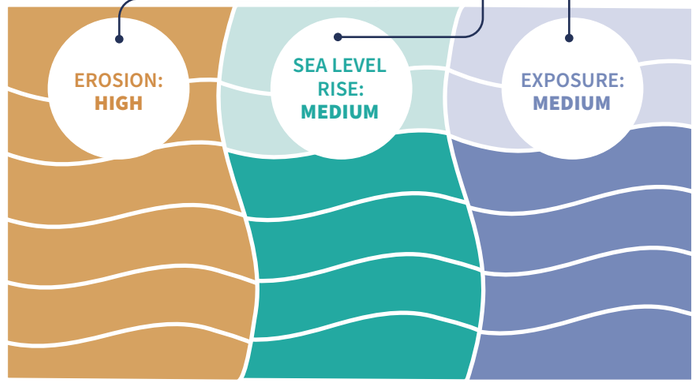
Eastern Black Rail

Henslows Sparrow

N/A

Coastal Vulnerability

OVERALL VULNERABILITY: **MEDIUM**



Vulnerability to coastal erosion.

Vulnerability to Sea Level Rise and Storm Surge.

Shoreline exposure.

Site Condition Assessment

Cultural Resources Summary

According to the Virginia Department of Historic Resources (DHR) online Virginia Cultural Resources Information System (V-CRIS), no properties eligible for listing in the National Register are in the vicinity of Browns Bay/Guinea/Severn Landing (GLO-5).

Natural Resources Summary

Two online search portals managed by the U.S. Fish and Wildlife Service (USFWS) and the Virginia Department of Wildlife Resources (VDWR) were used to determine if any state or federally listed threatened or endangered species are known to occur within the vicinity of the project site. The Information of Planning and Consultation (IPaC), managed by the USFWS, lists the federally endangered and state threatened northern long-eared bat (Myotis septentrionalis), the federally proposed endangered and state endangered tri-colored bat (Perimyotis subflavus), the federally threatened and state endangered eastern black rail (Laterallus jamaicensis), and the candidate species monarch butterfly (Danaus plexippus) as species that are known or expected to be near Browns Bay/Guinea/Severn Landing (GLO-5). The Virginia Fish and Wildlife Information System (VaFWIS), managed by the VDWR, lists the federally threatened and state threatened loggerhead sea turtle (Caretta caretta) as confirmed within 2 miles of the project boundary. The federally threatened and state endangered eastern black rail (Laterallus jamaicensis), the state threatened Henslow's sparrow (Ammodramus henslowii), and the state threatened Mabee's salamander (Ambystoma mabeei) are listed as having potential habitat within 2 miles of the project boundary. Refer to Appendix A: Detailed Species Information for additional descriptions of each species.

The Center for Conservation Biology's Bald Eagle Nest Locator was used to identify bald eagle nests in the vicinity of the project site. No bald eagle nests are listed within the vicinity of the site.






Existing Conditions Photos

Existing Conditions Photos

Structural Conditions Summary

Dock Description

The T-shaped fixed timber pier has 320 foot long by 8-foot-wide shore perpendicular access pier out to a 20-foot by 35-foot rectangular pierhead. The pier is accessible by steps and 15 feet by 12 feet loading and unloading platform as the start of the dock.

Existing Conditions

The existing shoreline consists of marsh vegetation. Access to the pier is from the paved end of the road and the access is not ADA compliant as there are only stairs and no ramp. The deck elevation is set high and appears to potentially make loading and unloading difficult at lower tides. The deck boards are showing signs of minor to moderate weathering. Stringers and caps appear in fair condition. Hardware connections have minimal signs of corrosion. Piles are showing some signs of furring and discoloration but appear to only have minor issues. Cross bracing is discolored but not visible decay holes were observed. The pier offers side-tie mooring only.

The girders appear to only show minor defects and the hardware attaching the caps is showing minor to moderate corrosion. The piles from shore to about midway are newer and in fair condition with minor issues, but the remainder of the piles show signs of moderate weathering and have a moderate level of marine growth.

Several derelict boats are in the mooring slips and another was observed directly across on the west side of the dock.

The table provided indicates existing conditions of the components of the dock structure based on visual inspection only, and typical expected remaining lifespan. Severe storm events, sea level rise, or other unknown factors may accelerate the deterioration of the dock.

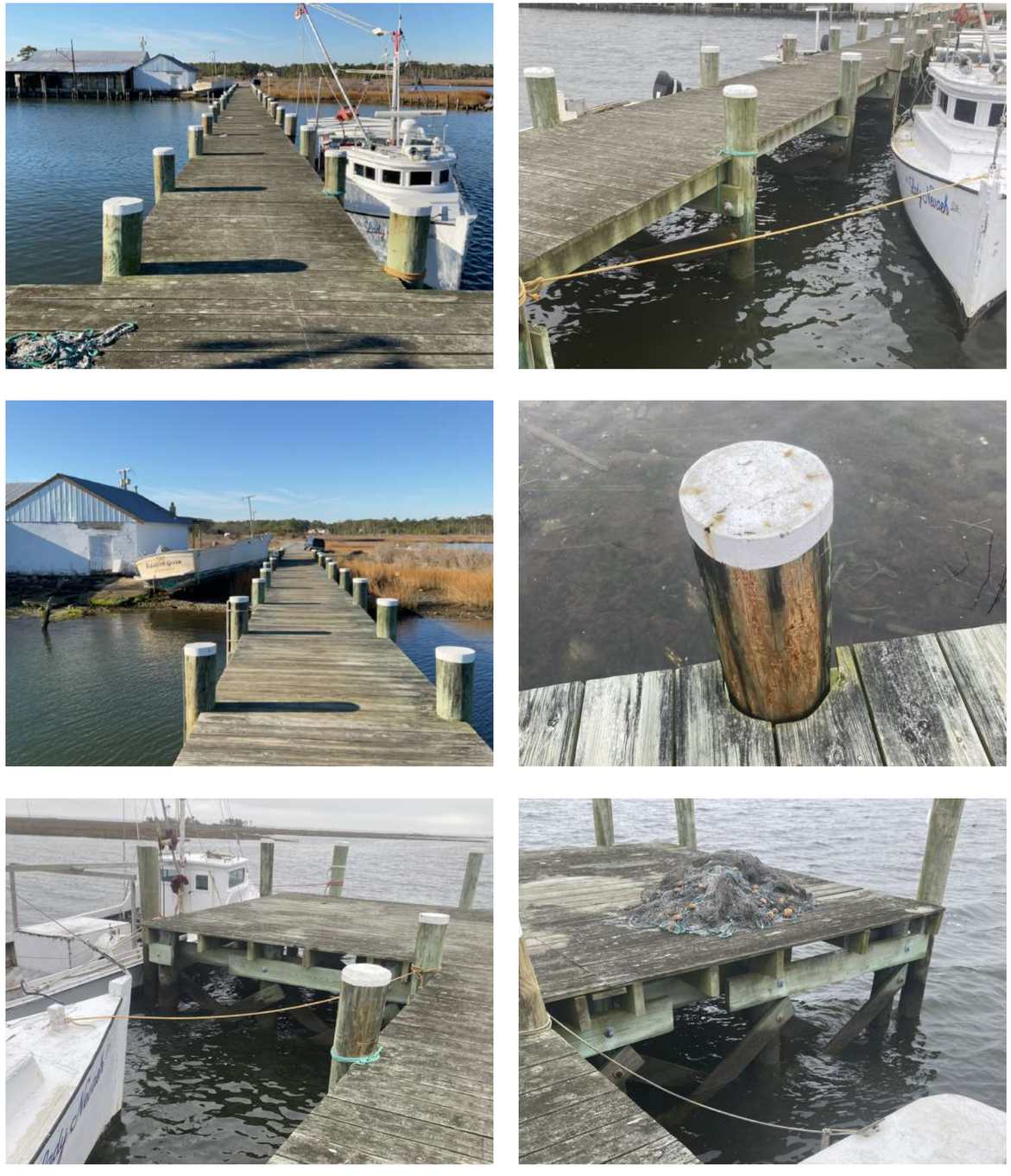
Recommendations

Continue to monitor the pier every few years and continue any maintenance of the structure.

Existing Conditions

Dock Element	Good Condition	Minor Issues	Moderate Issues	Major Issues	Severe Issues
Remaining Lifespan*	**15-25 Years**	**10-15 years**	**5-10 Years**	**1-5 Years**	**0-1 Year**
Decking		✓			
Stringers		✓			
Girders		✓			
Piles		✓			
Cross-Bracing		✓			
Hardware		✓			

**Dock conditons based on visual observations. Remaining lifespan are approximate and based on typical expected weathering.*



Dock Existing Conditions Photos

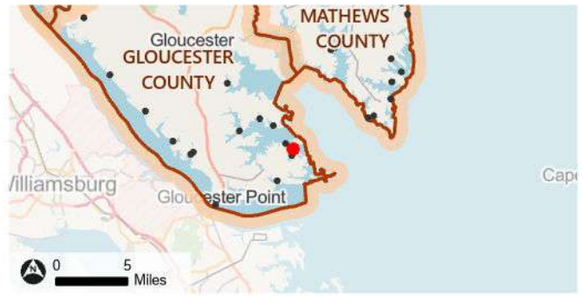
Figure 54: Brown's Bay/Guinea/Severn Landing (GLO-05) | Gloucester County, Virginia | Parcels

Parcel Tax Map ID	Owner Name	Land Use
0693-19-2817	COMMONWEALTH OF VIRGINIA, BOARD OF WILDLIFE RESOUR	Parks, Open Space, & Greenways
0693-29-5798	OYSTER WIDOWS LLC	Parks, Open Space, & Greenways
0693-29-6721	PUBLIC LANDING GUINEA (JENKINS)	Parks, Open Space, & Greenways
0694-41-4912		Parks, Open Space, & Greenways
0693-29-6063	SOUTH BAY COMPANY LLC	Parks, Open Space, & Greenways
0693-39-0531		Parks, Open Space, & Greenways

Source: VGIN/VBMP Most Recent Ortho-imagery

Figure 54: Brown's Bay/Guinea/Severn Landing (GLO-05) | Gloucester County, Virginia | Natural Resources Analysis

Source: VGIN/VBMP Most Recent Ortho-imagery



Legend

- Site Boundary
- Resource Protection Area (100' buffer)
- Estuarine and Marine Wetland

Figure 54: Brown's Bay/Guinea/Severn Landing (GLO-05) | Gloucester County, Virginia | Conservation and Wildlife Analysis

Legend

- Site Boundary
- Private Oyster Leases
- Submerged Aquatic Vegetation
- Conservation Lands - State

Source: VGIN/VBMP Most Recent Ortho-imagery

Path: \\vhb.com\gis\proj\Williamsburg\35120\00 Mid-Pen_Multimodal_Water\Project\MMPDC_Shoreline_Conditions_MASTER.aprx (User: mreed Date: 8/16/2024)

Figure 54: Brown's Bay/Guinea/Severn Landing (GLO-05) | Gloucester County, Virginia | Coastal Resilience - Floodplain

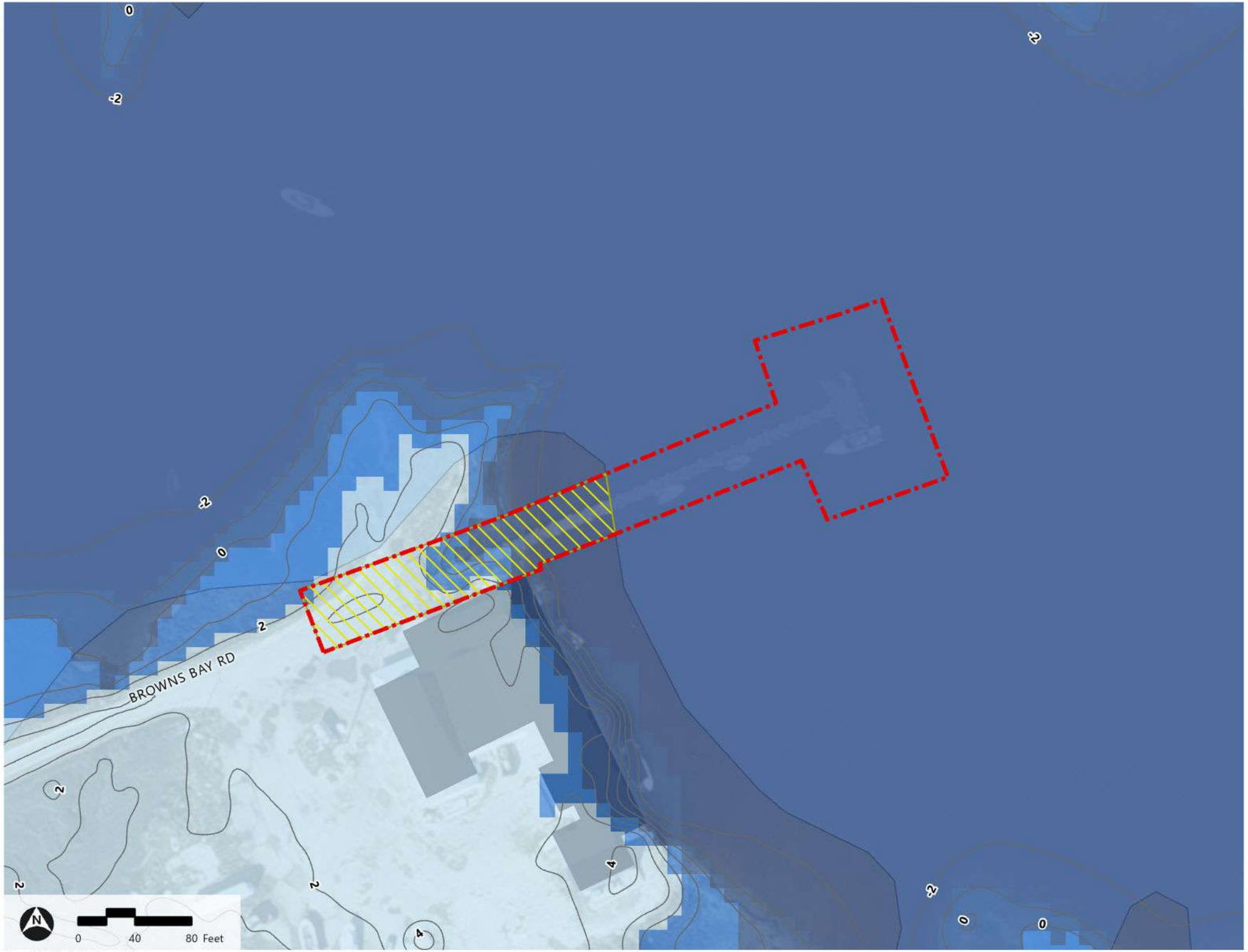
Legend

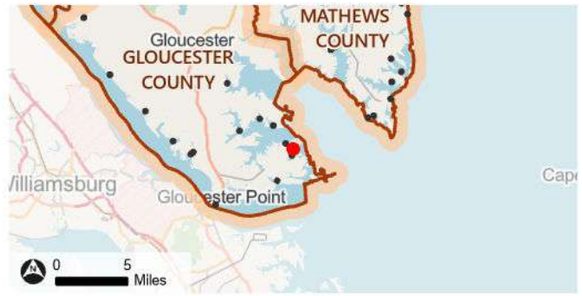
- Site Boundary
- Contours 1ft
- Waterbody
- Building Footprints

FEMA Flood Hazard

- Flood Zone AE

Figure 54: Brown's Bay/Guinea/Severn Landing (GLO-05) | Gloucester County, Virginia | Coastal Resilience - Sea Level Rise





Legend

- Contours 1ft
- Waterbody
- Building Footprints

SLR Risk

- 03 Low Risk

Projected Sea Level

- 2020
- 2040
- 2060
- 2080

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Davis Creek	
Project Owner (Select One)*	
	PDC
X	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
llawrence@mppdc.com	
Project Partners*	
None	
Project Phase (Select One)*	
X	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
No	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
***Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP.*	
Davis Creek Landing is an existing commercial waterman dock with adjacent private facilities. The site provides quick and convenient access to Mobjack Bay and the Chesapeake Bay from Davis Creek. The site is regularly used for oyster and crab offloading and receives recreational use in the summer. Limited upland is available for expansion.	
Scale of Benefits (Select One)*	
	Individual Lot: The project is expected to only benefit an individual lot.
X	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*	
346 Davis Creek Rd Mathews VA	
Coastal Hazard Addressed (Select One or More)*	
X	Tidal Flooding – flooding caused by daily or extreme high tides
X	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
X	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
X	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other
Climate Standards (Select One or More)*	
	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
	The project considers increased rainfall
	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed

Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *	
Stormwater Drainage Improvements, Green Infrastructure, living shoreline	
Total Implementation Cost *	
Unknown at this phase	
Project Identifier *	
Owner Classification *	
	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
X	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization Organization
	Trust
	Other - business, private landowner, etc. MPPAA
Estimated Start Date *	
NA	
Estimated End Date *	
na	
Information Link *	
NA	
Design Life *	
NA	
Planning, Engineering, and Permitting Cost *	
NA	
Construction Implementation Cost *	
NA	
Average Annual Operations & Maintenance Cost *	
NA	
Permitting Status *	
NA	
Funding - Cost-Share Requirements *	
NA	
Funding - Application Costs *	
NA	
***Additional Information -** Include dialogues w/ site manager & users here *	
The dock is showing its age, and the piles appear to be reaching the end of their useful life. A further structural inspection is required to determine the remaining life of the structure or any imminent safety hazards. Do not recommend doing any major improvements of decking, caps, or stringers, until the conditions of the piles is known.	

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*

Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*
Parcel #29758 .075 acres
Owner*
MPPAA
Adjacent Property Owners, Parcel Size, and Use/zoning
Commercial working waterfront, single family residential
Approaching Land Use Character/Characteristics
Residential low lying
Known Easements*
Land Features Inventory
Cover Type and Gerneral Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*
Parking (# of spaces, restrictions)
Staging/Offloading Areas for Commercial/Industrial Use
Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)
Critical Dimensions (road width, etc.)*
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Wireless Internet / Cell Service Availability
Signage (wayfinding or regulatory)
Drainage (ditches, upland erosion)*
Evidence of Activity (recreational use, commercial use, trash dumping)
Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)
Site Environmental Information
Wetlands (from National Wetlands Inventory (NWI))
RPA (100' Buffer from Wetlands)
RMA (500' Buffer from Wetlands)

Floodplain (100 year and 500 year FEMA)*
Topography *
Rare, Threatened, Endandgered Species Potential On Site (Flora and Fauna)
Coastal Flood Vulnerability Mapping
Intermediate-high Sea Level Rise Mapping*
Coastal Erosion Mapping*
Date of Mean Low Water Inundation of Site or Access to Site*
Road Network Evaluations
Distance to Nearest Collector / Arterial Road*
Add Any Planned or Built Multi-Modal Network
Waterside
Prevailing wind direction
In-Water Features
Water Depths (if known)*
Tidal Range*
Distance to Channel and Distance to Channel Markers*
Fetch*
Submerged Aquatic Vegetation (SAV) Mapping

Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)
Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.
Type and Functionality*
Materials*
Approximate Width and Length*
Approximate Elevation*
Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*
Piles (condition, diameter, etc.)*
Pile Cap*
Stringers*
Deck Boards*
Railings*
Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*
Accessories (Cleats, Ladders, Ramps, Etc.)*
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
1937 Historic Shoreline Location (provided by VIMS) *
If No Stabilization Condition*
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
Existing Stabilization Condition*
Revetment/Bulkhead/Living Shoreline/Other*
Marsh Condition Waterward of Shoreline Stabilization*
Materials*
Other Noticed Issues From the Shoreline Waterward

MA-1 Davis Creek Landing

Mathews County | Davis Creek

COMMERCIAL & RECREATIONAL

SITE INFORMATION

Parcel ID 43-A-36	**Size of Site** .22 acres	**Body of Water** Davis Creek
Facility Name Davis Creek Landing		**Water Depth** >4’
Owner(s) Mathews County		**Adjacent Land Use** Commerial, Residential
Physical Address 346 Davis Creek Rd, Shadow, VA 23163		**Coordinates** 37.3326796°, -76.2994108°

OVERVIEW

Davis Creek Landing is an existing commercial waterman dock with adjacent private facilities. The site provides quick and convenient access to Mobjack Bay and the Chesapeake Bay from Davis Creek. The site is regularly used for oyster and crab offloading and receives recreational use in the summer. Limited upland is available for expansion.

Access, Parking, Circulation

- Paved access road in good condition.
- Large gravel turnaround area in poor condition.
- Parking area is limited and in poor condition.
- Site ingress and egress in acceptable condition.

Environmental

- Small fragmented marsh in the revetment.

Infrastructure

Dock

- Large functional dock for offloading seafood. Routine maintenance is needed.

Boat Ramp

- Unimproved boat ramp existing. Limited space for expanded use.

Utilities

- Electrical and Communication utilities noted on site.

Shoreline Stabilization

- A small stone revetment in acceptable condition is present between the dock and upland.

Nearby Cultural Resources

Architectural

Archaeological

Equity Evaluation

MEDIUM IMPACT

Increased Jobs

Equity Emphasis Area

Justice 40 and/or 1 mile from a major transportation route.

Site Repair Costs

$$$$

$250,000-$500,000

Nearby Natural Resources

Mabees Salamander

Northeastern Beach Tiger Beetle

Loggerhead Sea Turtle

Kemps Ridley Sea Turtle

Eastern Black Rail

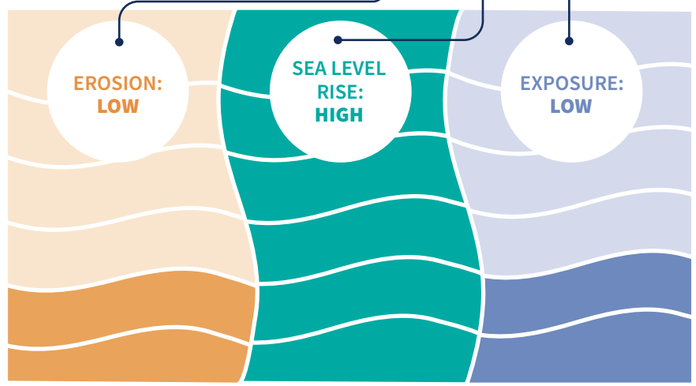
Henslows Sparrow

Piping Plover

Wilsons Plover

Atlantic Sturgeon

Coastal Vulnerability



Vulnerability to coastal erosion.

Vulnerability to Sea Level Rise and Storm Surge.

Shoreline exposure.

Site Condition Assessment

Cultural Resources Summary

According to the Virginia Department of Historic Resources (DHR) online Virginia Cultural Resources Information System (V-CRIS), one architectural resource (DHR ID: 057-5493) was identified within the vicinity of Davis Creek Landing (MA-1). No archaeological resources eligible for listing in the National Register are in the vicinity of the project.

DHR ID# 057-5493 is an architectural resource associated with a dwelling located southeast of the project. This resource was surveyed in February 2017, but was not evaluated for eligibility for listing in the National Register of Historic Places (NRHP). The building is a two-story, 4 bay farmhouse that was built in the year 1930. Additional onsite resources include a pier, a well house, and a mobile home. Further survey of this resource may be required to fully evaluate its eligibility for listing in the NRHP to determine the project's potential to affect historic properties.

Natural Resources Summary

Two online search portals managed by the U.S. Fish and Wildlife Service (USFWS) and the Virginia Department of Wildlife Resources (VDWR) were used to determine if any state or federally listed threatened or endangered species are known to occur within the vicinity of the project. The Information of Planning and Consultation (IPaC), managed by the USFWS, lists the federally endangered and state threatened northern long-eared bat (Myotis septentrionalis), the federally proposed endangered and state endangered tri-colored bat (Perimyotis subflavus), the federally threatened and state endangered eastern black rail (Laterallus jamaicensis), the candidate species monarch butterfly (Danaus plexippus), and the federally threatened and state threatened northeastern beach tiger beetle (Habroscelimorpha dorsalis dorsalis) as species that are known or expected to be near Davis Creek Landing (MA-1). The Virginia Fish and Wildlife Information System (VaFWIS), managed by the VDWR, lists the federally endangered and state endangered Kemp's ridley sea turtle (Lepidochelys kempii), the federally threatened and state threatened loggerhead sea turtle (Caretta caretta), the federally threatened and state threatened piping plover (Charadrius melodus) and the federally threatened and state threatened northeastern beach tiger beetle (Habroscelimorpha dorsalis dorsalis) as confirmed within 2 miles of the project boundary. The federally threatened and state endangered eastern black rail (Laterallus jamaicensis), the state endangered Wilson's plover (Charadrius wilsonia), the state threatened Henslow's sparrow (Ammodramus henslowii), and the state threatened Mabee's salamander (Ambystoma mabeei) are listed as having potential habitat within 2 miles of the site. Refer to Appendix A: Detailed Species Information for additional descriptions of each species.

The Center for Conservation Biology's Bald Eagle Nest Locator was used to identify bald eagle nests in the vicinity of the project site.

No bald eagle nests are listed within the vicinity of the site.

Adjacent Land Use Photos

Landside Use Photos

Structural Conditions Summary

Dock Description

The fixed timber pier runs shore parallel and has two access ramps. The pier is approximately 140 feet long and 16 feet wide.

Existing Conditions

The shoreline is made up of a rip-rap revetment that is in fair condition. Access to the pier is by a timber ramp from gravel parking area. It is likely that the ramp access is not ADA but could easily be converted. The existing deck elevation appears to keep the substructure from continuously wetting during high tides. The deck boards are showing signs of moderate weathering. The visible caps and stringers have minor issues, but the hardware connections are minor to moderately corroded. No cross bracing was observed as part of the structure. The portion of the piles above high tide are old and weathered with the portions below high tide having severe marine bore and some section less. Docking at the pier is by side-tie only.

Recommendations

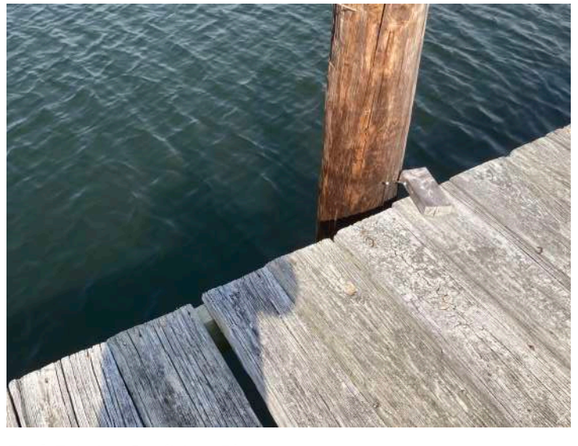
The dock is showing its age, and the piles appear to be reaching the end of their useful life. A further structural inspection is required to determine the remaining life of the structure or any imminent safety hazards. Do not recommend doing any major improvements of decking, caps, or stringers, until the conditions of the piles is known.

Existing Conditions

Dock Element	Good Condition	Minor Issues	Moderate Issues	Major Issues	Severe Issues
Remaining Lifespan*	15-25 Years	10-15 years	5-10 Years	1-5 Years	0-1 Year
Decking			✓		
Stringers		✓			
Girders		✓			
Piles					✓
Cross-Bracing		✓			
Hardware			✓		

**Dock conditons based on visual observations. Remaining lifespan are approximate and based on typical expected weathering.*

Waterside Photos



Dock Existing Conditions Photos

Figure 27: Davis Creek Wharf (MA-01) | Mathews County, Virginia | Parcels

Source: VGIN/VBMP Most Recent Ortho-imagery

Path: \\vhb.com\gis\proj\Williamsburg\35120.00 Mid-Pen_Multimodal_Water\Project\MMPDC_Shoreline_Conditions_MASTER.aprx (User: mhead, Date: 8/5/2024)

Parcel Tax Map ID	Owner Name	Land Use
43-3--3	RILEY, H. SCOTT &	Single Family Residential
43-3--4	RILEY, H. SCOTT &	Single Family Residential
43-A-26	BATTLE, WILLIAM A. & CHERYL A.	Single Family Residential
43-A-38	MULLIGAN, RICHARD C. & JO ANN	Single Family Residential
43-A-39	CHADWELL, JAMES E. & MONICA M.	Single Family Residential
43A-1--A	MULLIGAN, RICHARD C. & JO ANN	Commercial
43A-1--B	MULLIGAN, RICHARD C. & JO ANN	Commercial
43A-1--C	MULLIGAN, RICHARD C. & JO ANN	Commercial
43A-1--D	MULLIGAN, RICHARD C. & JO ANN	Single Family Residential
41-A-89	WILLIAM M., SR. & MARGIE P. SNOW,	Single Family Residential
41-A-91	COOK, THOMAS M. & GRETCHEN C.	Single Family Residential
41-A-92	SWINEFORD, JOHN W., II	Single Family Residential
43-1--3A	HUDGINS, LOWRY K., JR. &	Commercial
43-1--1A	DAVIS, THELMA DARLENE	Commercial
43-1--5B	HUDGINS, LOWRY K., JR. &	Commercial
43-3--1	MULLIGAN, R. CRAIG & JO ANN	Single Family Residential
43-3--2	APPICH, CHARLES W., III & SHARON H.	Single Family Residential
43-A-36	COUNTY OF MATHEWS	Commercial
43-1--4	BUTLER, DAVID	Commercial
43-1--5A	HUDGINS, LOWRY K., JR. &	Commercial
41-A-90	BROWN, ELIZABETH ANNE	Commercial

Figure 27: Davis Creek Wharf (MA-01) | Mathews County, Virginia | Natural Resources Analysis

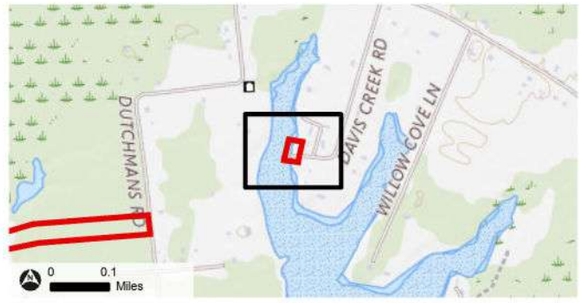
Source: VGIN/VBMP Most Recent Ortho-imagery

Path: \\vhb.com\gis\proj\Williamsburg\35120.00 Mid-Pen_Multimodal_WaterProject\MMPDC_Shoreline_Conditions_MASTER.aprx (User: mread Date: 8/19/2024)

Legend

- Site Boundary
- Resource Protection Area (100' buffer)

Figure 27: Davis Creek Wharf (MA-01) | Mathews County, Virginia | Conservation and Wildlife Analysis



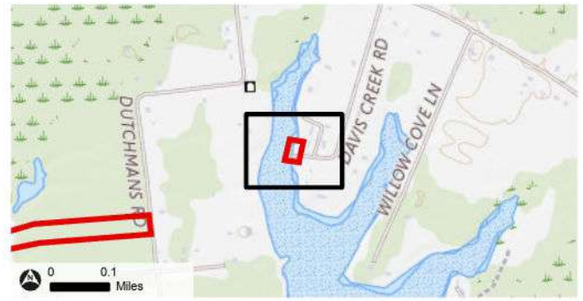
Legend

- Site Boundary
- Submerged Aquatic Vegetation
- Shellfish Condemnation Zone

Source: VGIN/VBMP Most Recent Ortho-imagery

Path: \\rhtcorp\corp\Williamsburg\35120\00 Mid-Pen_Multimodal_Water\Project\MMPDC_Shoreline_Conditions_MASTER.aprx | User: mmead | Date: 8/13/2024

Figure 27: Davis Creek Wharf (MA-01) | Mathews County, Virginia | Coastal Resilience - Floodplain



Legend

- Site Boundary
- Limit of Moderate Wave Action
- Contours 1ft
- Waterbody
- Building Footprints

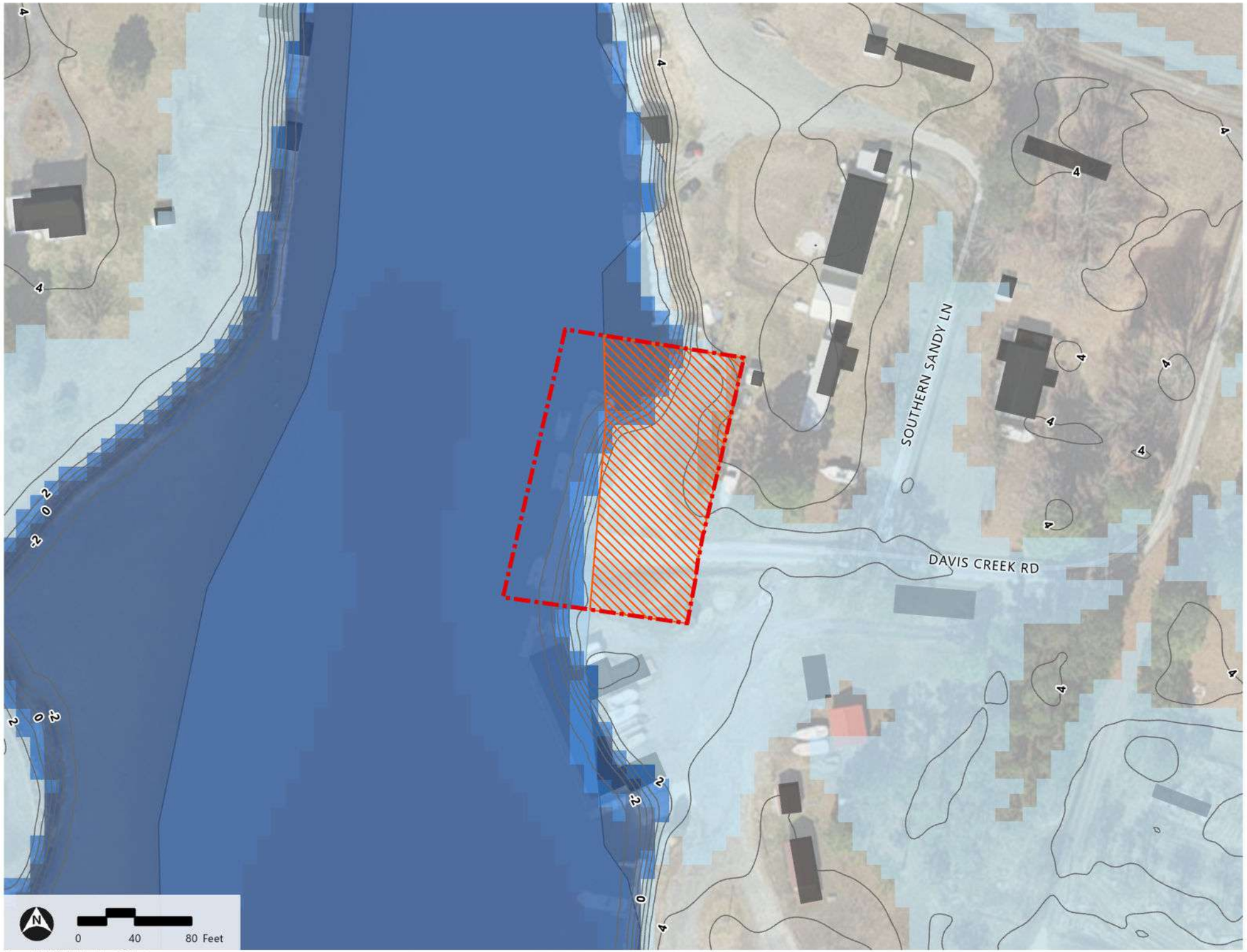
FEMA Flood Hazard

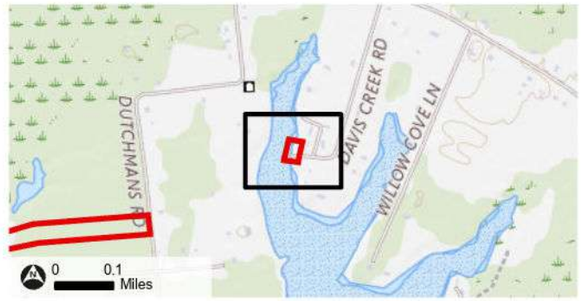
- Flood Zone AE

Source: VGIN/VBMP Most Recent Ortho-imagery

Path: \\vhb.com\gis\proj\Williamsburg\35120.00 Mid-Pen_Multimodal_Water\Project\MMPDC_Shoreline_Conditions_MASTER.aprx (User: mreed Date: 8/14/2024)

Figure 27: Davis Creek Wharf (MA-01) | Mathews County, Virginia | Coastal Resilience - Sea Level Rise





Legend

- Contours 1ft
- Waterbody
- Building Footprints

SLR Risk

- 02 Moderate Risk

Projected Sea Level

- 2020
- 2040
- 2060
- 2080

Source: VGIN/VBMP Most Recent Ortho-imagery

Path: \\vhb.com\gis\proj\Williamsburg\35120.00 Mid-Pen_Multimodal_WaterProject\MXD\PDC_Shoreline_Conditions_MASTER.aprx (User: mreed Date: 8/14/2024)

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Locklies Creek Landing	
Project Owner (Select One)*	
	PDC
X	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
llawrence@mppdc.com	
Project Partners*	
None	
Project Phase (Select One)*	
X	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
No	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
***Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP.*	
Locklies Creek Landing is located on Locklies Creek Road on Locklies Creek. The site is primarily used for commercial watermen purposes. The site is also neighboring several commercial facilities with heavy waterman activity. The site is very accessible and has potential for improvement.	
Scale of Benefits (Select One)*	
	Individual Lot: The project is expected to only benefit an individual lot.
X	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*	
346 Davis Creek Rd Mathews VA	
Coastal Hazard Addressed (Select One or More)*	
X	Tidal Flooding – flooding caused by daily or extreme high tides
X	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
X	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
X	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other
Climate Standards (Select One or More)*	
	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
	The project considers increased rainfall
	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed

Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *****	
Stormwater Drainage Improvements, Green Infrastructure, living shoreline	
Total Implementation Cost *	
Unknown at this phase	
Project Identifier *	
Owner Classification *	
	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
X	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization Organization
	Trust
	Other - business, private landowner, etc. MPPAA
Estimated Start Date *	
NA	
Estimated End Date *	
na	
Information Link *	
NA	
Design Life *	
NA	
Planning, Engineering, and Permitting Cost *	
NA	
Construction Implementation Cost *	
NA	
Average Annual Operations & Maintenance Cost *	
NA	
Permitting Status *	
NA	
Funding - Cost-Share Requirements *	
NA	
Funding - Application Costs *	
NA	
Additional Information -** Include dialogues w/ site manager & users here **	
Recommendations The pier is showing age but appears to only have minor issues. Repairing cross bracing will provide strength back to the structure. Replace the hardware pieces that are showing moderate corrosion and stabilizing the area at the entrance to the pier will prevent further erosion at the pier connection	

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*

Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*
Parcel #29758 .075 acres
Owner*
MPPAA
Adjacent Property Owners, Parcel Size, and Use/zoning
Commercial working waterfront, single family residential
Approaching Land Use Character/Characteristics
Residential low lying
Known Easements*
Land Features Inventory
Cover Type and Gerneral Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*
Parking (# of spaces, restrictions)
Staging/Offloading Areas for Commercial/Industrial Use
Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)
Critical Dimensions (road width, etc.)*
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Wireless Internet / Cell Service Availability
Signage (wayfinding or regulatory)
Drainage (ditches, upland erosion)*
Evidence of Activity (recreational use, commercial use, trash dumping)
Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)
Site Environmental Information
Wetlands (from National Wetlands Inventory (NWI))
RPA (100' Buffer from Wetlands)
RMA (500' Buffer from Wetlands)

Floodplain (100 year and 500 year FEMA)*
Topography *
Rare, Threatened, Endandgered Species Potential On Site (Flora and Fauna)
Coastal Flood Vulnerability Mapping
Intermediate-high Sea Level Rise Mapping*
Coastal Erosion Mapping*
Date of Mean Low Water Inundation of Site or Access to Site*
Road Network Evaluations
Distance to Nearest Collector / Arterial Road*
Add Any Planned or Built Multi-Modal Network
Waterside
Prevailing wind direction
In-Water Features
Water Depths (if known)*
Tidal Range*
Distance to Channel and Distance to Channel Markers*
Fetch*
Submerged Aquatic Vegetation (SAV) Mapping

Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)
Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.
Type and Functionality*
Materials*
Approximate Width and Length*
Approximate Elevation*
Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*
Piles (condition, diameter, etc.)*
Pile Cap*
Stringers*
Deck Boards*
Railings*
Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*
Accessories (Cleats, Ladders, Ramps, Etc.)*
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
1937 Historic Shoreline Location (provided by VIMS) *
If No Stabilization Condition*
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
Existing Stabilization Condition*
Revetment/Bulkhead/Living Shoreline/Other*
Marsh Condition Waterward of Shoreline Stabilization*
Materials*
Other Noticed Issues From the Shoreline Waterward

MDX-8 Locklies Creek Landing

Middlesex County | Locklies Creek

COMMERCIAL

OVERVIEW

Locklies Creek Landing is located on Locklies Creek Road on Locklies Creek. The site is primarily used for commercial watermen purposes. The site is also neighboring several commercial facilities with heavy waterman activity. The site is very accessible and has potential for improvement.

SITE INFORMATION

Parcel ID 30E-1-8A	**Size of Site** N/A	**Body of Water** Locklies Creek
Facility Name Locklies Creek Landing		**Water Depth** > 4’
Owner(s) Middlesex County		**Adjacent Land Use** Residential,Commercial
Physical Address N/A		**Coordinates** 37.5938435°, -76.4351775°

Access, Parking, Circulation

- Paved access road in acceptable condition.
- Large parking lot in good condition.
- Turnaround area in acceptable condition.
- Site is bisected by Locklies Road, so there is minor traffic through the site.

Environmental

- Marsh in good condition on waterfront.

Infrastructure

Dock

- Dock is heavily used and well maintained in acceptable condition.

Boat Ramp

- No boat ramp on site.

Utilities

- Electrical utilities observed on site.

Nearby Cultural Resources

Architectural

Archaeological

Equity Evaluation

HIGH IMPACT

Increased Jobs

Equity Emphasis Area

Justice 40 and/or 1 mile from a major transportation route.

Site Repair Costs

$$$$

LESS THAN $250,000

Nearby Natural Resources

N/A

Northeastern Beach Tiger Beetle

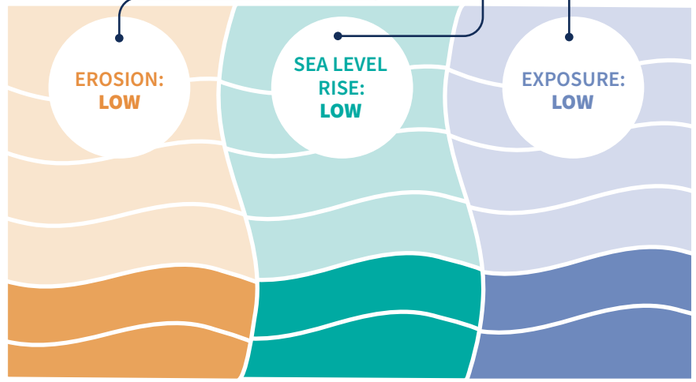
Loggerhead Sea Turtle

Peregrine Falcon

Atlantic Sturgeon

Coastal Vulnerability

OVERALL VULNERABILITY: **LOW**



Vulnerability to coastal erosion.

Vulnerability to Sea Level Rise and Storm Surge.

Shoreline exposure.

Site Condition Assessment

Cultural Resources Summary

According to the Virginia Department of Historic Resources (DHR) online Virginia Cultural Resources Information System (V-CRIS), two architectural resources (DHR ID# 059-5439 and DHR ID# 059-5436) were identified within the vicinity of Locklies Creek Landing (MDX-8). No archeological resources eligible for listing in the National Register are in the vicinity of the project.

DHR ID# 059-5439 was surveyed in December 2021, but was not evaluated for eligibility for listing in the National Register of Historic Places (NRHP). The resource known as Locklies Landing is a rectangular wooden plank dock and pier structure that extends south from the bank over Locklies Creek. Locklies Landing was constructed by Bob Wyatt, owner and operator of the neighboring Locklies Marina in the mid-twentieth century to serve as a public dock for African American watermen and boat captains. In addition to serving to local seafood industry, African American captains used the site for launching recreational charter fishing operations that were popular during the 1950s and 1960s. Further survey of this resource may be required to fully evaluate its eligibility for listing in the NRHP to determine the project's potential to affect historic resources.

DHR ID# 059-5436 was surveyed in December 2021, but was not evaluated for eligibility for listing in the NRHP. The resource currently known as the Locklies Marina is a one-story wood frame boathouse with a gross-gable roof clad in architectural composite shingle and unpainted clapboard siding. Locklies Marina was established by R. H. Wiatt in 1929 and served as a marina and oyster company for much of its history. It remains an active marina and seafood restaurant today. The site has also documented association with African American watermen who used the nearby public dock, and likely sold oysters to the company on site. Further survey of this resource may be required to fully evaluate its eligibility for listing in the NRHP to determine the project's potential to affect historic resources.

Natural Resources Summary

Two online search portals managed by the U.S. Fish and Wildlife Service (USFWS) and the Virginia Department of Wildlife Resources (DWR) were used to determine if any state or federally listed threatened or endangered species are known to occur within the vicinity of the project site. The Information of Planning and Consultation (IPaC), managed by the USFWS, lists the federally endangered and state threatened northern long-eared bat (Myotis septentrionalis), the federally proposed endangered and state endangered tri-colored bat (Perimyotis subflavus), and the candidate species monarch butterfly (Danaus plexippus) as species that are known or expected to be near Locklies Creek Landing (MDX-8). The Virginia Fish and Wildlife Information System (VaFWIS), managed by the DWR, lists the federally endangered and state endangered Atlantic sturgeon (Acipenser oxyrinchus), the federally threatened and state threatened loggerhead sea turtle (Caretta caretta), and the state threatened peregrine falcon (Falco peregrinus) as confirmed within 2 miles of the project boundary. The federally threatened and state threatened northeastern beach tiger beetle (Cicindela dorsalis) is listed as having potential habitat within 2 miles of the project boundary. Refer to Appendix A: Detailed Species Information for additional descriptions of each species.

The Center for Conservation Biology's Bald Eagle Nest Locator was used to identify bald eagle nests in the vicinity of the project. No bald eagle nests are listed within the vicinity of the project.

Adjacent Land Use Photos

Structural Conditions Summary

Dock Description

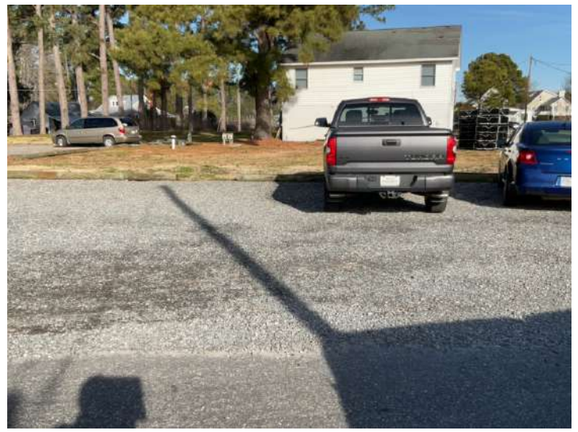
The existing structure is a fixed timber pier that is approximately 100 feet long and 6 feet wide. The pier extends straight out from shore and provides side-tie dockage.

Existing Conditions

Access to the fixed timber pier is from a grass lawn area and the ground near the pier has eroded away so that the pier access is no longer connected to the ground. Timber boards have been temporarily placed to prevent tripping, but the access is not ADA compliant. The deck elevation is level with the existing uplands and then slopes down to a lower section of pier. The elevation of the pier appears to keep the substructure from regularly encountering tide levels because there is no discoloration of pile caps. Deck boards are starting to show minor to moderate weathering. Stringers and caps are showing signs of weathering, but no visible cracks or holes were observed. Cap hardware shows minor signs of corrosion. cross-bracing towards the waterward end of the pier has decayed and has holes in the wood. The hardware attaching the cross-bracing is moderately to severely corroded.

Recommendations

The pier is showing age but appears to only have minor issues. Repairing cross bracing will provide strength back to the structure. Replace the hardware pieces that are showing moderate corrosion and stabilizing the area at the entrance to the pier will prevent further erosion at the pier connection.



Existing Conditions

Dock Element	Good Condition	Minor Issues	Moderate Issues	Major Issues	Severe Issues
Remaining Lifespan*	15-25 Years	10-15 years	5-10 Years	1-5 Years	0-1 Year
Decking			✓		
Stringers		✓			
Girders		✓			
Piles		✓			
Cross-Bracing				✓	
Hardware			✓		

**Dock conditons based on visual observations. Remaining lifespan are approximate and based on typical expected weathering.*

Landside Photos

Waterside Photos

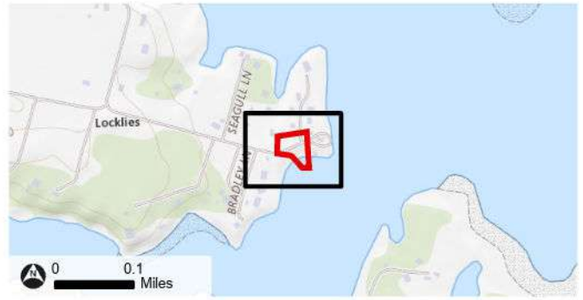
Figure 32: Locklies Landing (MDX-08) | Middlesex County, Virginia | Parcels

Source: VGIN/VBMP Most Recent Ortho-imagery

Path: \\vhb.com\gis\proj\Williamsburg\35120.00 Mid-Pen_Multimodal_Water\Project\MMPDC_Shoreline_Conditions_MASTER.aprx (User: mhead, Date: 8/15/2024)

Parcel Tax Map ID	Owner Name	Land Use
30E-2-4	MACKIMMIE DANA ROBERT & KARLA S R/S	Residential
30E-2-5	BALL KIMBERLE CARPENTER LIVNG TRUSTTRUSTEE-KIMBERLE C BALL	Residential
30E-2-1	PIERCE FAMILY JOINT REV TRUST (THE)PIERCE J ROLAND TRUSTEE	Residential
30E-2-6	MILLER ELVIN B & JUNE G	Residential
30E-2-7	BECK DAVID RANDOLPH	Residential
30E-2-8	MILLER DELORES D	Residential
30-71	PIERCE FAMILY JOINT REV TRUST (THE)PIERCE J ROLAND ETAL TTEES	Residential
30E-1-8A	COUNTY OF MIDDLESEX	Residential
30E-1-8	None listed	Residential
30E-1-1	CCC CAPTIAL LLC	Residential
30E-1-2	CCC CAPITAL LLC	Residential
30E-1-7	FEDERAL NATIONAL MTG ASSOCIATION	Residential
30E-1-6A	CCC CAPITAL LLC	Residential
30E-1-2A	FEDERAL NATIONAL MTG ASSOCIATION	Residential
30-74	CCC CAPITAL LLC	Residential
30-72	DIDLAKE WILLIAM T & CAROL M	Residential
30E-1-2B	ANAS JAMES K & CATHARINE S REVOCABLE DECLARATION OF TRUSTS	Residential
30-78	FETTEROLF ESTATE OF BENNIE C/O OYSTER WINDOWS LLC	Residential
30E-1-3	LOCK HAVEN TRUST CAROLYN L GREENFIELD TRUSTEE	Residential
30-73	JOHNSON DONALD R & MARGARET F R/S	Residential
30-75	GILMAN PAUL E & LISA M R/S	Residential
30-76	MALONE CAROLYN M	Residential
30E-1-6	None listed	Residential

Figure 32: Locklies Landing (MDX-08) | Middlesex County, Virginia | Natural Resources Analysis



Legend

- Site Boundary
- Resource Protection Area (100' buffer)

Source: VGIN/VBMP Most Recent Ortho-imagery

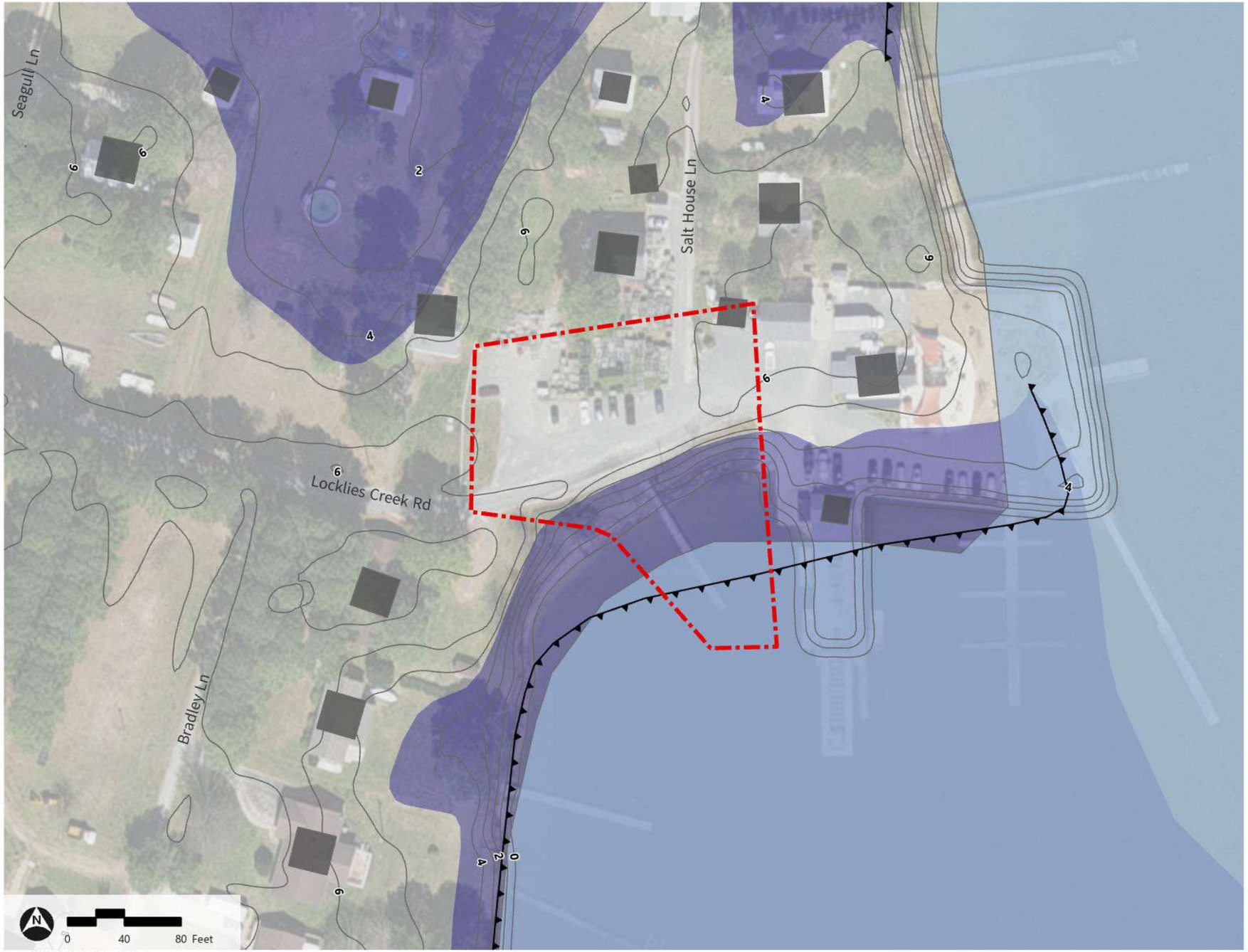
Figure 32: Locklies Landing (MDX-08) | Middlesex County, Virginia | Conservation and Wildlife Analysis

Source: VGIN/VBMP Most Recent Ortho-imagery

Legend

- Site Boundary
- Private Oyster Leases
- Shellfish Condemnation Zone

Figure 32: Locklies Landing (MDX-08) | Middlesex County, Virginia | Coastal Resilience - Floodplain



Legend

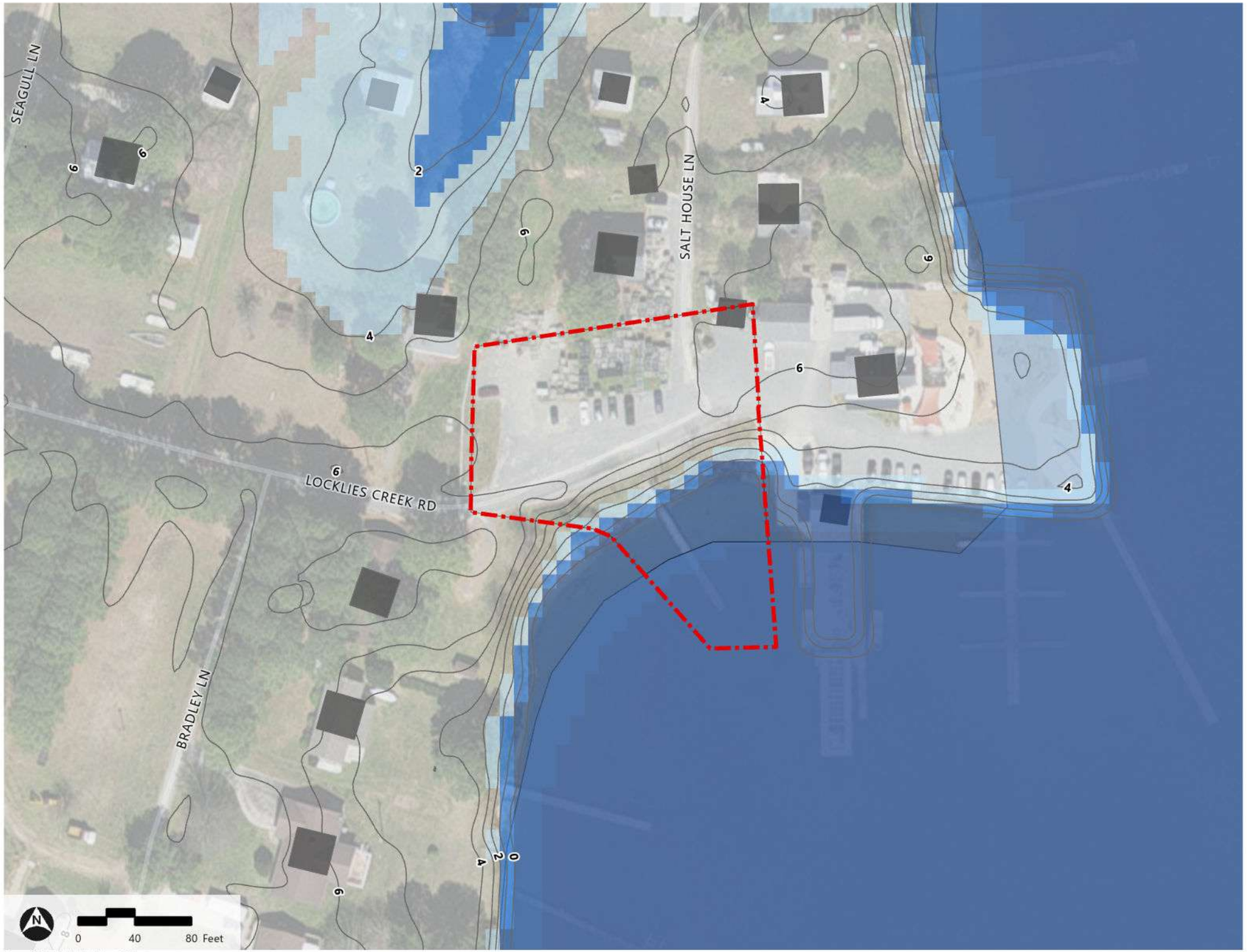
- Site Boundary
- Limit of Moderate Wave Action
- Contours 1ft
- Waterbody
- Building Footprints

FEMA Flood Hazard

- Flood Zone AE

Source: VGIN/VBMP Most Recent Ortho-imagery

Figure 32: Locklies Landing (MDX-08) | Middlesex County, Virginia | Coastal Resilience - Sea Level Rise



Legend

- Contours 1ft
- Waterbody
- Building Footprints

SLR Risk

- No Risk

Projected Sea Level

- 2020
- 2040
- 2060
- 2080

Source: VGIN/VBMP Most Recent Ortho-imagery

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Perrin Wharf	
Project Owner (Select One)*	
X	PDC
	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
llawrence@mppdc.com	
Project Partners*	
None	
Project Phase (Select One)*	
X	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
No	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
***Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP.*	
The Perrin Wharf project, owned by the Middle Peninsula Public Access Authority, aims to rejuvenate the deteriorating dock, stairs, and parking lot erosion, transforming it into a vibrant working waterfront. By addressing derelict vessels and infrastructure decay, the project will not only ensure safety but also enhance the area's functionality, aligning with the Coastal Resilience Master Plan's goals of sustainable coastal management and improved public access. add coastal resilience language	
Scale of Benefits (Select One)*	
	Individual Lot: The project is expected to only benefit an individual lot.
X	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*	
Gloucester, VA Perrin Wharf No 911 Address, Parcel Id 52-459 Lat Long (37.2685154°, -76.4245943°)	
Coastal Hazard Addressed (Select One or More)*	
X	Tidal Flooding – flooding caused by daily or extreme high tides
X	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
X	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
X	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other
Climate Standards (Select One or More)*	
	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
	The project considers increased rainfall
	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed

Project Subtype (Select One or More) - See Appendix G for more information on subtypes https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *	
Stormwater Drainage Improvements, Green Infrastructure, living shoreline	
Total Implementation Cost *	
Unknown at this phase	
Project Identifier *	
None	
Owner Classification *	
	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization Organization
	Trust
X	Other - business, private landowner, etc. MPPAA
Estimated Start Date *	
NA	
Estimated End Date *	
na	
Information Link *	
NA	
Design Life *	
NA	
Planning, Engineering, and Permitting Cost *	
NA	
Construction Implementation Cost *	
NA	
Average Annual Operations & Maintenance Cost *	
NA	
Permitting Status *	
NA	
Funding - Cost-Share Requirements *	
NA	
Funding - Application Costs *	
NA	
***Additional Information -** Include dialogues w/ site manager & users here *	

Dock Description
The Perrin Wharf Pier is approximately 320 feet long and 8 feet wide. It is constructed of timber and configured in a straight line providing side tide dockage and 8 Mediterranean mooring slips on the east side of the pier.
Existing Conditions
The ground around the access to the dock has eroded around the structure. The steps to access the dock have become dilapidated
and are unsafe to climb. High tides each day tend to restrict the ability to access the end of the dock with a vehicle for loading and unloading. The existing dock surface elevation is approximately +3'
NAVD88. The deck boards have been severely weathered. Attempts to replace boards were observed but several replacement areas left large gaps between boards. The stringer layout appears to originally have been four boards equally spaced. This stringer layout starts at the shore and continues to approximately the middle of the pier where it appears the middle-left stringers have been removed leaving a large gap between stringers. Finger piers are missing or missing the majority of deck boards. The girders appear to only show minor defects and the hardware attaching the caps is showing minor to moderate corrosion. The piles from shore to about midway are newer and in fair condition
with minor issues, but the remainder of the piles show signs of moderate weathering and have a moderate level of marine growth. Several derelict boats are in the mooring slips and another was observed directly across on the west side of the dock. The table provided indicates existing conditions of the components of the dock structure based on visual inspection only, and typical expected remaining lifespan. Severe storm events, sea level rise, or other unknown factors may accelerate the deterioration of the dock.
Recommendations
The girders, stringers, and decking should be removed and replaced to bring the deck surface up to at least +4' NAVD88 in order to account for exepcted sea level rise over the next 30 years. The typical lifespan of a timber dock is 20-30 years so this rise will prevent the substructure from contacting water during high tides in the future. The waterward piles need a tier 2 inspection to see if they need to be replaced and the access area should be replaced to prevent tripping hazards. A floating dock may be considered to
aid in loading and offloading from waterman vessels.

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*

Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*

Parcel #29758 .075 acres

Owner*

MPPAA

Adjacent Property Owners, Parcel Size, and Use/zoning

Commercial working waterfront, single family residential

Approaching Land Use Character/Characteristics

Residential low lying

Known Easements*

Land Features Inventory

Cover Type and Gerneral Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*

Parking (# of spaces, restrictions)

Staging/Offloading Areas for Commercial/Industrial Use

Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)

Critical Dimensions (road width, etc.)*

Utilities Present On Site (electric, communications, sewer, water, stormwater)*

Wireless Internet / Cell Service Availability

Signage (wayfinding or regulatory)

Drainage (ditches, upland erosion)*

Evidence of Activity (recreational use, commercial use, trash dumping)

Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)

Site Environmental Information

Wetlands (from National Wetlands Inventory (NWI))

RPA (100' Buffer from Wetlands)

RMA (500' Buffer from Wetlands)

Floodplain (100 year and 500 year FEMA)*

Topography *

Rare, Threatened, Endandgered Species Potential On Site (Flora and Fauna)

Coastal Flood Vulnerability Mapping

Intermediate-high Sea Level Rise Mapping*

Coastal Erosion Mapping*

Date of Mean Low Water Inundation of Site or Access to Site*

Road Network Evaluations

Distance to Nearest Collector / Arterial Road*

Add Any Planned or Built Multi-Modal Network
Waterside
Prevailing wind direction
In-Water Features
Water Depths (if known)*
Tidal Range*
Distance to Channel and Distance to Channel Markers*
Fetch*
Submerged Aquatic Vegetation (SAV) Mapping
Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)
Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.
Type and Functionality*
Materials*
Approximate Width and Length*
Approximate Elevation*
Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*
Piles (condition, diameter, etc.)*
Pile Cap*
Stringers*
Deck Boards*
Railings*
Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*
Accessories (Cleats, Ladders, Ramps, Etc.)*
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
1937 Historic Shoreline Location (provided by VIMS) *
If No Stabilization Condition*
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
Existing Stabilization Condition*
Revetment/Bulkhead/Living Shoreline/Other*
Marsh Condition Waterward of Shoreline Stabilization*
Materials*
Other Noticed Issues From the Shoreline Waterward

GLO-15 Perrin Wharf

Gloucester County | Perrin River

COMMERCIAL & RECREATIONAL

OVERVIEW

Perrin Wharf is a public landing located on the Perrin River. The site provides quick access by boat to the lower York River and Chesapeake Bay. Perrin Wharf has a history of commercial waterman use for mooring and offloading, and some local recreational use. The site is currently in poor condition and in need of improvements to the parking area and dock.

SITE INFORMATION

Parcel ID 52-459	**Size of Site** 0.075 acre	**Body of Water** Perrin River
Facility Name Perrin Wharf		**Water Depth** 4'+
Owner(s) MPCBPAA		**Adjacent Land Use** Commercial, Residential
Physical Address N/A		**Coordinates** (37.2685154°, -76.4245943°)

Access, Parking, Circulation

- Paved access road in good condition.
- Adequate ingress and egress for personal vehicles. Delivery trucks and trucks with trailers have difficulty maneuvering.
- Unmarked parking area of 3-4 spaces.
- No ADA accessibility provided.
- Gravel loading/unloading area at the dock.

Environmental

- Fringe salt marsh in good condition.
- Landside erosion from stormwater runoff.
- Minor trash and debris dumping on site.
- Derelict boats in water.

Infrastructure

Dock

- 320' L x 8'W timber dock in poor condition.
- 8 Mooring slips .

Boat Ramp

- Unimproved gravel boat ramp on site.

Utilities

- Light on utility pole at beginning of dock.
- No utilities available for public use.

Nearby Cultural Resources

Architectural

Archaeological

Equity Evaluation

HIGH IMPACT

Increased Jobs

Equity Emphasis Area

Justice 40 and/or 1 mile from a major transportation route.

Site Repair Costs

$$$$$

$500,000-$750,000

Nearby Natural Resources

Mabees Salamander

N/A

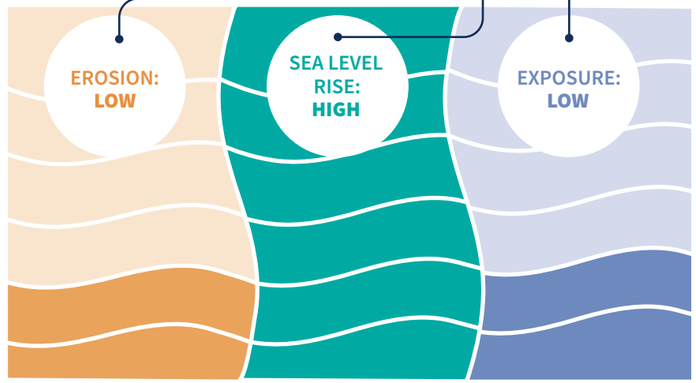
Loggerhead Sea Turtle

Eastern Black Rail

Henslows Sparrow

Atlantic Sturgeon

Coastal Vulnerability



Vulnerability to coastal erosion.

Vulnerability to Sea Level Rise and Storm Surge.

Shoreline exposure.

Site Condition Assessment

Cultural Resources Summary

According to the Virginia Department of Historic Resources (DHR) online Virginia Cultural Resources Information System (V-CRIS), one architectural resource (DHR ID: 036-5281) was identified within the vicinity of Perrin Wharf (GLO-15). No archaeological resources eligible for listing in the National Register are in the vicinity of the project.

DHR ID: 036-5281 is the Perrin Creek Public Landing and is the subject of the proposed project. This resource was surveyed in December 2021, but was not evaluated for eligibility for listing in the National Register of Historic Places (NRHP). The public landing was constructed prior to 1963 and served as an important resource of the African American Watermen of Virginia. Further survey of this resource may be required to fully evaluate its eligibility for listing in the NRHP to determine the project's potential to affect historic resources.

Natural Resources Summary

Two online search portals managed by the U.S. Fish and Wildlife Service (USFWS) and the Virginia Department of Wildlife Resources (VDWR) were used to determine if any state or federally listed threatened or endangered species are known to occur within the vicinity of the project site The Information of Planning and Consultation (IPaC), managed by the USFWS, lists the federally endangered and state threatened northern long-eared bat (Myotis septentrionalis), the federally proposed endangered and state endangered tri-colored bat (Perimyotis subflavus), and the candidate species monarch butterfly (Danaus plexippus) as species that are known or expected to be near Perrin Wharf (GLO-15). The Virginia Fish and Wildlife Information System (VaFWIS), managed by the VDWR, lists the federally endangered and state endangered Atlantic sturgeon (Acipenser oxyrinchus) and the federally threatened and state threatened loggerhead sea turtle (Caretta caretta) as confirmed within 2 miles of the project boundary. The federally threatened and state endangered eastern black rail (Laterallus jamaicensis), the state threatened Henslow's sparrow (Ammodramus henslowii), and the state threatened Mabee's salamander (Ambystoma mabeei) are listed as having potential habitat within 2 miles of the site. Refer to Appendix A: Detailed Species Information for more information.

The Center for Conservation Biology's Bald Eagle Nest Locator was used to identify bald eagle nests in the vicinity of the project site. No bald eagle nests are listed within the vicinity of the site.

Existing Conditions Photos

Existing Conditions Photos

Structural Conditions Summary

Dock Description

The Perrin Wharf Pier is approximately 320 feet long and 8 feet wide. It is constructed of timber and configured in a straight line providing side tide dockage and 8 Mediterranean mooring slips on the east side of the pier.

Existing Conditions

The ground around the access to the dock has eroded around the structure. The steps to access the dock have become dilapidated and are unsafe to climb. High tides each day tend to restrict the ability to access the end of the dock with a vehicle for loading and unloading. The existing dock surface elevation is approximately +3' NAVD88.

The deck boards have been severely weathered. Attempts to replace boards were observed but several replacement areas left large gaps between boards. The stringer layout appears to originally have been four boards equally spaced. This stringer layout starts at the shore and continues to approximately the middle of the pier where it appears the middle-left stringers have been removed leaving a large gap between stringers. Finger piers are missing or missing the majority of deck boards.

The girders appear to only show minor defects and the hardware attaching the caps is showing minor to moderate corrosion. The piles from shore to about midway are newer and in fair condition with minor issues, but the remainder of the piles show signs of moderate weathering and have a moderate level of marine growth.

Several derelict boats are in the mooring slips and another was observed directly across on the west side of the dock.

The table provided indicates existing conditions of the components of the dock structure based on visual inspection only, and typical expected remaining lifespan. Severe storm events, sea level rise, or other unknown factors may accelerate the deterioration of the dock.

Recommendations

The girders, stringers, and decking should be removed and replaced to bring the deck surface up to at least +4' NAVD88 in order to account for exepcted sea level rise over the next 30 years. The typical lifespan of a timber dock is 20-30 years so this rise will prevent the substructure from contacting water during high tides in the future. The waterward piles need a tier 2 inspection to see if they need to be replaced and the access area should be replaced to prevent tripping hazards. A floating dock may be considered to aid in loading and offloading from waterman vessels.

Existing Conditions

Dock Element	Good Condition	Minor Issues	Moderate Issues	Major Issues	Severe Issues
Remaining Lifespan*	**15-25 Years**	**10-15 years**	**5-10 Years**	**1-5 Years**	**0-1 Year**
Decking					✓
Stringers			✓		
Girders		✓			
Piles			✓		
Cross-Bracing		✓			
Hardware		✓			

**Dock conditons based on visual observations. Remaining lifespan are approximate and based on typical expected weathering.*

Dock Existing Conditions Photos

Figure 43: Perrin Wharf (GLO-15) | Gloucester County, Virginia | Parcels

Parcel Tax Map ID	Owner Name	Land Use
0682-77-5333		Residential
0682-78-4337		Residential
0682-77-3952		Residential
0682-68-9107	MUSHINSKY, PETER	Residential
0682-78-0280		Residential
0682-68-4075	MURRAY L NIXON FISHERY INC	Residential
0682-67-7923	MURRAY L NIXON FISHERY INC	Residential
0682-68-7144	MURRAY L NIXON FISHERY INC	Residential
0682-67-3768		Residential
0682-68-2076		Residential
0682-67-7977	PUBLIC LANDING	Residential
0682-67-7929	MURRAY L NIXON FISHERY INC	Residential

Path: \\vhb.com\gis\proj\Williamsburg\35120.00 Mid-Pen_Multimodal_Water Project\MMPDC_Shoreline_Conditions_MASTER.aprx (User: mhead, Date: 8/15/2024)

Source: VGIN/VBMP Most Recent Ortho-imagery

Figure 43: Perrin Wharf (GLO-15) | Gloucester County, Virginia | Natural Resources Analysis

Legend

- Site Boundary
- Resource Protection Area (100' buffer)
- Estuarine and Marine Wetland

Source: VGIN/VBMP Most Recent Ortho-imagery

Path: \\vhb.com\gis\proj\Williamsburg\35120.00 Mid-Pen_Multimodal_Water\Project\MMPDC_Shoreline_Conditions_MASTER.aprx (User: mreed, Date: 8/19/2024)

Figure 43: Perrin Wharf (GLO-15) | Gloucester County, Virginia | Conservation and Wildlife Analysis

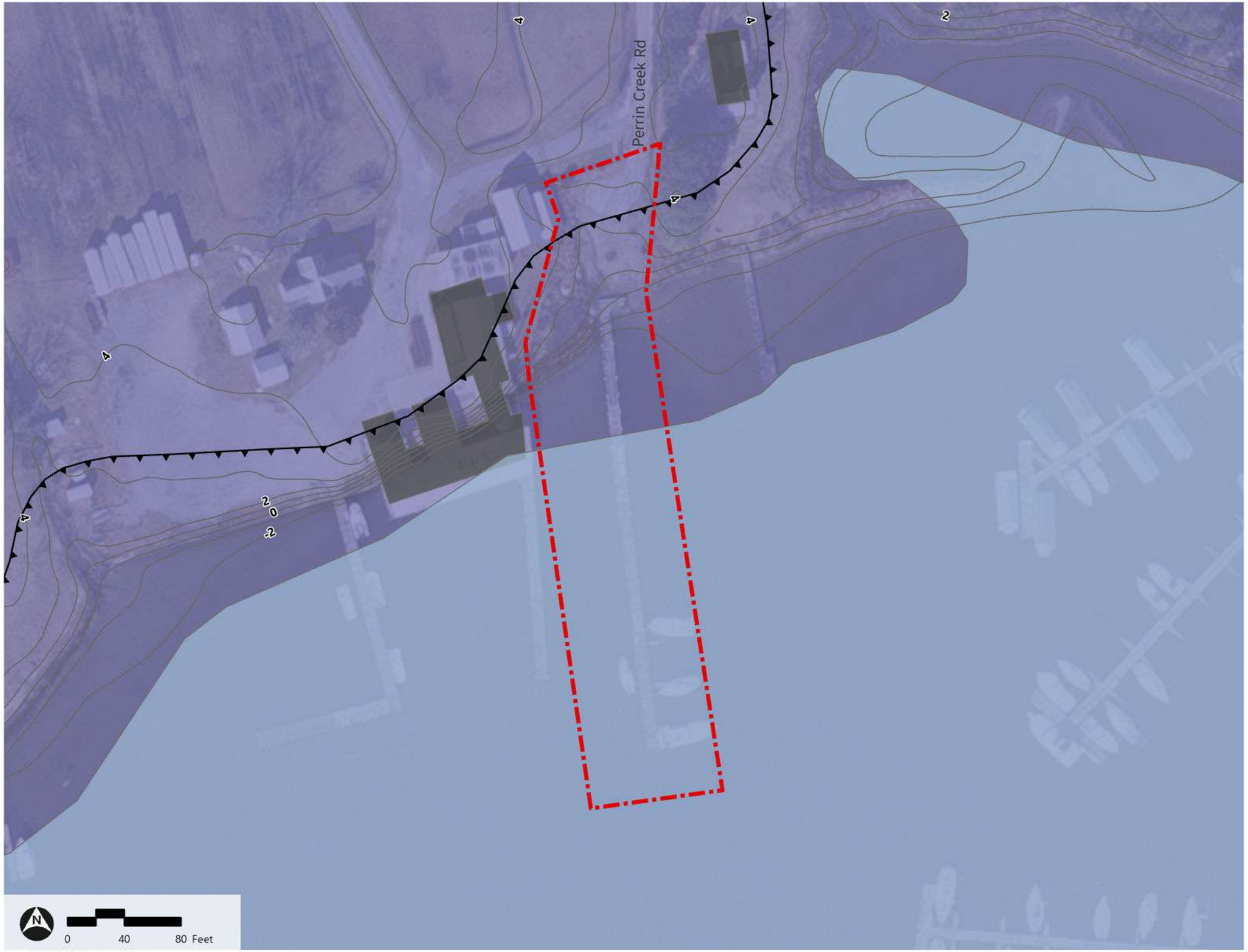
Legend

- Site Boundary
- Shellfish Condemnation Zone

Source: VGIN/VBMP Most Recent Ortho-imagery

Path: \\vhb.com\gis\proj\Williamsburg\35120.00 Mid-Pen_Multimodal_WaterProject\MMPDC_Shoreline_Conditions_MASTER.aprx (User: mreed, Date: 8/13/2024)

Figure 43: Perrin Wharf (GLO-15) | Gloucester County, Virginia | Coastal Resilience - Floodplain



Source: VGIN/VBMP Most Recent Ortho-imagery

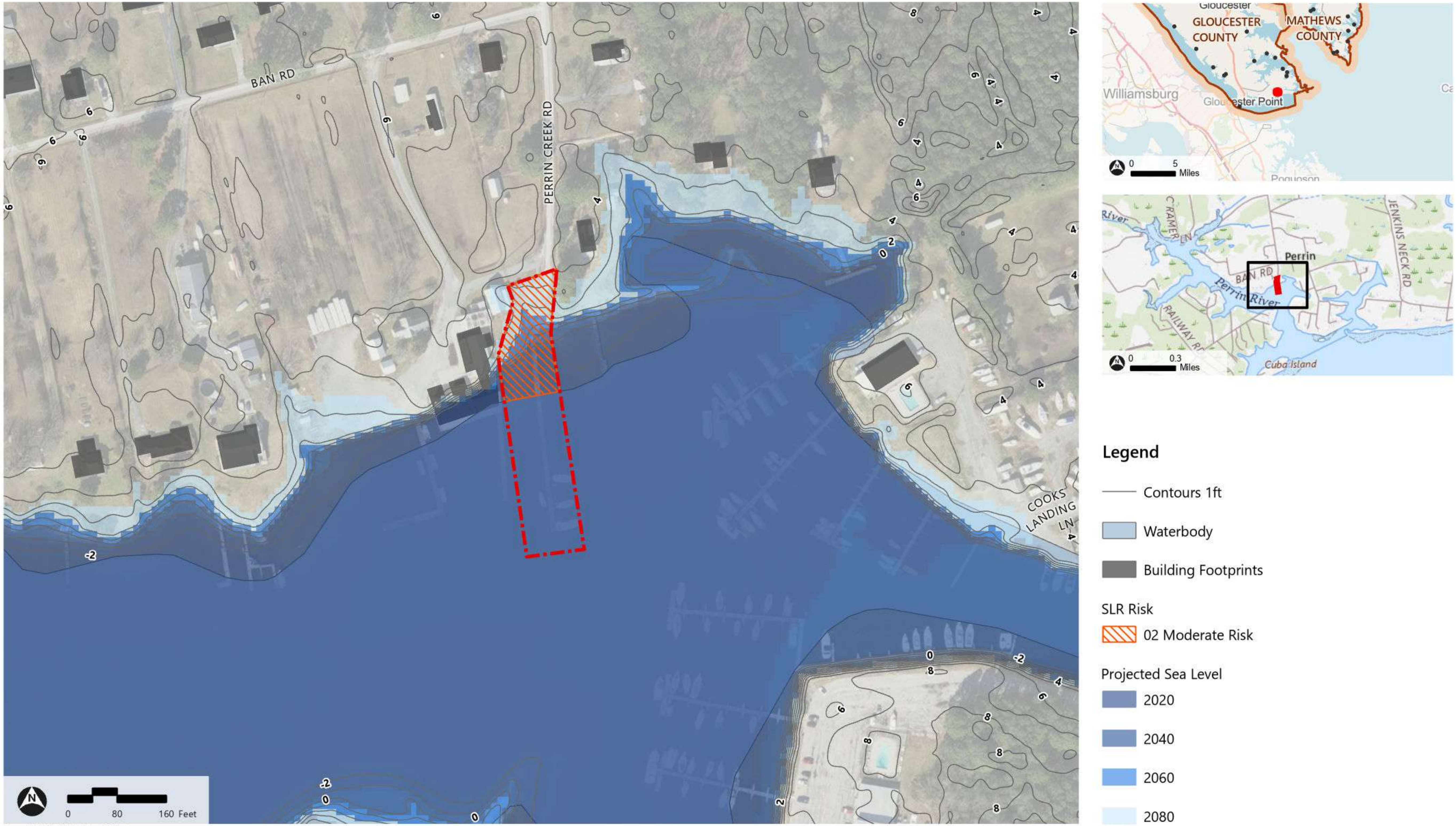
Legend

- Site Boundary
- Limit of Moderate Wave Action
- Contours 1ft
- Waterbody
- Building Footprints

FEMA Flood Hazard

- Flood Zone AE

Figure 43: Perrin Wharf (GLO-15) | Gloucester County, Virginia | Coastal Resilience - Sea Level Rise



Source: VGIN/VBMP Most Recent Ortho-imagery

Working Waterfront Assessment

The section below is the minimum standard needed by CZM staff. Ensure this portion is complete and accurate. All fields are required in this first section.

Submitter Name	
Virginia CZM	
Submitter contact Info (email)	
jefferson.flood@deq.virginia.gov	
Project Name*	
Williams Landing	
Project Owner (Select One)*	
X	PDC
	Locality
	Tribe
	Private company name
Project Owner Contact Info (email)*	
llawrence@mppdc.com	
Project Partners*	
None	
Project Phase (Select One)*	
X	Proposed - the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan, etc.), but has not yet been formally initiated or budgeted.
	Programmed – the project has been identified as a need through a formal planning process that addresses flood resilience (e.g. Resilience Plan, Comprehensive Plan, Hazard Mitigation Plan), and has been budgeted for near-term or future progression.
	Site Assessment and Preliminary Design - Projects in this phase involve activities required to lay the groundwork for successful implementation. These activities may include evaluation of potential project sites, assessing alternatives, assessing project benefits/adverse impacts, identifying and addressing barriers to moving to the final design and implementation phases, gathering baseline data, conducting cost-benefit analyses, and selectin the most appropriate solution for a site, and preparing preliminary project designs that allow a community to make a "go/no-go" decision on the project.
	Under Construction or Implementation - Projects in this phase involve active implementation.
	Final Design and Permitting - Projects in this phase involve advancing conceptual or preliminary designs into final designs and engineering plans, developing detailed cost estimates, engaging the community, preparing permit applications, and other related tasks to position projects for implementation.
	Complete – Projects in this phase have completed construction and involve monitoring efforts to track project success.
Related Initiative	
No	Is the project related to a capacity building and planning need that you submitted / will submit on the Capacity Building and Planning data call? Select Yes or No
***Description -** Please provide a brief description of the project. This should be two sentences long in most cases. The first sentence should clearly state the scope and goals of the project. The second sentence should state the expected outcome from the project and its relevance to the CRMP.*	
Williams Landing is a public landing located on Timberneck Creek. The site provides quick access by boat to the York River. The site has a history of commercial waterman use for mooring and offloading, and some local recreational use. The site is currently in fair condition and the dock is in need of repair.	
Scale of Benefits (Select One)*	
	Individual Lot: The project is expected to only benefit an individual lot.
X	Sub-watershed: The project is expected to benefit an area that is larger than an individual lot, but smaller than a HUC12 watershed.
	Watershed: The project is expected to benefit a HUC10 watershed area.
	Multi-jurisdictional: The project is expected to benefit a HUC8 watershed area.
Geographic Location (Select One or More) - Locality in which the project is located. Please provide address.*	
Gloucester, VA Perrin Wharf Look up 911 address	
Coastal Hazard Addressed (Select One or More)*	
X	Tidal Flooding – flooding caused by daily or extreme high tides
X	Storm Surge Flooding – flooding caused by coastal storms including nor'easters and hurricanes
X	Riverine/Fluvial Flooding – flooding caused by overflowing of rivers and streams
	Stormwater/Pluvial Flooding – flooding caused by lack of drainage or overflowing drainage systems due to intense rainfall
X	Land Degradation - loss or displacement of land, vegetation, or sediment along the coastline
	Groundwater Impacts – changes in the boundary between freshwater and saltwater or rising water tables in response to sea level rise
	Other
Climate Standards (Select One or More)*	
	The project considers the SLR Scenario in alignment with the CRMP (defined as the NOAA 2017 Intermediate-High sea level rise projection)
	Local Standards that are higher and more risk-averse than the CRMP SLR Scenario
	Local Standards that are lower and less risk-averse than the CRMP SLR Scenario
	The project considers increased rainfall
	The project does not consider future sea level rise or rainfall conditions
	Other Coastal Hazards Addressed

Project Subtype (Select One or More) - See Appendix G for more information on subtypes
https://www.dcr.virginia.gov/crmp/document/Appendix-G-Project-and-Capacity-Building-and-Planning-Needs-Schema-Suitability-Matrix.pdf *****

Stormwater Drainage Improvements, Green Infrastructure, living shoreline

Total Implementation Cost *

Unknown at this phase

Project Identifier *

Owner Classification *

X	Commonwealth of Virginia
	Federal and/or State Recognized Tribe
	Locality
	Planning District Commission/Regional Commission
	Federal - Department of Defense
	Federal - Non-Department of Defense
	Non-Profit Organization
	Non-Governmental Organization Organization
	Trust
	Other - business, private landowner, etc.

Estimated Start Date *

NA

Estimated End Date *

na

Information Link *

NA

Design Life *

NA

Planning, Engineering, and Permitting Cost *

NA

Construction Implementation Cost *

NA

Average Annual Operations & Maintenance Cost *

NA

Permitting Status *

NA

Funding - Cost-Share Requirements *

NA

Funding - Application Costs *

NA

Additional Information -** Include dialogues w/ site manager & users here **

Dock Description The fixed timber pier is a Y-shape. It has a raised access area for loading and unloading of trucks and the Y-head is approximately 180 feet long and 6 feet wide. Existing Conditions The shoreline at the site is open along one side of the pier to potentially allow launching small vessels and the other side has a series of marsh grasses. The access to the fixed timber pier is not ADA compliant and has approximately a 1 footstep up to assist in loading and unloading trucks. The elevation of the deck appears to keep the pile caps out of the water during most tide levels. The deck boards are moderately weathering as are the stringers. Piles appear severely deteriorated and all mooring at the site is by sidetie dockage. Recommendations The dock is showing its age, and the piles appear to be reaching the end of their useful life. A further structural inspection is required to determine the remaining life of the structure or any imminent safety hazards.

Site Review

The following fields offer more detail, going beyond the basics required by CZM. Required fields are indicated by an asterisk, if a field has an asterisk and it is unknown please note that in the response field.

Landside Property Information

Property Lines (Property Line Identification Image)*

Parcel Size (include each parcel # and acreage) (Use and Zoning for private sites)*
Owner*
Adjacent Property Owners, Parcel Size, and Use/zoning
Approaching Land Use Character/Characteristics
Known Easements*
Land Features Inventory
Cover Type and Gerneral Condition (paved, gravel, dirt, forested, lawn,etc.) shown on aerial image*
Parking (# of spaces, restrictions)
Staging/Offloading Areas for Commercial/Industrial Use
Vehicle Turning Movements (show minimum 90' diameter circle overlaid on site for scale)
Critical Dimensions (road width, etc.)*
Utilities Present On Site (electric, communications, sewer, water, stormwater)*
Wireless Internet / Cell Service Availability
Signage (wayfinding or regulatory)
Drainage (ditches, upland erosion)*
Evidence of Activity (recreational use, commercial use, trash dumping)
Other (may include trash cans, protable toilets, furnishings, buildings or temporary structures present, etc.)
Site Environmental Information
Wetlands (from National Wetlands Inventory (NWI))
RPA (100' Buffer from Wetlands)
RMA (500' Buffer from Wetlands)

Floodplain (100 year and 500 year FEMA)*
Topography *
Rare, Threatened, Endandgered Species Potential On Site (Flora and Fauna)
Coastal Flood Vulnerability Mapping
Intermediate-high Sea Level Rise Mapping*
Coastal Erosion Mapping*
Date of Mean Low Water Inundation of Site or Access to Site*
Road Network Evaluations
Distance to Nearest Collector / Arterial Road*
Add Any Planned or Built Multi-Modal Network
Waterside
Prevailing wind direction
In-Water Features
Water Depths (if known)*
Tidal Range*
Distance to Channel and Distance to Channel Markers*
Fetch*
Submerged Aquatic Vegetation (SAV) Mapping

Existing Structures (Dock, Boat Ramp, Bulkhead, Shoreline, Etc.)
Majority of these will only be able to be answered with a site visit, only a desktop review is required. Answer if your able.
Type and Functionality*
Materials*
Approximate Width and Length*
Approximate Elevation*
Condition, Repairs Needed, Estimated Remaining Lifespan for the Components of Structure*
Piles (condition, diameter, etc.)*
Pile Cap*
Stringers*
Deck Boards*
Railings*
Hardware (bolts fastening stringers, nails/srews holding deckboards down, etc.)*
Accessories (Cleats, Ladders, Ramps, Etc.)*
Shoreline Type and Condition (revetment, living shoreline, eroding shoreline, beach, marsh, etc.)*
1937 Historic Shoreline Location (provided by VIMS) *
If No Stabilization Condition*
Erosion Condition at Water's Edge: Scarp, Marsh, or Beach*
Existing Stabilization Condition*
Revetment/Bulkhead/Living Shoreline/Other*
Marsh Condition Waterward of Shoreline Stabilization*
Materials*
Other Noticed Issues From the Shoreline Waterward

GLO-16 Timberneck/Williams Landing

Gloucester County | Timberneck Creek

COMMERCIAL & RECREATIONAL

OVERVIEW

Williams Landing is a public landing located on Timberneck Creek. The site provides quick access by boat to the York River. The site has a history of commercial waterman use for mooring and offloading, and some local recreational use. The site is currently in fair condition and the dock is in need of repair.

SITE INFORMATION

Parcel ID 45-80A	**Size of Site** 0.211 acre	**Body of Water** Timberneck Creek
Facility Name Williams Landing		**Water Depth** 1’ - 4’
Owner(s) VDOT, Gloucester County		**Adjacent Land Use** Residential
Physical Address N/A		**Coordinates** (37.2996471°, -76.5309422°)

Access, Parking, Circulation

- Wide paved access road in good condition.
- Site ingress and egress for in good condition for commercial and recreation use.
- Paved turnaround area in poor condition.
- Small gravel parking area in acceptable condition.
- Limited upland available for site improvements.

Environmental

- Marsh land located north of dock in good condition.

Infrastructure

Dock

- Large existing dock structure in need of maintenance. Rotting piles noted.

Boat Ramp

- Unimproved gravel boat ramp in poor condition. Evidence of heavy use.

Utilities

- Electrical utilities observed on site.

Nearby Cultural Resources

Architectural

Archaeological

Equity Evaluation

HIGH IMPACT

Increased Jobs

Equity Emphasis Area

Justice 40 and/or 1 mile from a major transportation route.

Site Repair Costs

$$$$$

$500,000-$750,000

Nearby Natural Resources

Mabees Salamander

N/A

N/A

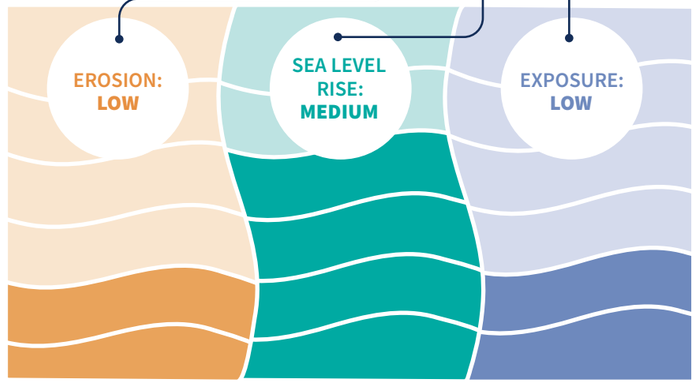
Eastern Black Rail

Henslows Sparrow

Atlantic Sturgeon

Coastal Vulnerability

OVERALL VULNERABILITY: **LOW**



Vulnerability to coastal erosion.

Vulnerability to Sea Level Rise and Storm Surge.

Shoreline exposure.

Site Condition Assessment

Cultural Resources Summary

According to the Virginia Department of Historic Resources (DHR) online Virginia Cultural Resources Information System (V-CRIS), no properties eligible for listing in the National Register are in the vicinity of Timberneck/Williams Landing (GLO-16).

Natural Resources Summary

Two online search portals managed by the U.S. Fish and Wildlife Service (USFWS) and the Virginia Department of Wildlife Resources (VDWR) were used to determine if any state or federally listed threatened or endangered species are known to occur within the vicinity of the project site. The Information of Planning and Consultation (IPaC), managed by the USFWS, lists the federally endangered and state threatened northern long-eared bat (Myotis septentrionalis), the federally proposed endangered and state endangered tri-colored bat (Perimyotis subflavus), the federally threatened and state endangered eastern black rail (Laterallus jamaicensis), and the candidate species monarch butterfly (Danaus plexippus) as species that are known or expected to be near Timberneck/Williams Landing (GLO-16). The Virginia Fish and Wildlife Information System (VaFWIS), managed by the VDWR, lists the federally endangered and state endangered Atlantic sturgeon (Acipenser oxyrinchus) and the state threatened Mabee's salamander (Ambystoma mabeei) as confirmed within 2 miles of the project boundary. The federally threatened and state endangered eastern black rail (Laterallus jamaicensis) and the state threatened Henslow's sparrow (Ammodramus henslowii) are listed as having potential habitat within 2 miles of the project boundary. Refer to Appendix A: Detailed Species Information for additional descriptions of each species.

The Center for Conservation Biology's Bald Eagle Nest Locator was used to identify bald eagle nests in the vicinity of the project site. No bald eagle nests are listed within the vicinity of the site.

Adjacent Land Use Photos

Landside Photos

Structural Conditions Summary

Dock Description

The fixed timber pier is a Y-shape. It has a raised access area for loading and unloading of trucks and the Y-head is approximately 180 feet long and 6 feet wide.

Existing Conditions

The shoreline at the site is open along one side of the pier to potentially allow launching small vessels and the other side has a series of marsh grasses. The access to the fixed timber pier is not ADA compliant and has approximately a 1 footstep up to assist in loading and unloading trucks. The elevation of the deck appears to keep the pile caps out of the water during most tide levels. The deck boards are moderately weathering as are the stringers. Piles appear severely deteriorated and all mooring at the site is by side-tie dockage.

Recommendations

The dock is showing its age, and the piles appear to be reaching the end of their useful life. A further structural inspection is required to determine the remaining life of the structure or any imminent safety hazards.

Dock Existing Conditions Photos

Existing Conditions

Dock Element	Good Condition	Minor Issues	Moderate Issues	Major Issues	Severe Issues
Remaining Lifespan*	15-25 Years	10-15 years	5-10 Years	1-5 Years	0-1 Year
Decking			✓		
Stringers			✓		
Girders			✓		
Piles					✓
Cross-Bracing			✓		
Hardware			✓		

**Dock conditons based on visual observations. Remaining lifespan are approximate and based on typical expected weathering.*

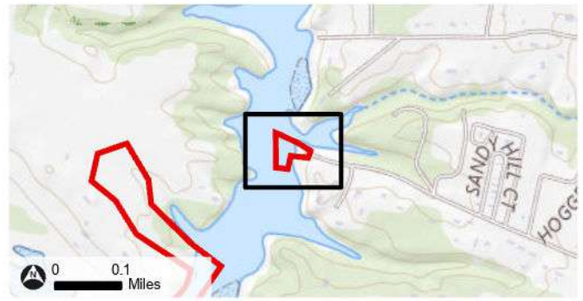
Figure 2: Williams Landing (GLO-16) | Gloucester County, Virginia | Parcels

Source: VGIN/VBMP Most Recent Ortho-imagery

Path: \\vhb.com\gis\proj\Williamsburg\35120.00 Mid-Pen_Multimodal_Water\Project\MMPDC_Shoreline_Conditions_MASTER.aprx (User: mhead, Date: 8/15/2024)

Parcel Tax Map ID	Owner Name	Land Use
0654-22-7997	COMMONWEALTH OF VIRGINIA, DEPARTMENT OF CONSERVATI	Parks, Open Space, & Greenways
0653-69-3267		Residential
0653-68-2836		Residential
0653-58-6515	WALKER, STANLEY B & WALKER, LESLIE E	Residential
0653-58-7330		Residential
0653-58-8492		Residential
0653-68-0368		Residential
0653-58-7427		Residential
0653-68-0611		Residential
0653-58-7637	SPENCER TRACY LAND TRUST	Residential
0653-58-8664		Residential
0653-58-6616	PUBLIC LANDING (WILLIAMS LANDING)	Residential

Figure 2: Williams Landing (GLO-16) | Gloucester County, Virginia | Natural Resources Analysis

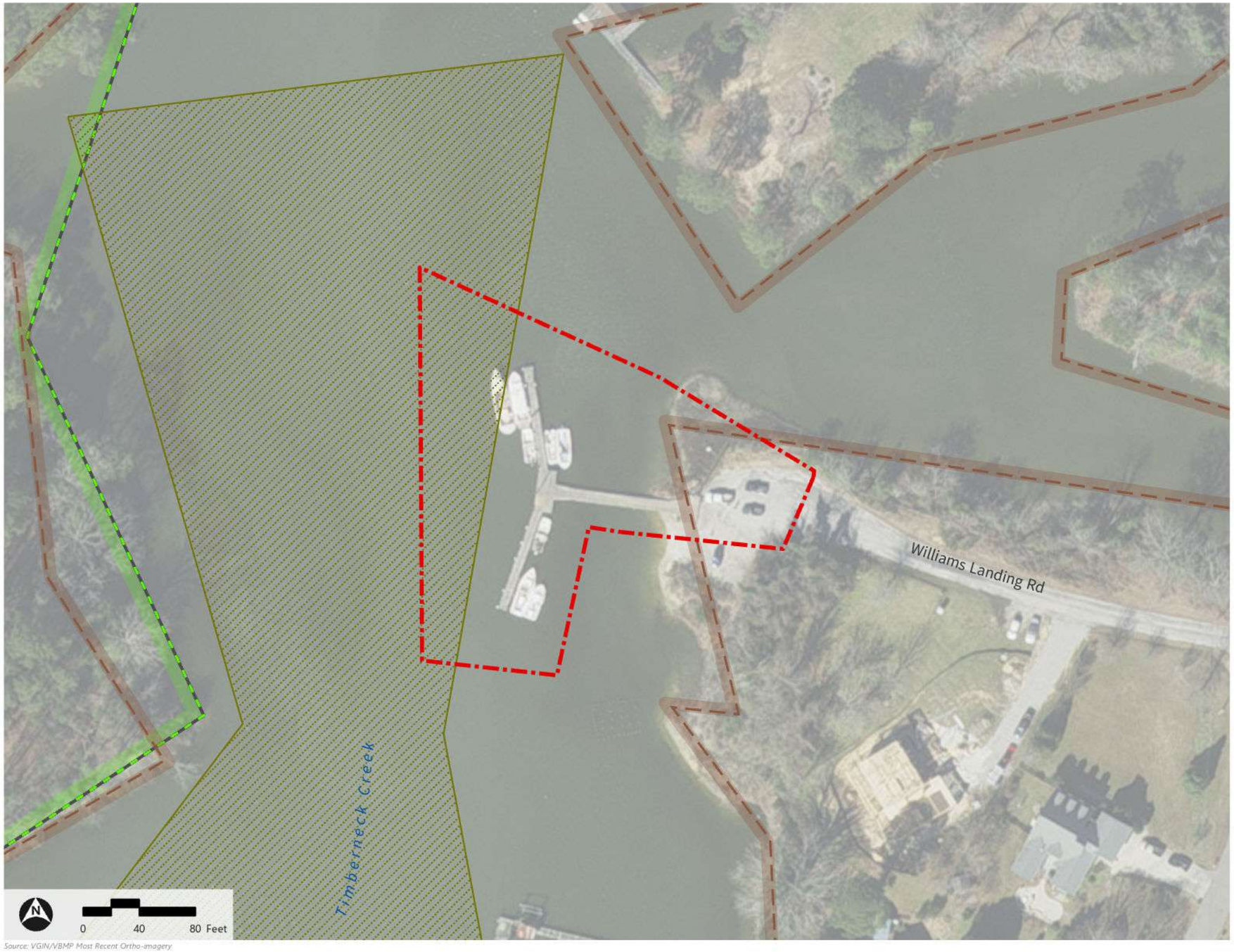


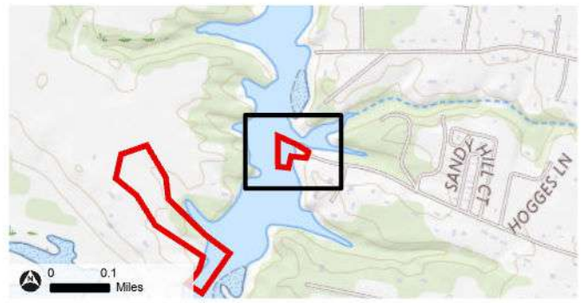
Legend

- Site Boundary
- Resource Protection Area (100' buffer)

Source: VGIN/VBMP Most Recent Ortho-imagery

Figure 2: Williams Landing (GLO-16) | Gloucester County, Virginia | Conservation and Wildlife Analysis



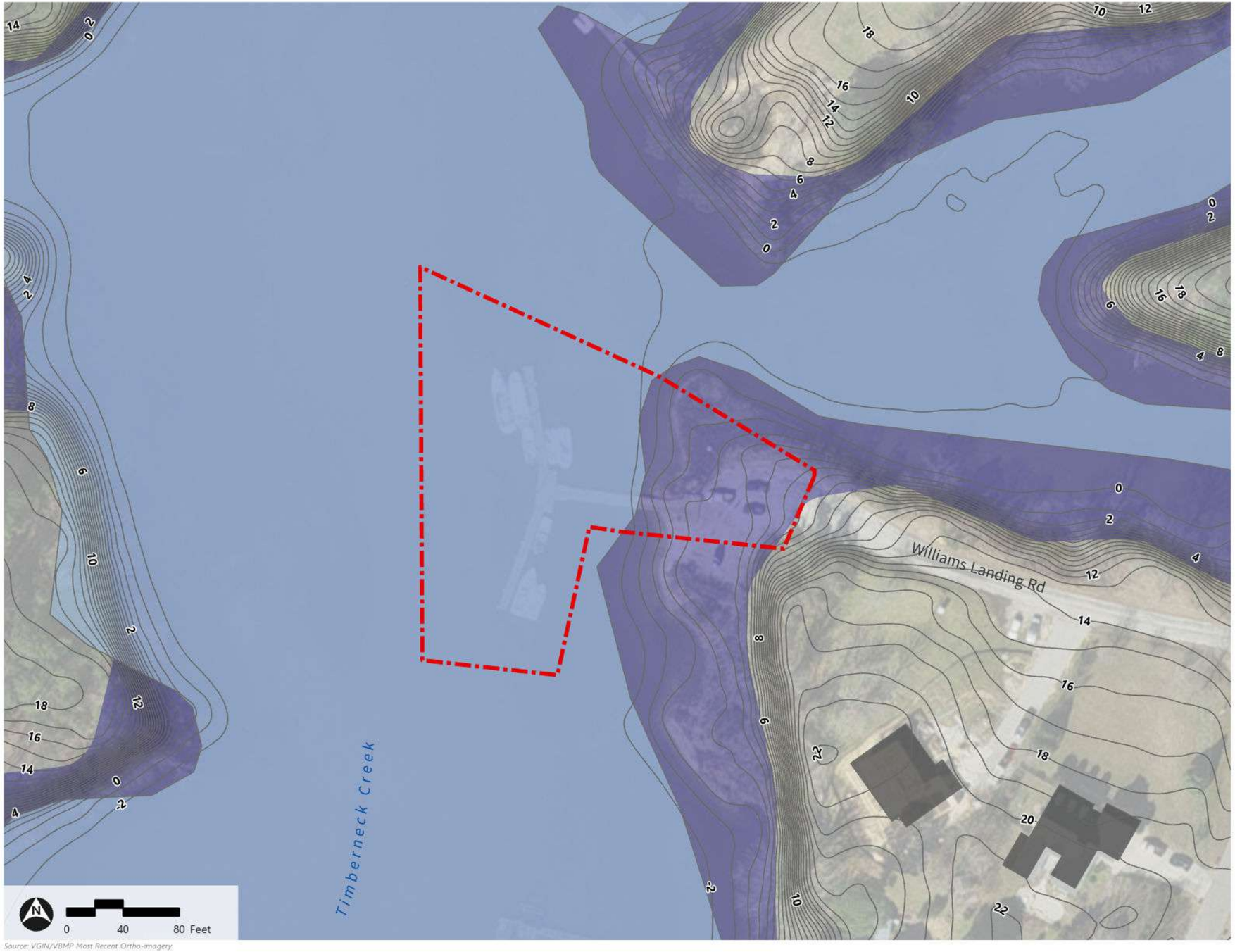


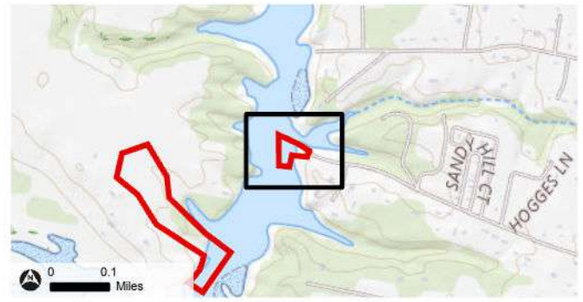
Legend

- Site Boundary
- Private Oyster Leases
- Shellfish Condemnation Zone
- Conservation Lands - State

Source: VGIN/VBMP Most Recent Ortho-imagery

Figure 2: Williams Landing (GLO-16) | Gloucester County, Virginia | Coastal Resilience - Floodplain





Legend

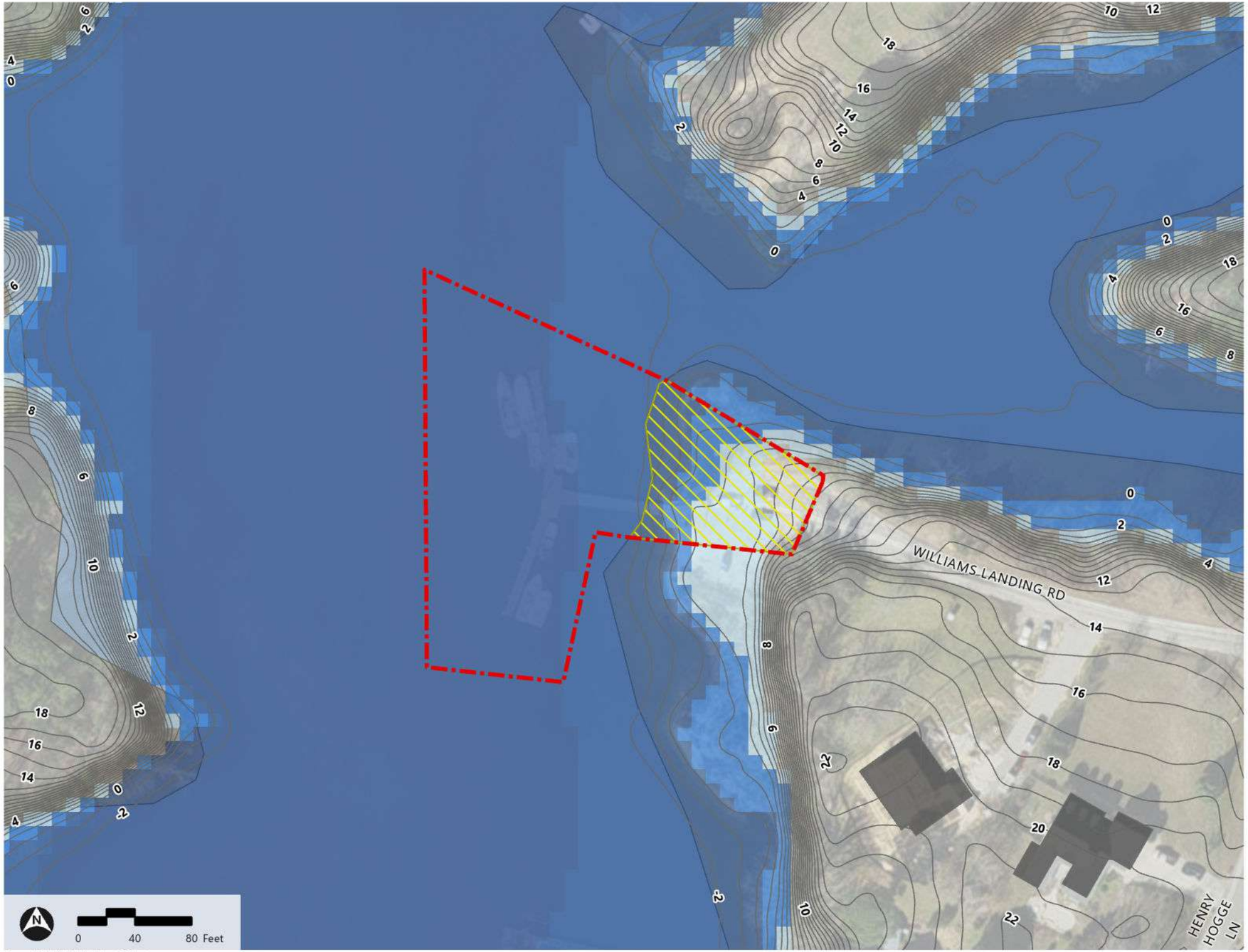
- Site Boundary
- Contours 1ft
- Waterbody
- Building Footprints

FEMA Flood Hazard

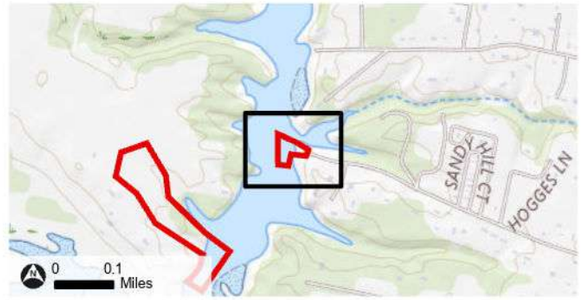
- Flood Zone AE

Source: VGIN/VBMP Most Recent Ortho-imagery

Figure 2: Williams Landing (GLO-16) | Gloucester County, Virginia | Coastal Resilience - Sea Level Rise



Source: VGIN/VBMP Most Recent Ortho-imagery



Legend

- Contours 1ft
- Waterbody
- Building Footprints

SLR Risk

- 03 Low Risk

Projected Sea Level

- 2020
- 2040
- 2060
- 2080