

Coastal Virginia Ecological Value Assessment (VEVA)

Marcia Berman
Karinna Nunez

Center for Coastal Resources Management
Virginia Institute of Marine Science

Jason F. Bulluck
Virginia Department of Conservation and Recreation
Division of Natural Heritage



Virginia Coastal Zone
MANAGEMENT PROGRAM



Center for
Coastal
Resources
Management
Virginia Institute of Marine Science

Q. What is VEVA?



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**A. A conservation planning resource
for Virginia's Coastal Zone**



Coastal Virginia Ecological Value Assessment (VEVA)

- Collaborative effort among several state programs to synthesize and merge independently developed landscape assessments into a single geospatial product;
- VEVA uses science-based best professional judgment to rank coastal landscapes based on their ecological value;
- Developed to provide guidance to local governments engaged in land use management and conservation planning;

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Coastal Virginia Ecological Value Assessment (VEVA)

Data Sources:

- Priority Wildlife Diversity Conservation Areas (VA DGIF)
- Natural Lands Network (VA DCR - Nat. Heritage)
- Natural Heritage Conservation Sites Layer (Nat. Heritage)
- Aquatic Resource Integrity Layer (VCU-CES)
- Aquatic Priority Conservation Areas (VIMS-CCRM)
- Virginia's Healthy Waters (VA DEQ)

Phase 1. Priority Conservation Areas

Focus: Terrestrial/Free Flowing Streams

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DGIF

Priority Wildlife Div.
Dave Morton

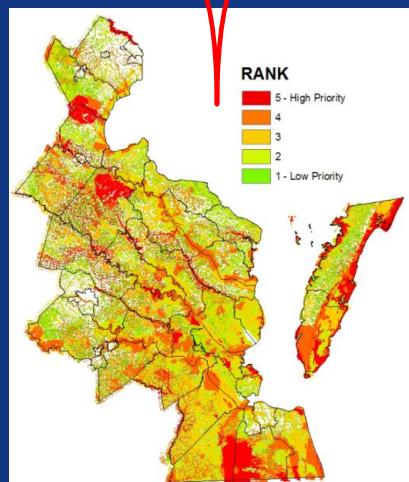
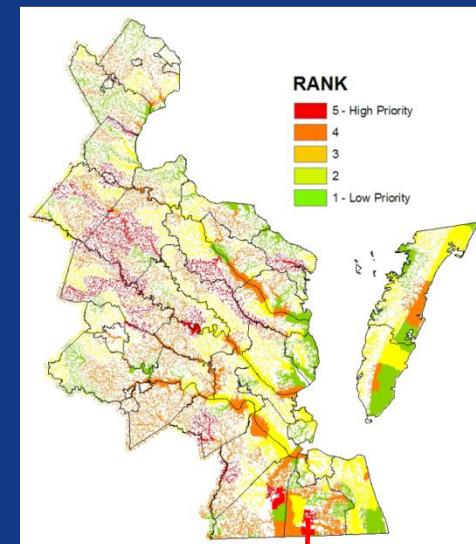
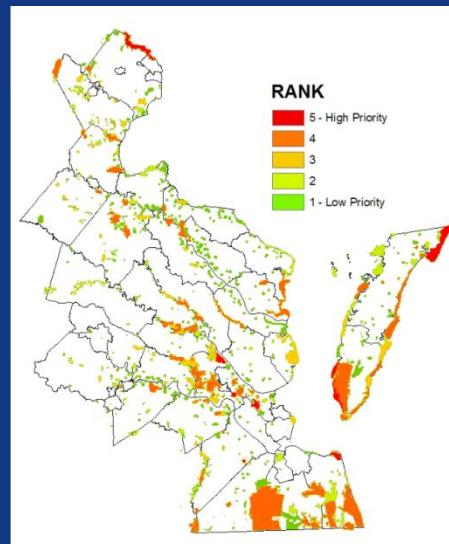
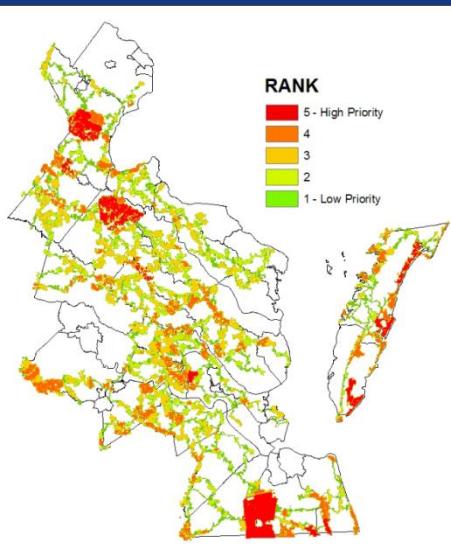
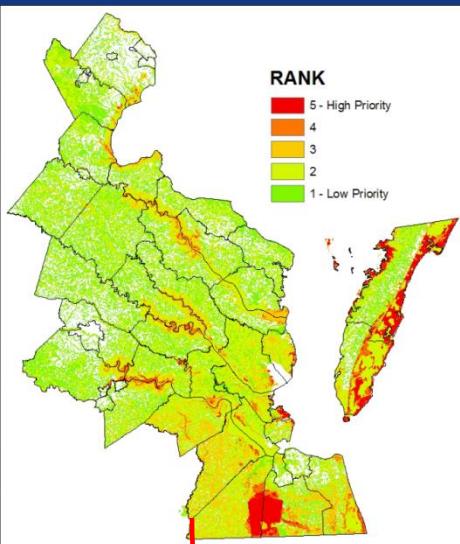
DCR

Natural Lands Net
Joe Webber

DCR- Nat. Heritage
Conservation Sites
Jason Bullock

VCU- CES

Aqua. Res. Integrity
Greg Garman



FINAL PCA - Phase 1

Phase 2.

Aquatic Priority Conservation Areas

Focus: Estuarine

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Data Layers used to establish Aquatic Priority Conservation Areas

1. Colonial Waterbird Database
2. Audubon Important Bird Areas
3. Shellfish Suitability
4. Reef Restoration Sites
5. Oyster Reefs
6. Artificial Fishing Reef
7. Wetlands (2009 NWI)
8. Sand/Mud Flats
9. Seed Areas
10. Aquaculture sites
11. Turtle Nesting Sites
12. SAV (1999 – 2008)
13. Aquatic Confirmed Habitat
14. VCU Aquatic Resource Integrity
15. Stream Conservation Areas
16. Threatened & Endangered Waters
17. Regulated Areas

APCA Ranking of Individual Attributes

LAYER	SCORE
1) Colonial Waterbird Database	3
2) Audubon Important Bird Areas	2
3) Shellfish Suitability	2
4) Reef Restoration Sites	3
5) Oyster Reefs	3
6) Artificial Fishing Reef	1
7) Wetlands (2009 NWI)	3
8) Sand/Mud Flats (from 2009 NWI)	2
9) Seed Areas	1
10) Aquaculture sites	2
11) Turtle Nest	3
12) SAV (1999 – 2008)	3
13) Aquatic Confirmed Habitat	3
14) VCU Aquatic Resource Integrity	3
15) Stream Conservation Areas	2
16) Threatened & Endangered Waters	3
17) Regulated Areas	1

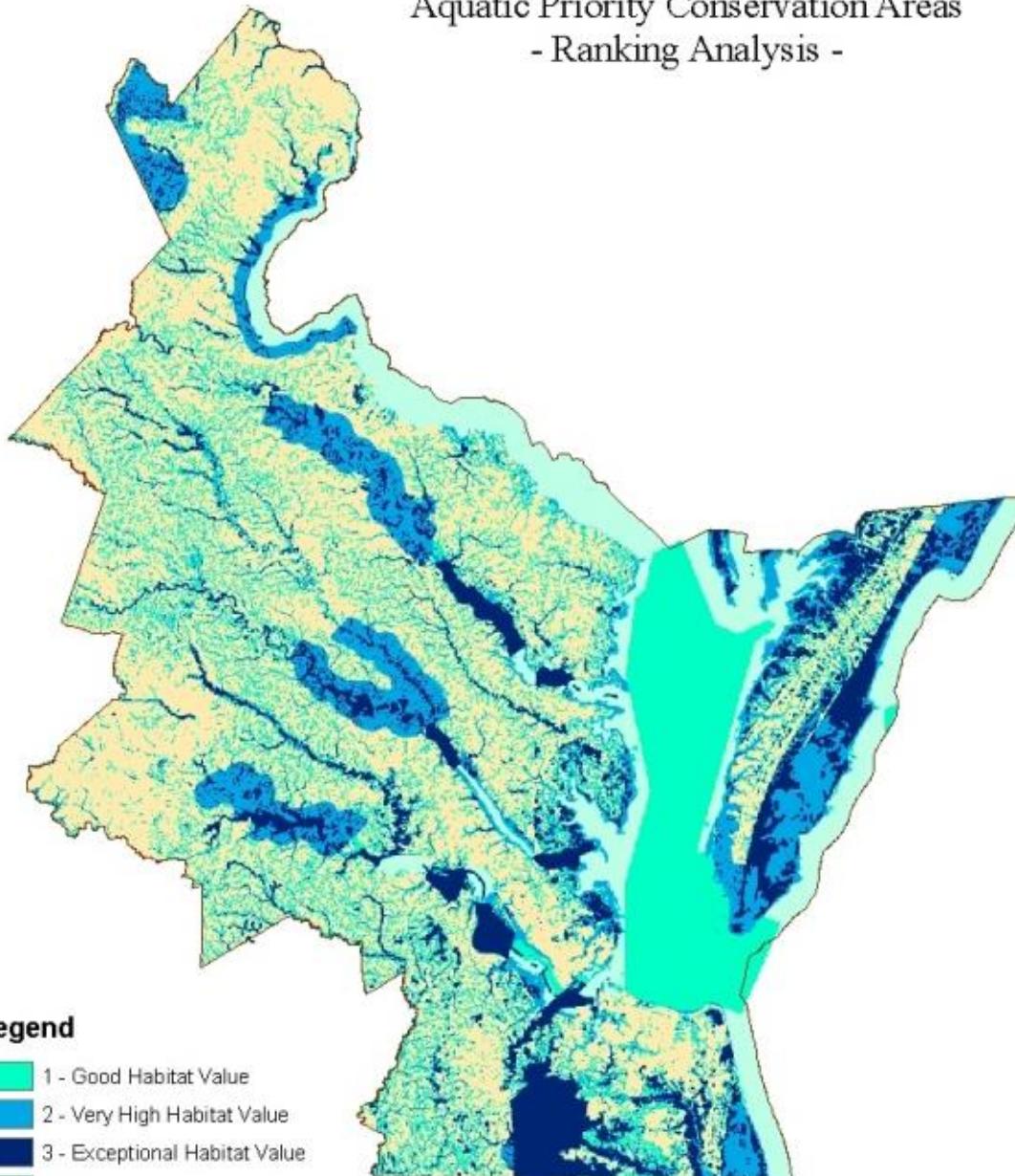
Habitat Value

1 = good

2 = very high

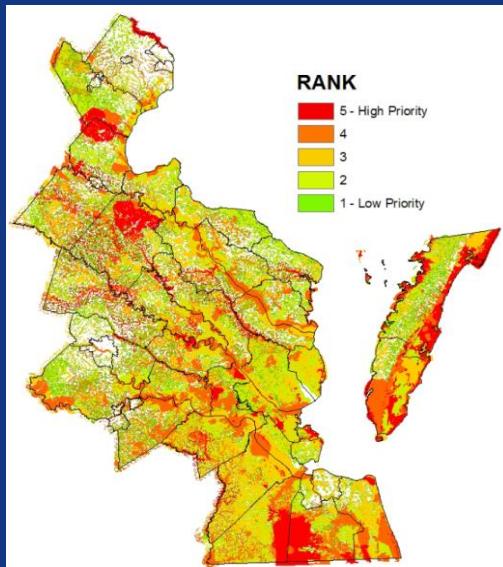
3 = exceptional

Aquatic Priority Conservation Areas - Ranking Analysis -



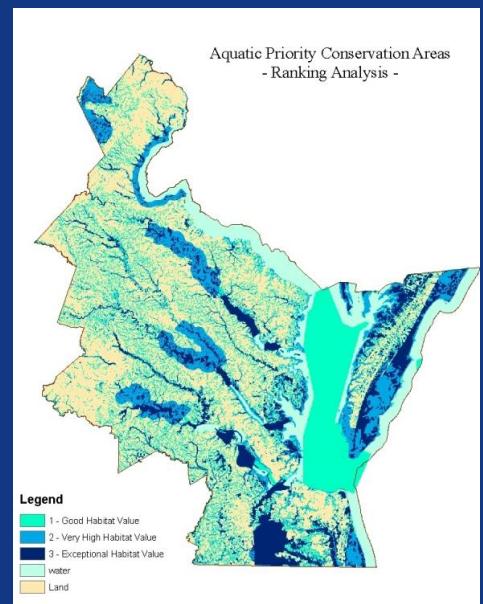
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Priority Conservation Areas (PCA)



Health Waters

Aquatic Priority Conservation Areas (APCA)



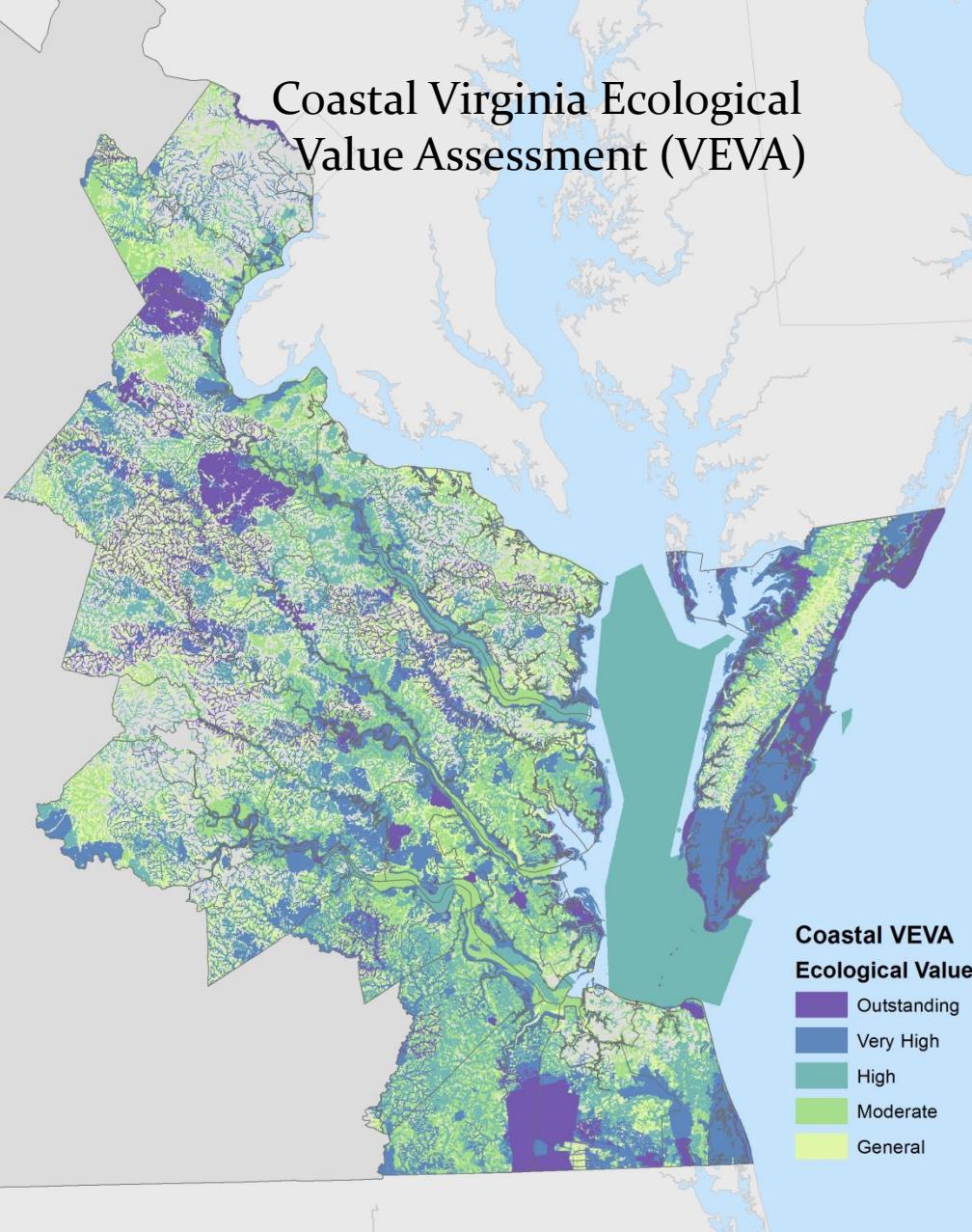
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DCR
Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL & RECREATIONAL RESOURCES

WILLIAM MARY VIMS
VIMS
Virginia Institute of Marine Sciences

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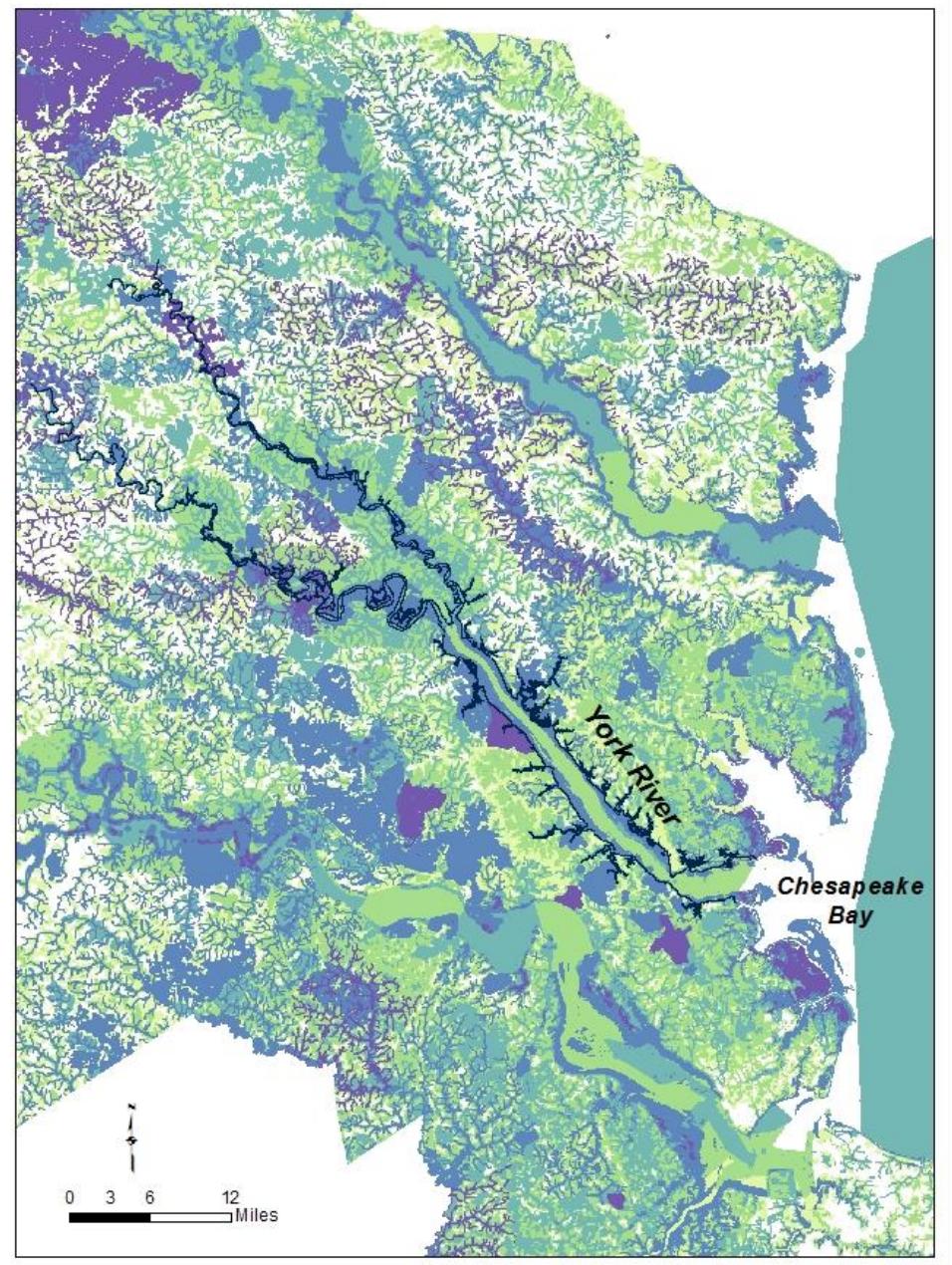
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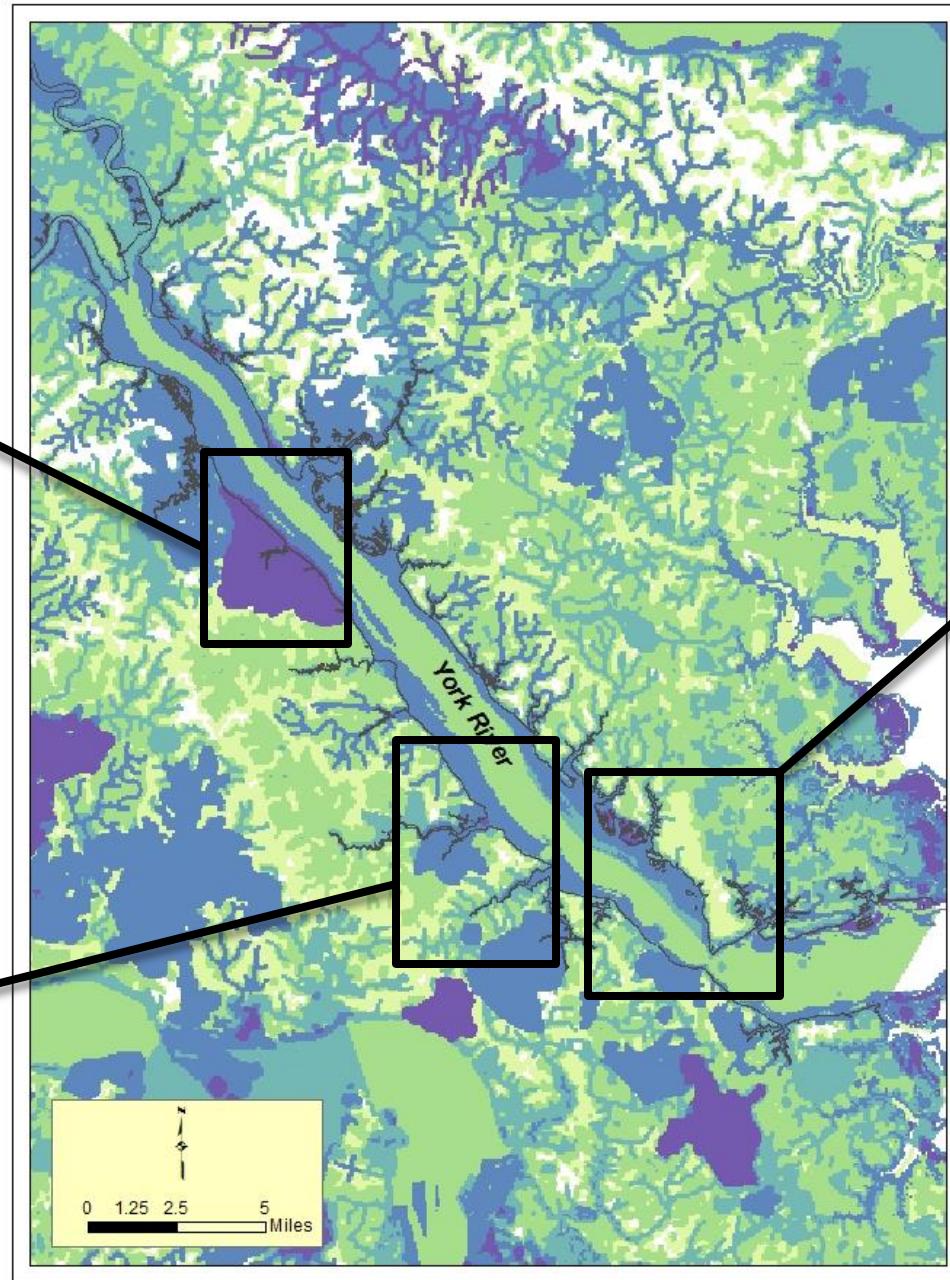
Coastal VEVA York River Watershed

Coastal VEVA Ecological Value

- Outstanding
- Very High
- High
- Moderate
- General



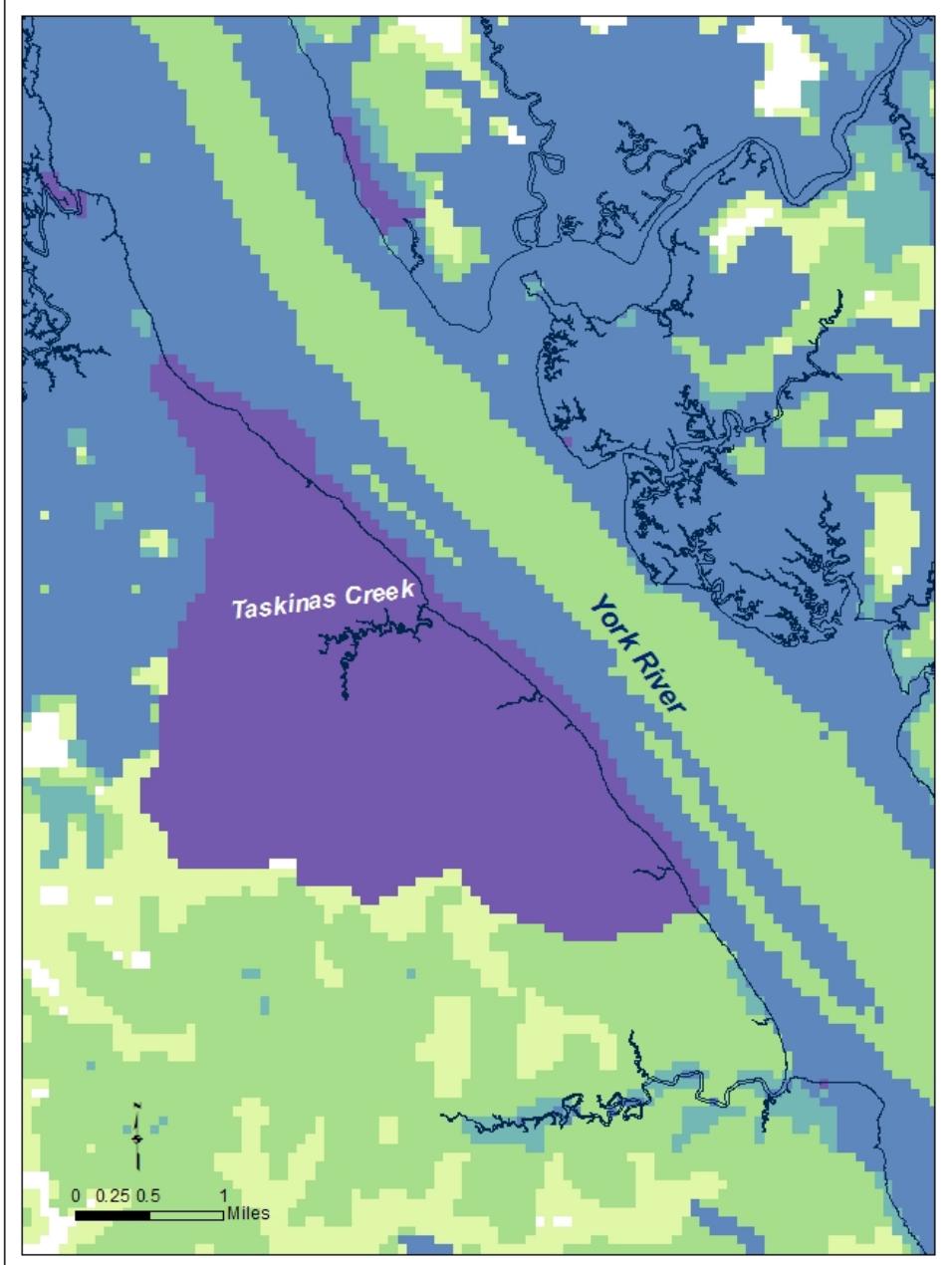
Taskinas Creek
Queen Creek
King Creek
- York County -



Taskinas Creek

Coastal VEVA Ecological Value

- Outstanding
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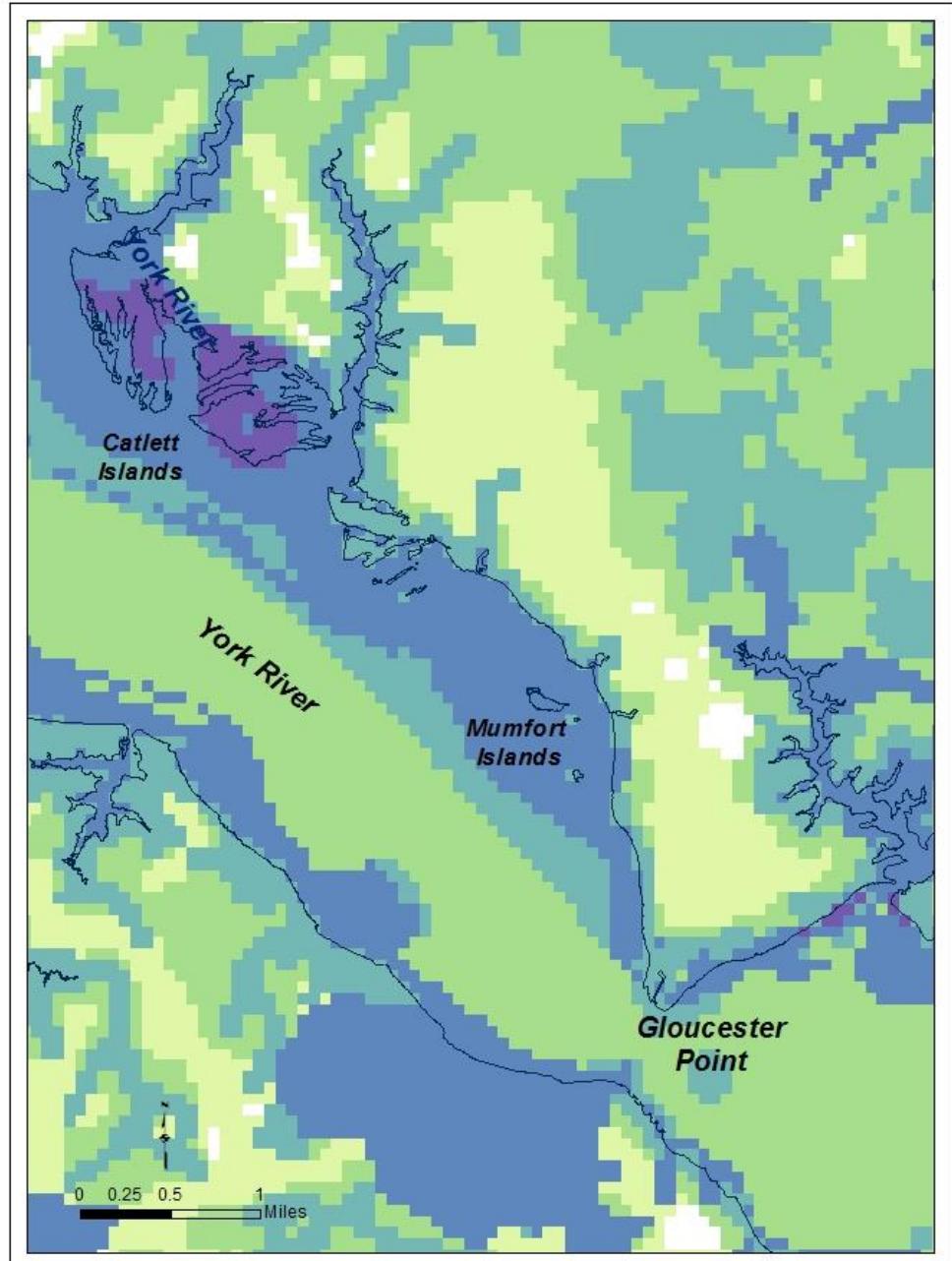
Gloucester Point

Catlett Islands

Mumfort Islands

Coastal VEVA Ecological Value

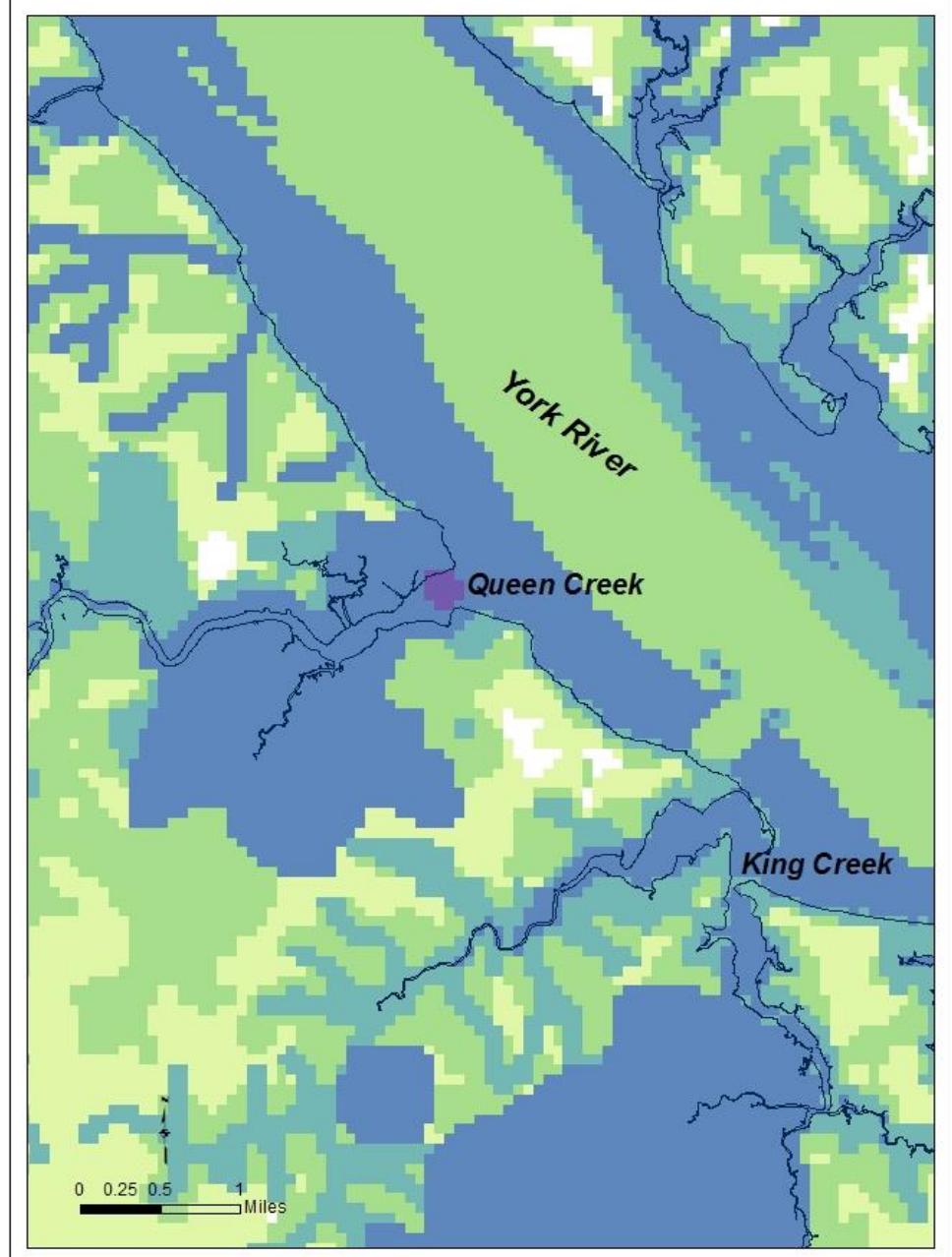
- Outstanding
- Very High
- High
- Moderate
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Queen Creek King Creek - York County -

Coastal VEVA Ecological Value

- Outstanding
- Very High
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How Can VEVA be integrated into local planning?

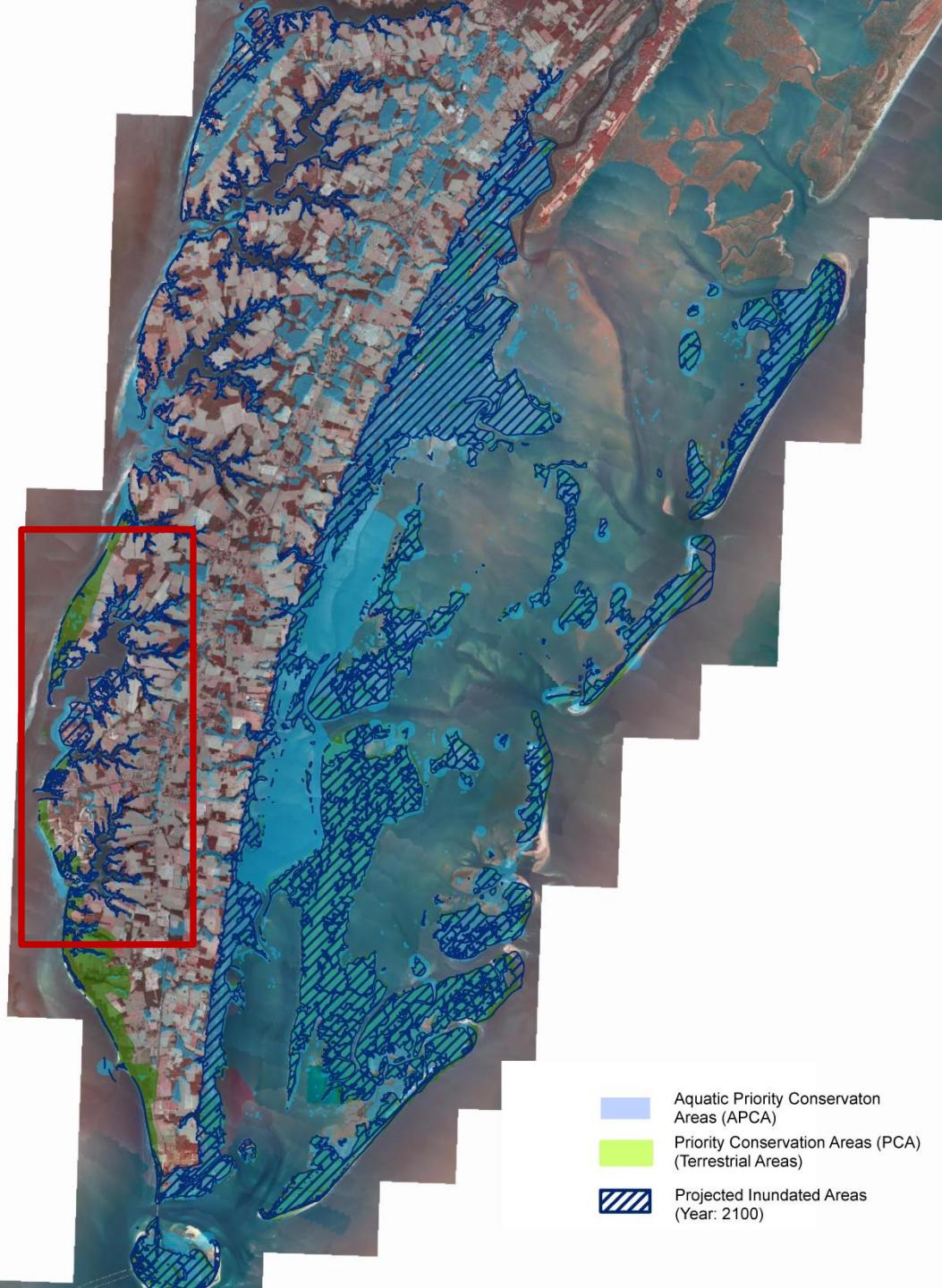
It Depends

- What exactly are we trying to preserve?
- What is the planning horizon?
- To what extent should sea level rise influence conservation decision-making?
- Can we project how humans will respond to sea level rise?
- To what extent do those choices effect resource sustainability and conservation priorities?



■ Priority Conservation Areas (PCA)
(Terrestrial Areas)

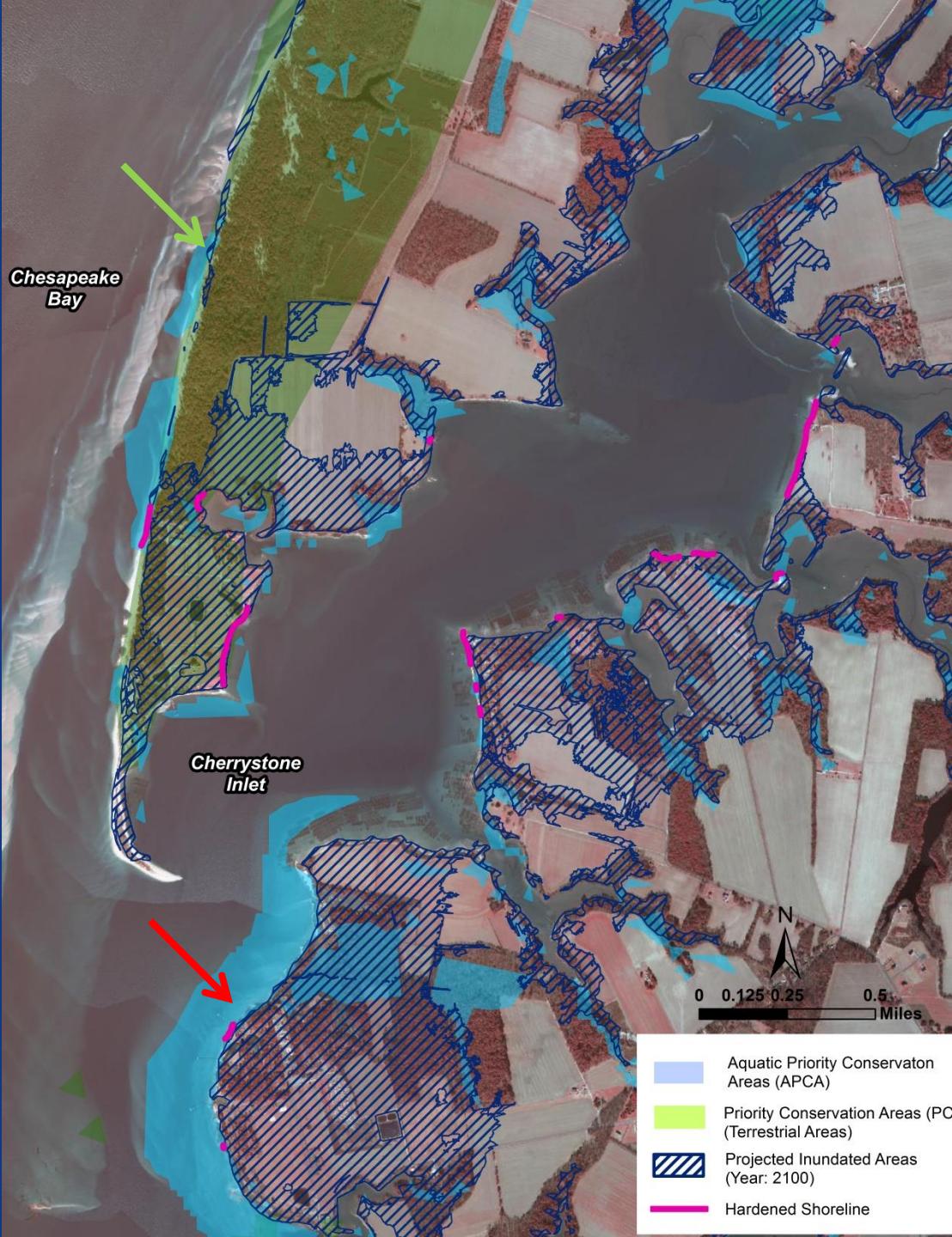
■ Projected Inundated Areas
(Year: 2100)





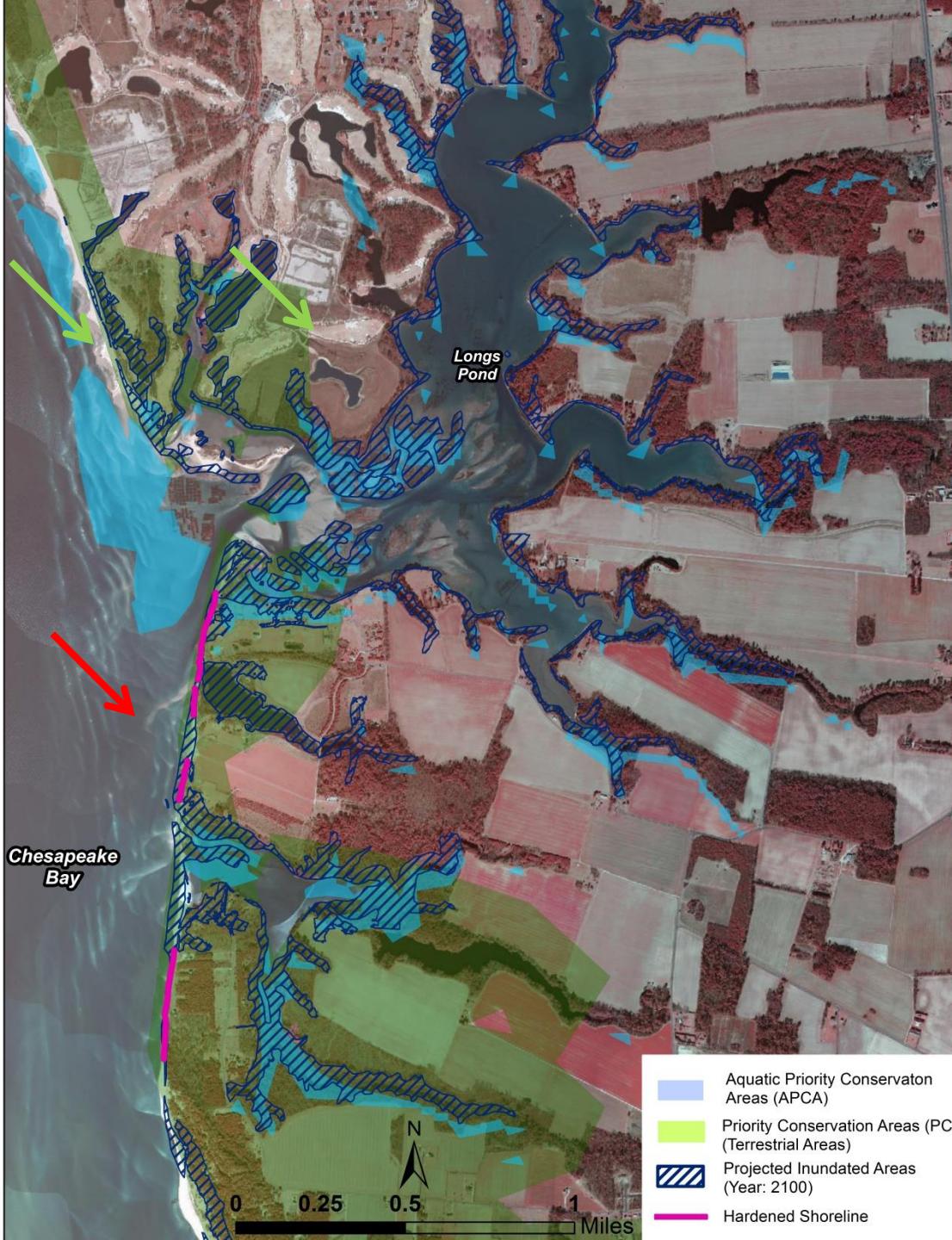
Aquatic Priority Conservation Areas (APCA)
**Priority Conservation Areas (PCA)
(Terrestrial Areas)**











Final Thoughts

- VEVA in its current format is best used for setting near-term priorities for conservation goals ;
- Value-added information will strengthen the efficacy of VEVA as a long-term planning tool for resource conservation;
- Balancing conservation with economic pressures as well as private property owner rights must be considered

Coastal VEVA

<http://www.deq.state.va.us/coastal/coastalgems.html>

http://ccrm.vims.edu/resources/conservation_planning/index.html

<http://www.dgif.virginia.gov/gis/gis-data.asp>



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