COASTAL VIRGINIA ECOLOGICAL VALUE ASSESSMENT

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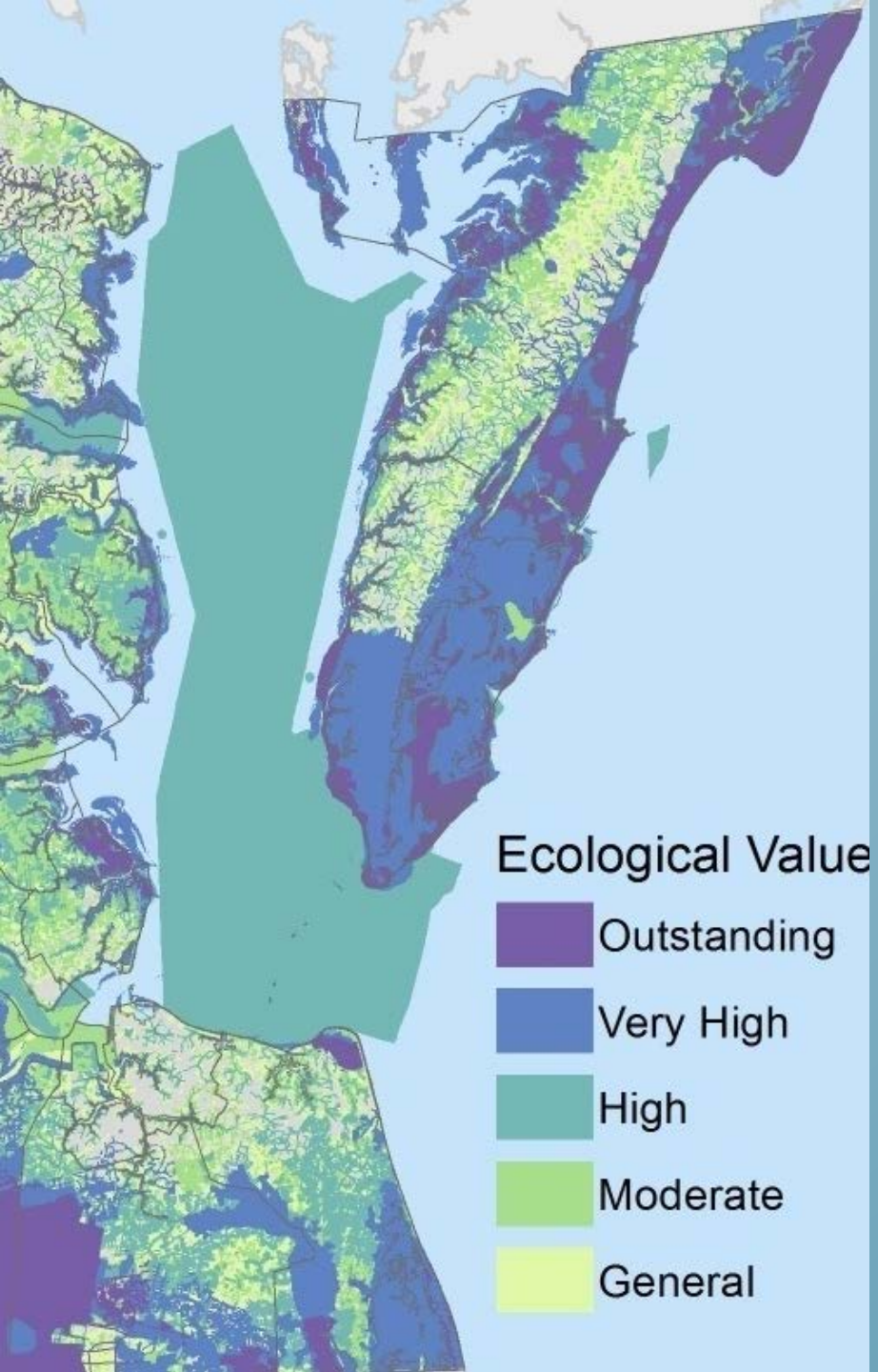
VCU Center for Environmental Studies

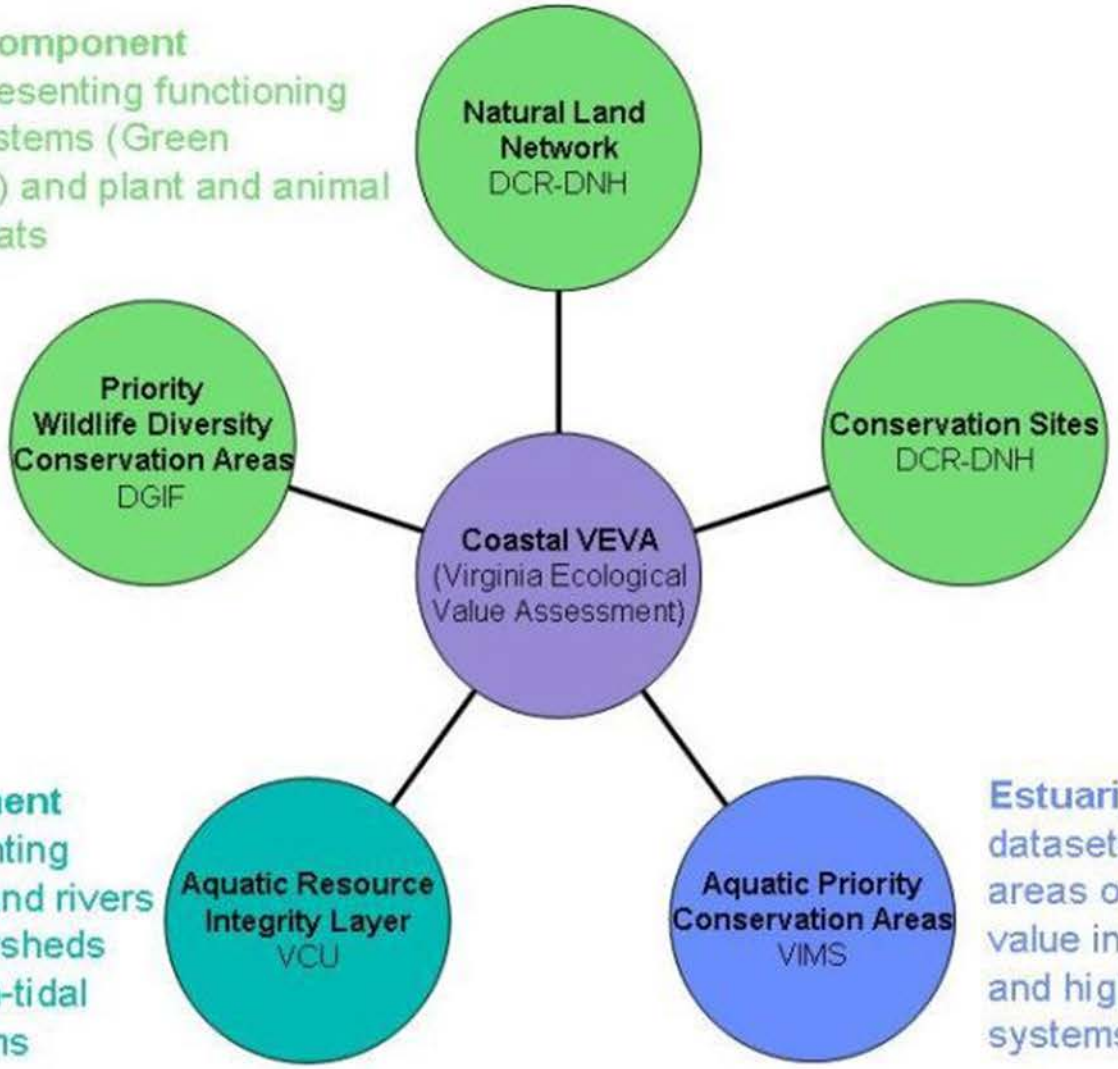
This project was funded in part by the Virginia Coastal Zone Management Program at the Department of Environmental Quality through grant number NA10NOS4190205 of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Act of 1972, as amended.



COASTAL VEVA

- *Uses science-based, best professional judgment to classify natural systems of Virginia's coastal landscape*
- *Collaborative effort among state programs to synthesize best available ecological information into a single map*
- *Provides guidance for land use management, conservation planning and acquisition*

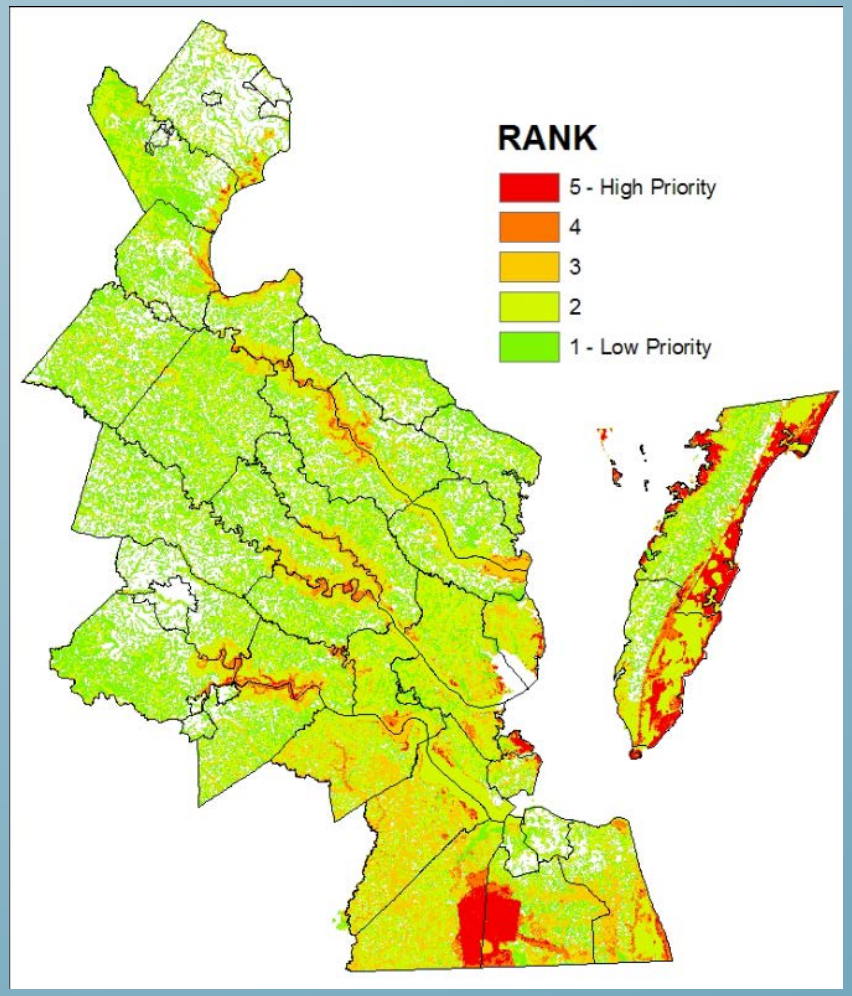
Terrestrial Component
datasets representing functioning ecological systems (Green Infrastructure) and plant and animal species habitats



Aquatic Component
datasets representing healthy streams and rivers and healthy watersheds involving tidal/non-tidal freshwater systems

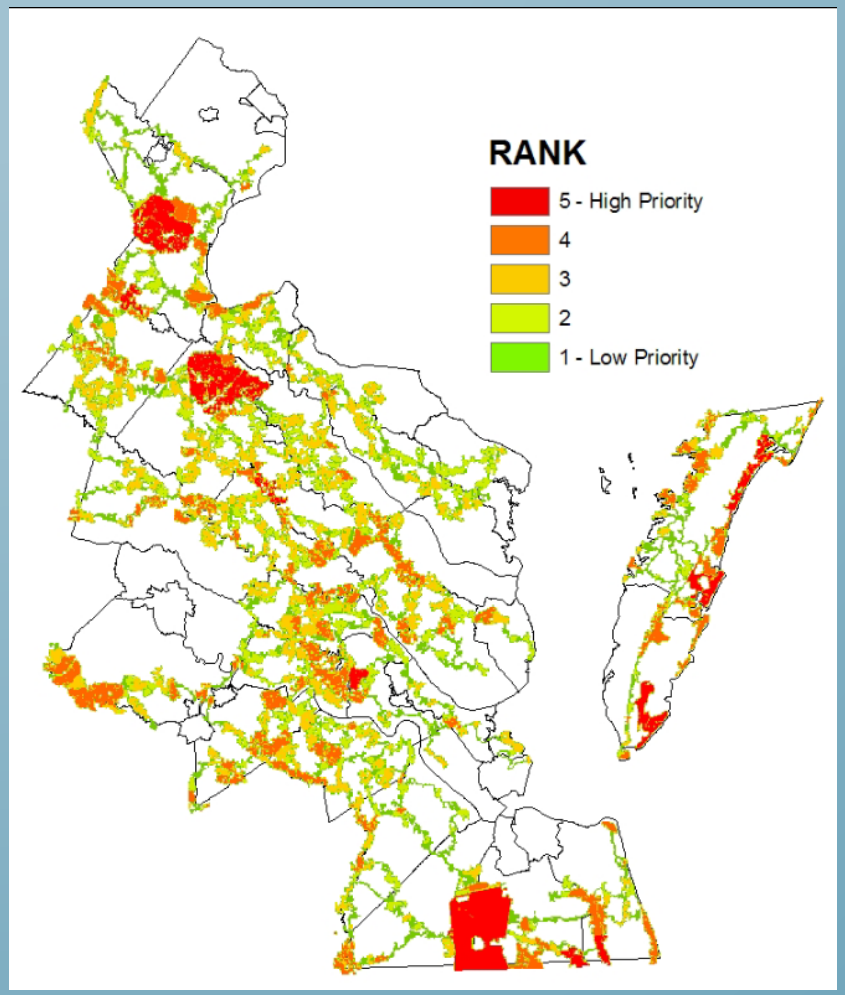
Estuarine Component
datasets representing areas of high resource value involving estuarine and high salinity systems

DGIF- PRIORITY WILDLIFE DIVERSITY CONSERVATION AREAS



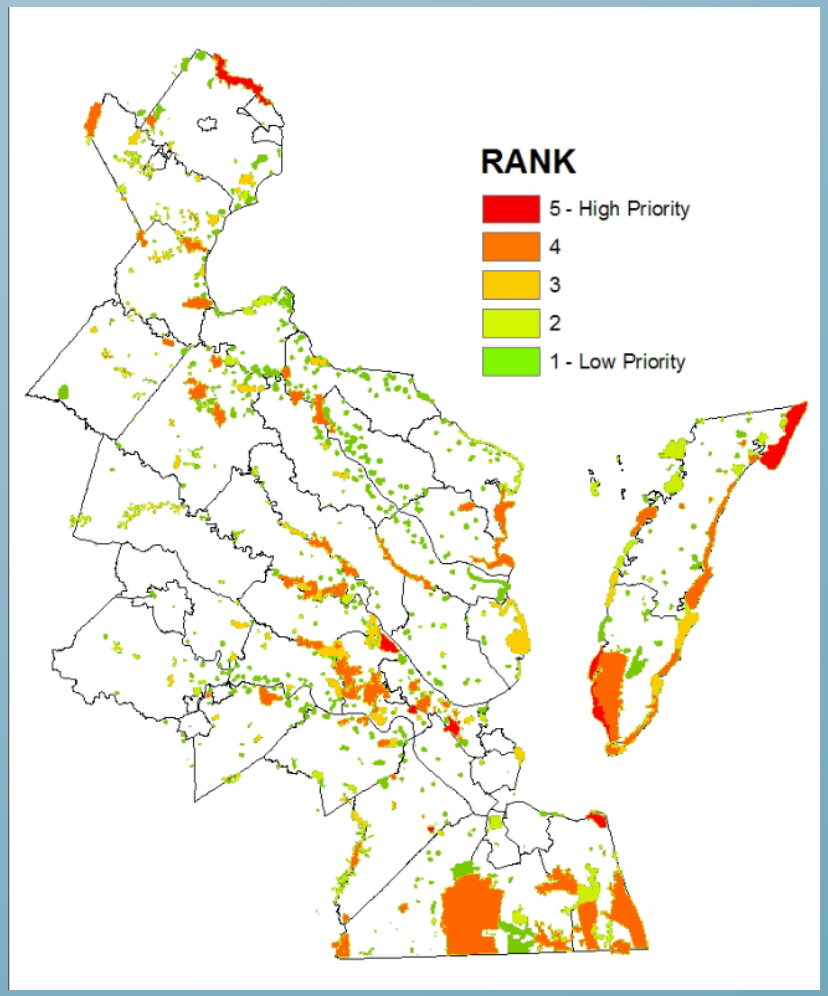
- *Input from wildlife diversity biologists*
- *Based on Virginia's Wildlife Action Plan*
- *Other wildlife resource spatial data*
  - *Important bird areas*
  - *Colonial waterbird sites*
  - *Coldwater streams*
  - *Anadromous fish use areas*
  - *Etc.*
- *Datasets ranked based on conservation value for wildlife*

DCR-DNH- NATURAL LANDSCAPE NETWORK



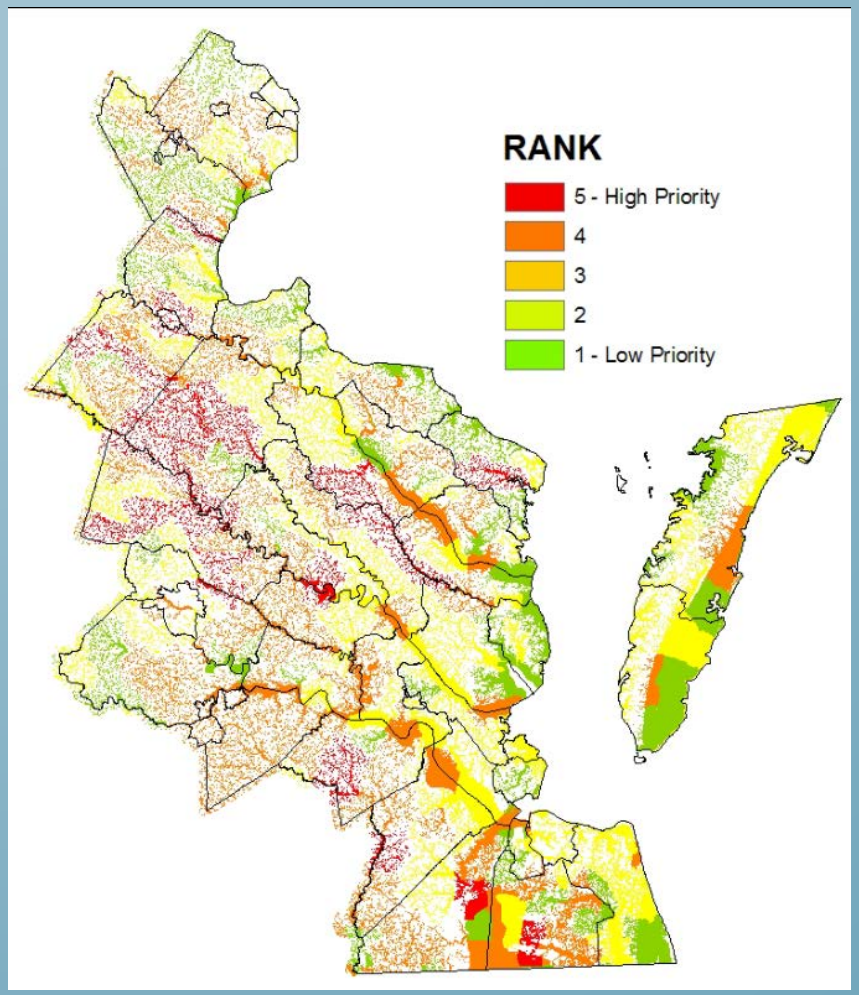
- *Coarse filter*
- *Virginia Natural Landscape Assessment*
  - *Prioritizes natural lands*
  - *Identifies natural land networks*
- *C1 and C2 cores and corridors/nodes*
- *Ranked by ecological integrity, 1-5 (5 highest)*

DCR-DNH- CONSERVATION SITES



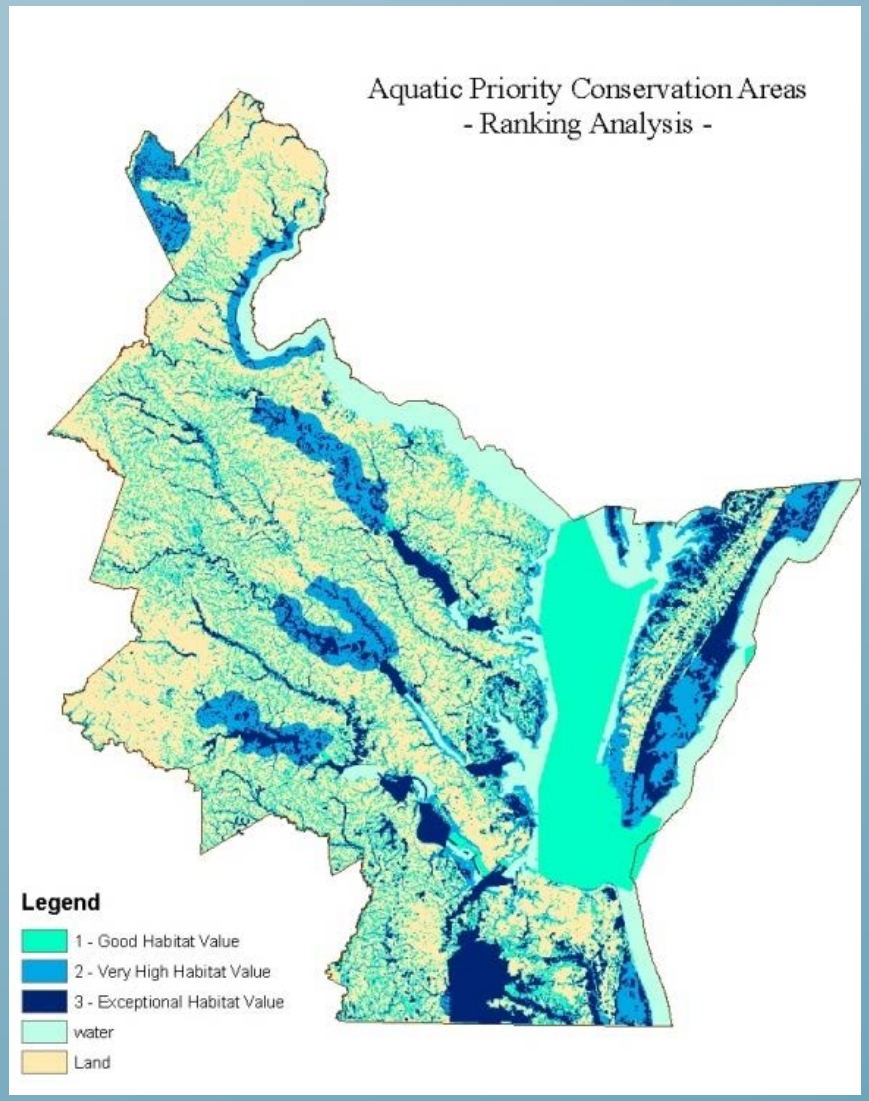
- *Fine filter*
- *Delineate known occurrences of rare species, plus required habitat and buffer*
- *Biodiversity significance ranked*
- *Represent land that should be conserved for protection of natural heritage resources, NOT protected lands*

VCU- AQUATIC RESOURCE INTEGRITY LAYER



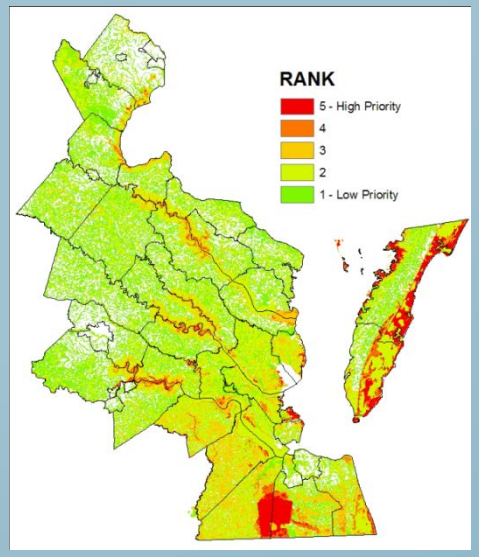
- *Stream reach approach*
  - *Individual reaches*
  - *INSTAR*
  - *Aquatic community assessment*
    - *Fish, habitat, macroinvertebrates*
- *Watershed approach*
  - *Coarse scale analysis to characterize whole watershed*
  - *Incorporates various data*

VIMS-AQUATIC PRIORITY CONSERVATION AREAS

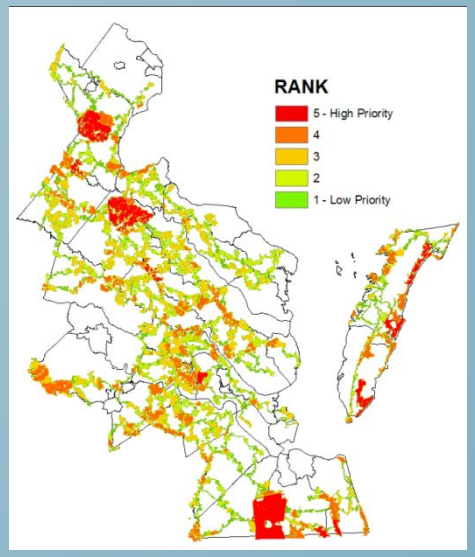


- *17 different layers from various agencies*
- *Assigned a score (1-3) for each resource*
- *Assessed weighted sum, boosted weighted sum, and maximum value approaches*
- *Maximum value approach chosen to create the final product*

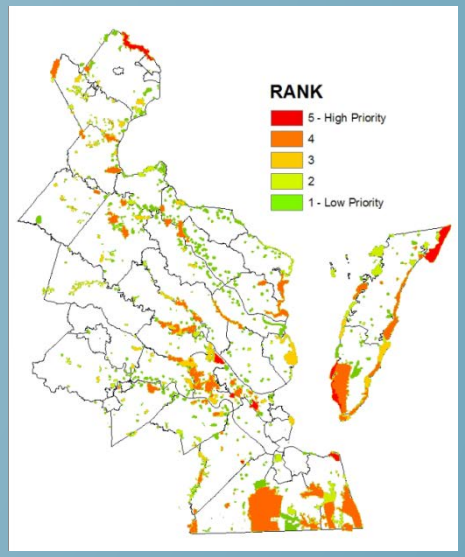
DGIF- PWDCA



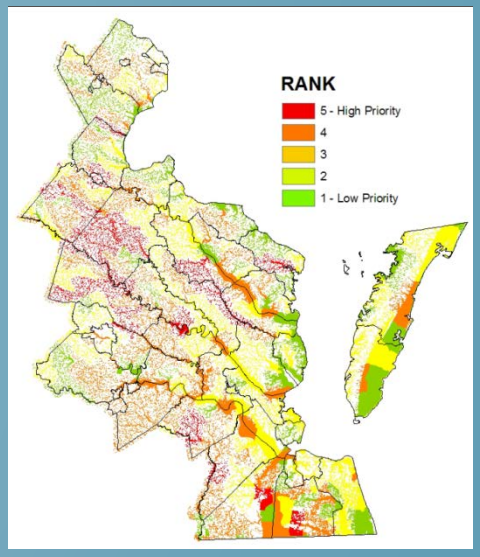
DCR- NLN



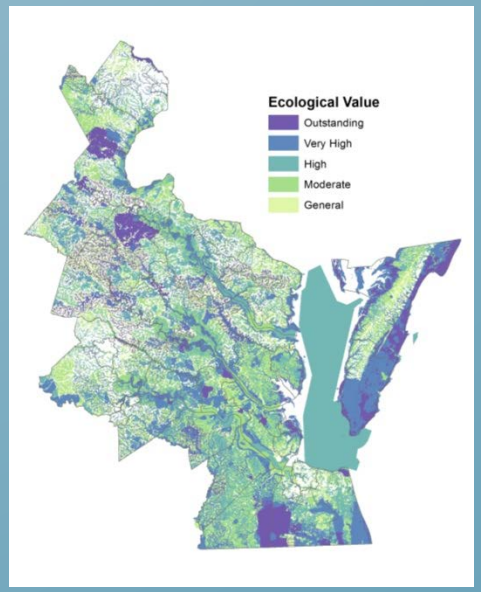
DCR- Cons. Sites



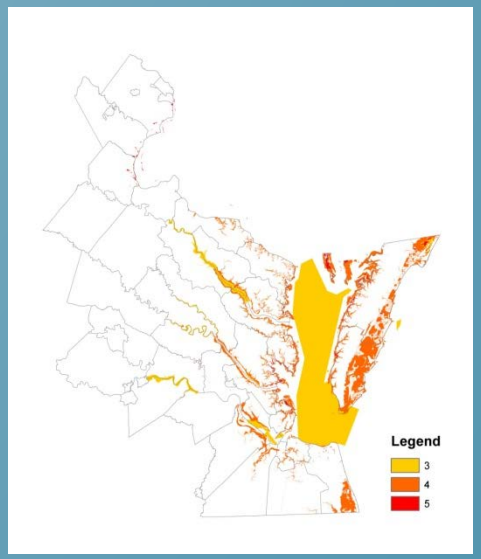
VCU- Aquatic



Coastal VEVA



VIMS - CRA



1+1+ 1+1+1 = 1 3+2+3+3+5 = 5

- *Datasets in the VEVA analysis* ***retained their pre-existing weights*** *applied to lands and/or waters by the agency that developed the data input.*
- *All lands and waters in the VEVA display their* ***highest ranking*** *as per input datasets and agency.*
- *In cases of overlap, the* ***highest value*** *given to any particular land/water* ***was retained*** *for the final map.*
- *All lands and waters are ranked on an Ecological Value scale of 1 – 5 (1=General, 5=Outstanding).*

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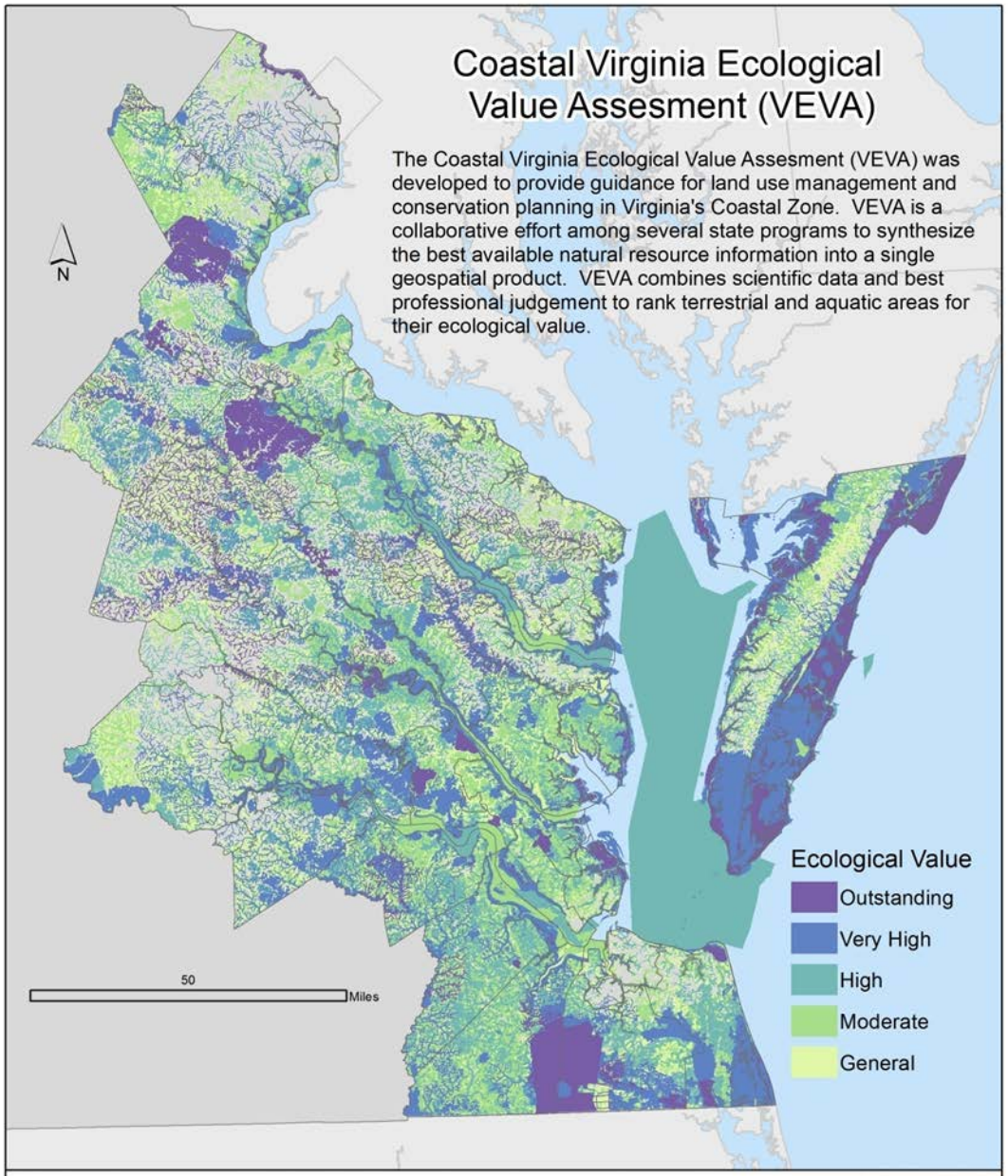

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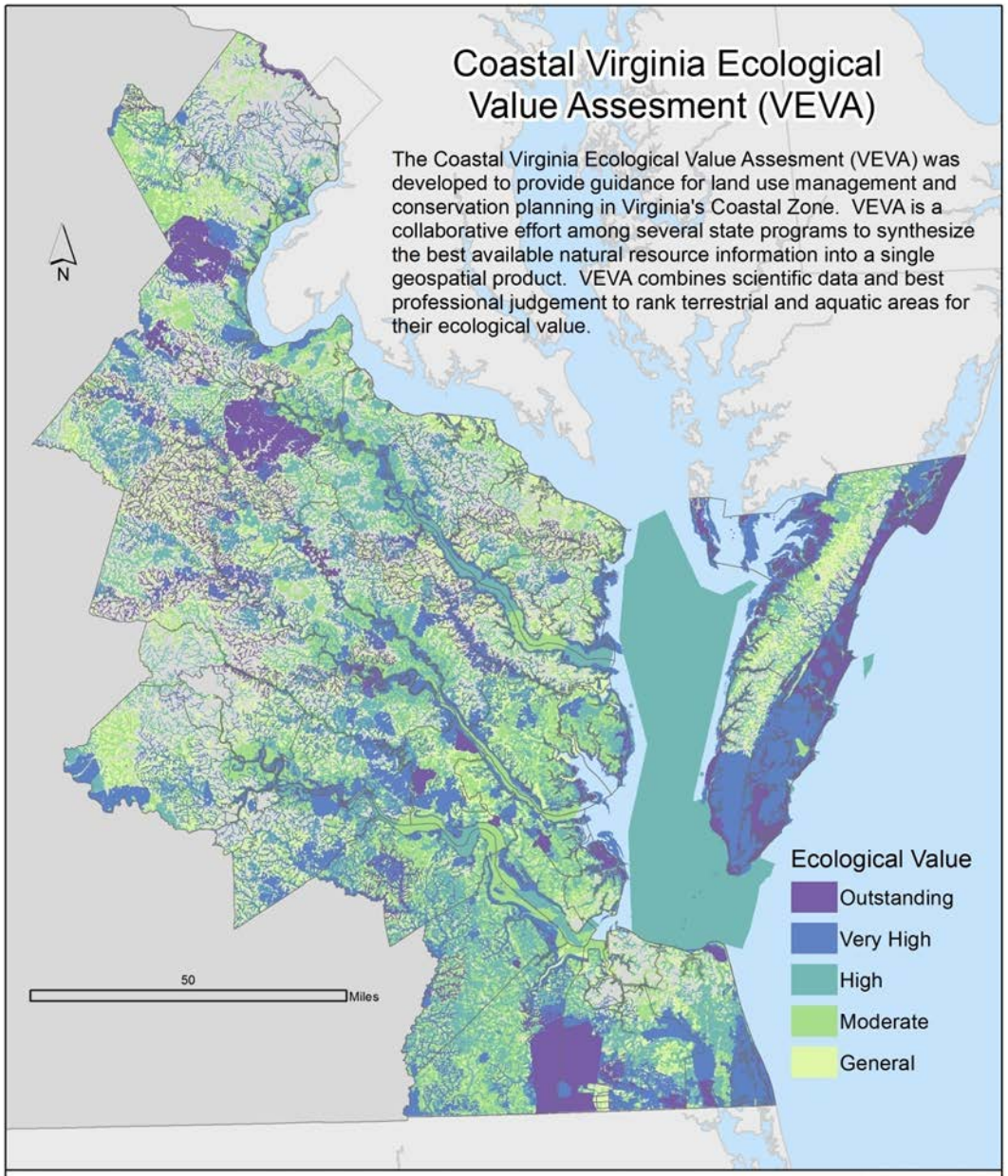
UTILIZATION

- *Developing local comprehensive plans*
- *Prioritizing land acquisition*
- *Prioritizing habitat restoration*
- *Informing land and water-based permit decisions*



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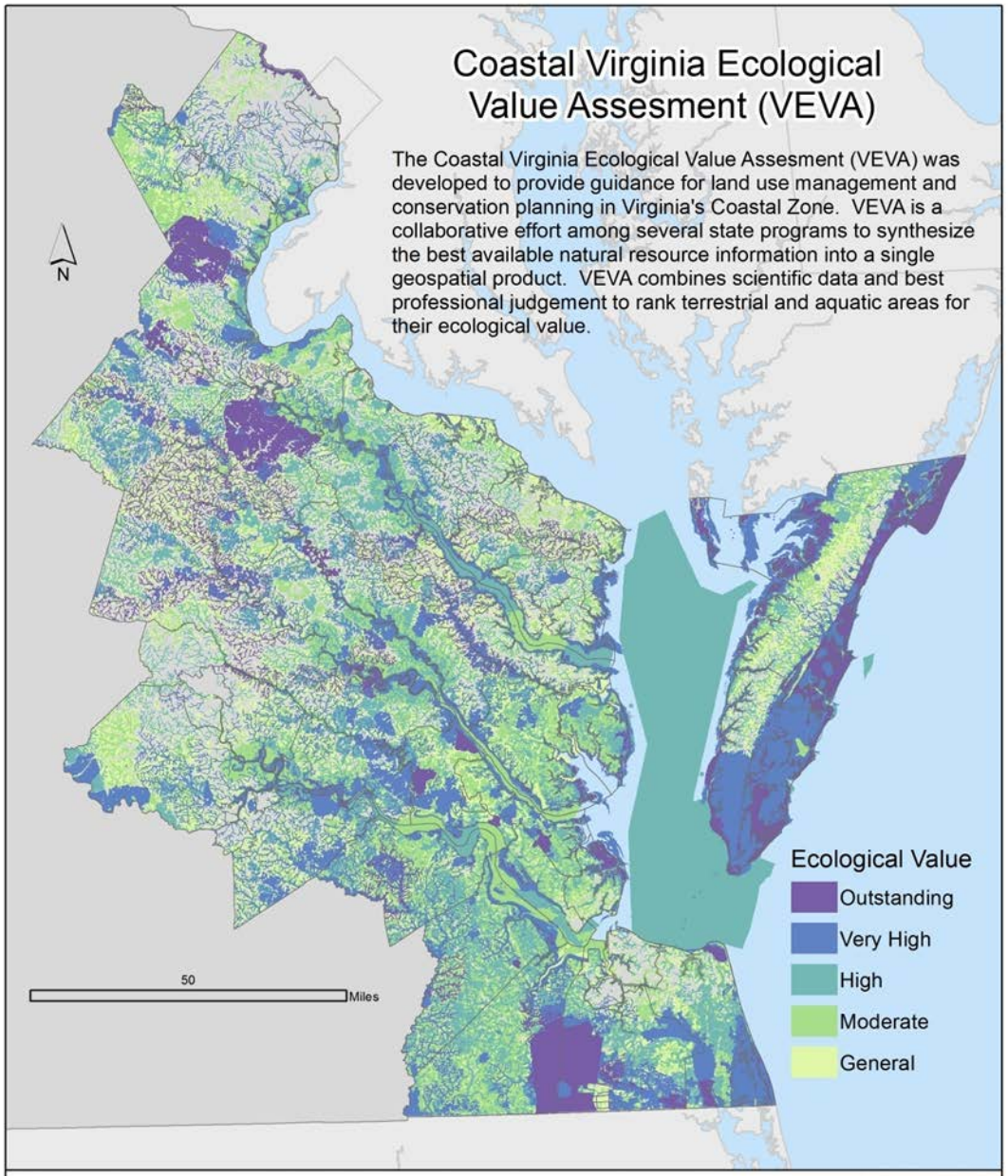
UPDATE SCHEDULE

- *July 2016 – March 2017*
  - *DCR Updates VaNLA*
  - *DGIF Updates PWDCA*
  - *VCU disseminates /compiles results from VEVA Use Survey, secures additional aquatic data inputs, and preps VEVA model*
- *April 2017*
  - *VCU runs final to create updated VEVA dataset and compiles metadata*
- *Summer – Fall 2017*
  - *VCU develops VEVA outreach tools/materials and performs outreach*



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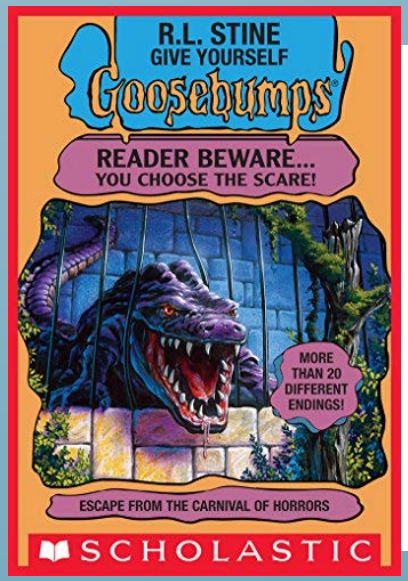
VEVA USE SURVEY

- *Query local governments, PDC's, non-profit groups and other stakeholders to evaluate the use and application of Coastal VEVA*
- *Results will be compiled and used to guide the development of outreach materials, tools, and presentations*

https://goo.gl/forms/buVZRaBVO9YRipdd2



As you reach the carnival entrance, you hear music coming from inside. Not the usual corny organ stuff they always play. But some really strange music. It sounds familiar and totally new at the same time.

Brad stretches his neck to try to peer over the fence. But no luck. The fence is way too high.

Patty jiggles the padlock on the gate. It's sealed shut.

"I guess we'll have to wait until tomorrow night when the carnival opens," Brad says.

"No way," Patty says. "Let's climb the fence. Now!"

"Are you crazy?" Brad says. "We'll get caught!"

"Come on. There's probably no one in there," Patty replies.

Your friends turn to you to cast the deciding vote. You glance at your watch. It's almost 9:00 P.M. If you're going to get home in time, you should start back now.

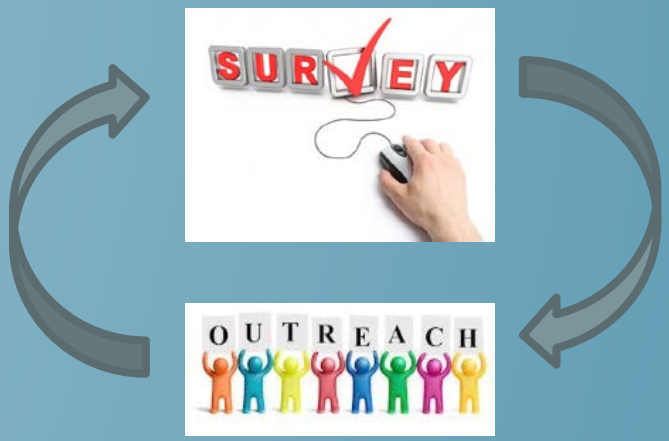
What are you going to do?

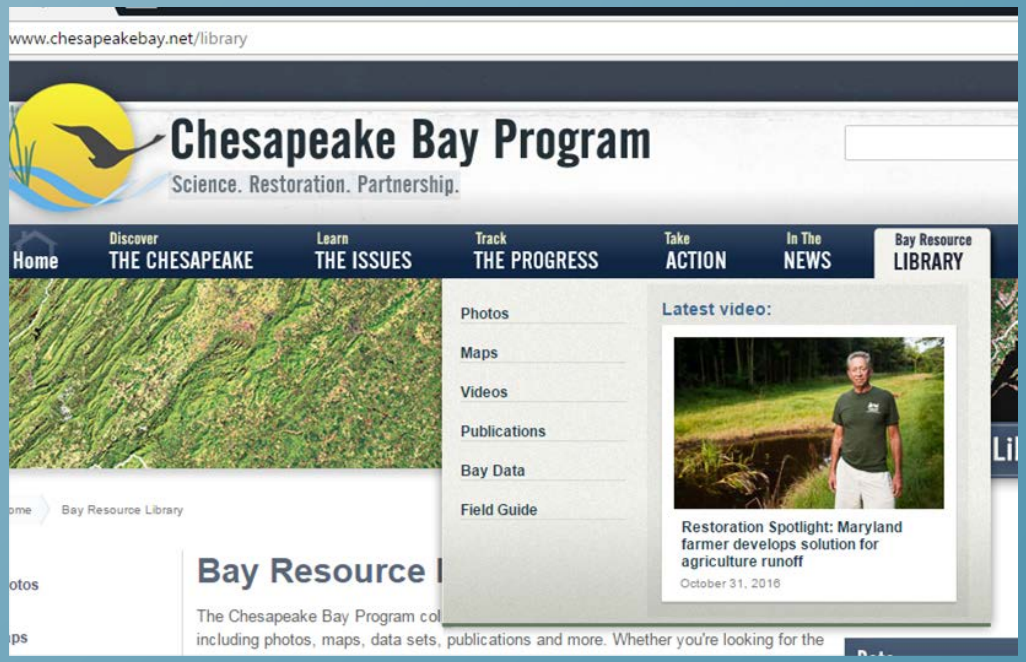
If you decide to go home, turn to PAGE 10.

If you climb the fence to get inside, turn to PAGE 6.

OUTREACH

- *Guided by VEVA use survey, outreach will include development of narrative materials, presentations, webinars and/or recorded demos*





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