



Coastal Resiliency Considerations in Land Preservation Targeting

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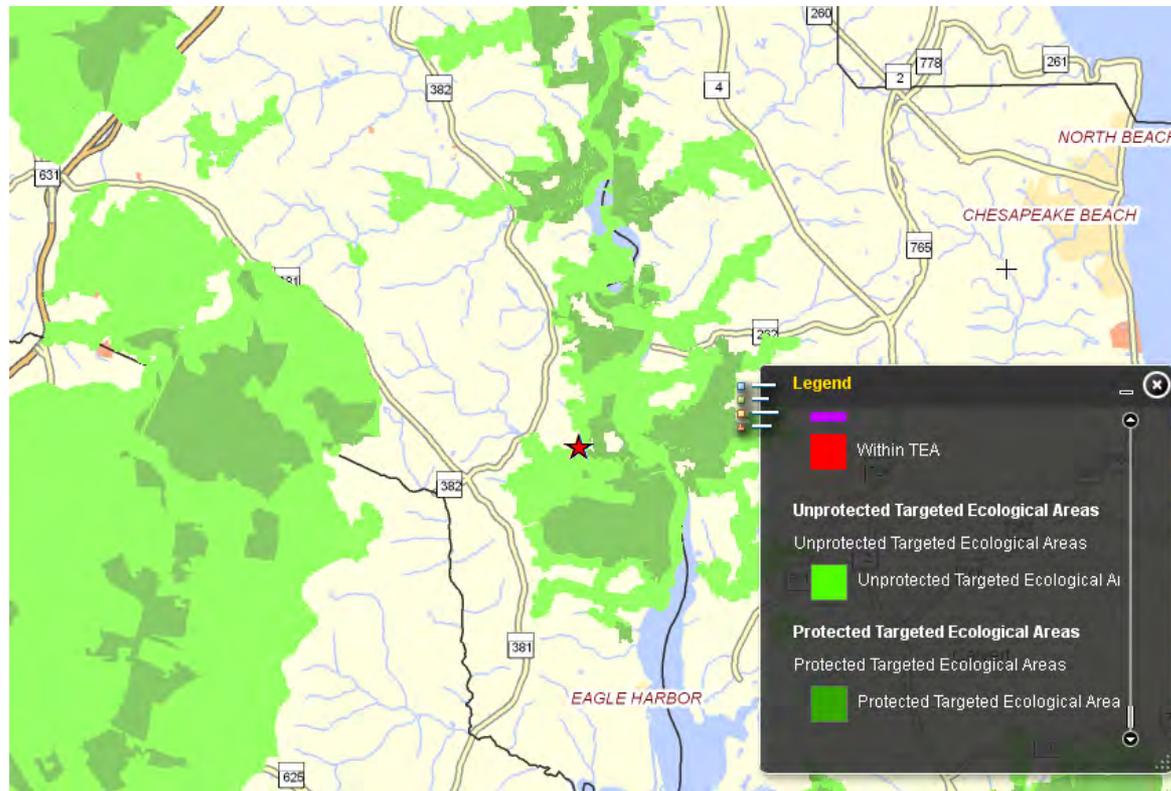
Kelly Collins Choi

Chesapeake & Coastal Service, DNR

Targeting Land Conservation



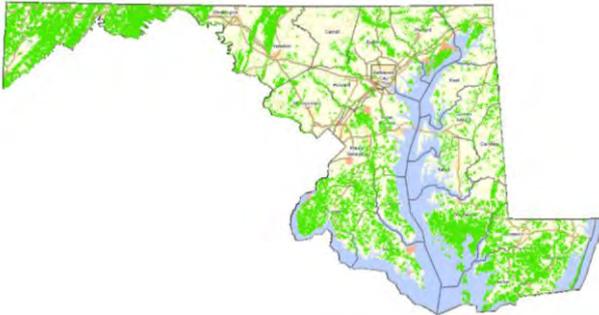
Targeted Ecological Areas are the most ecologically important areas in the State



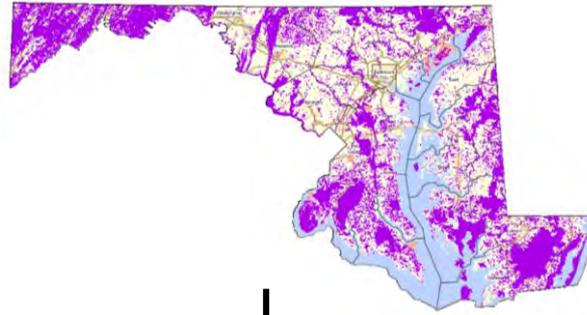
Program Open Space State Side uses these Areas to Target our Acquisitions

Targeted Ecological Areas

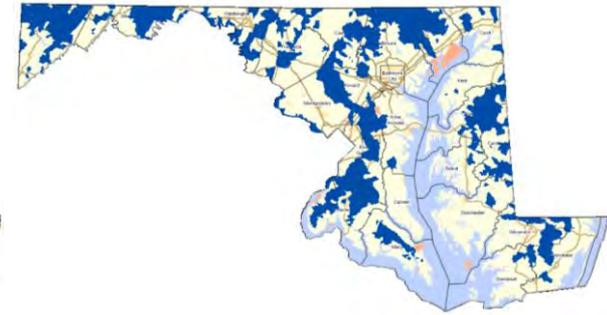
Green Infrastructure
and Important Forests



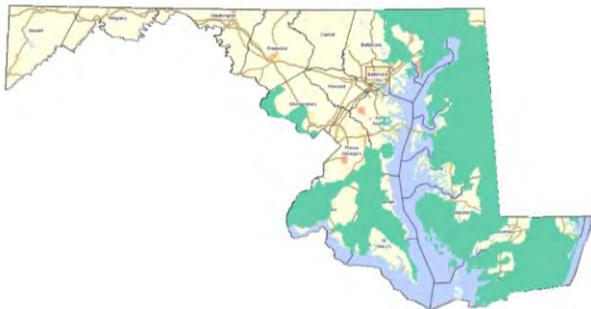
Wildlife and Rare
Species Habitat



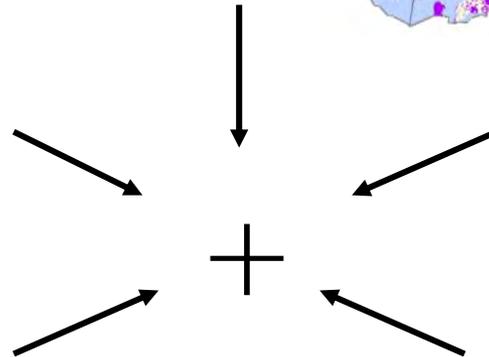
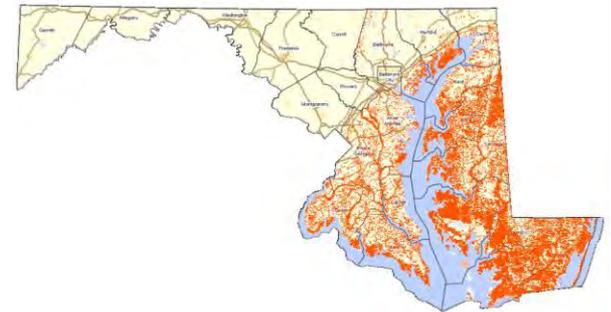
Nontidal Streams and
Fisheries



Tidal Fisheries, Bay and
Coastal Ecosystems



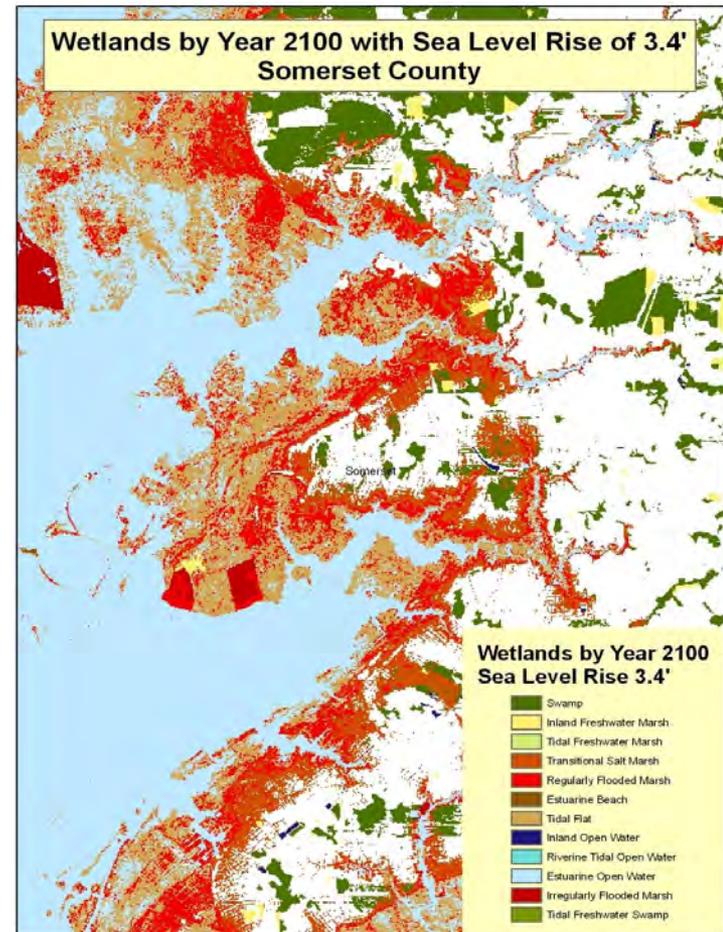
Wetland Adaptation Areas



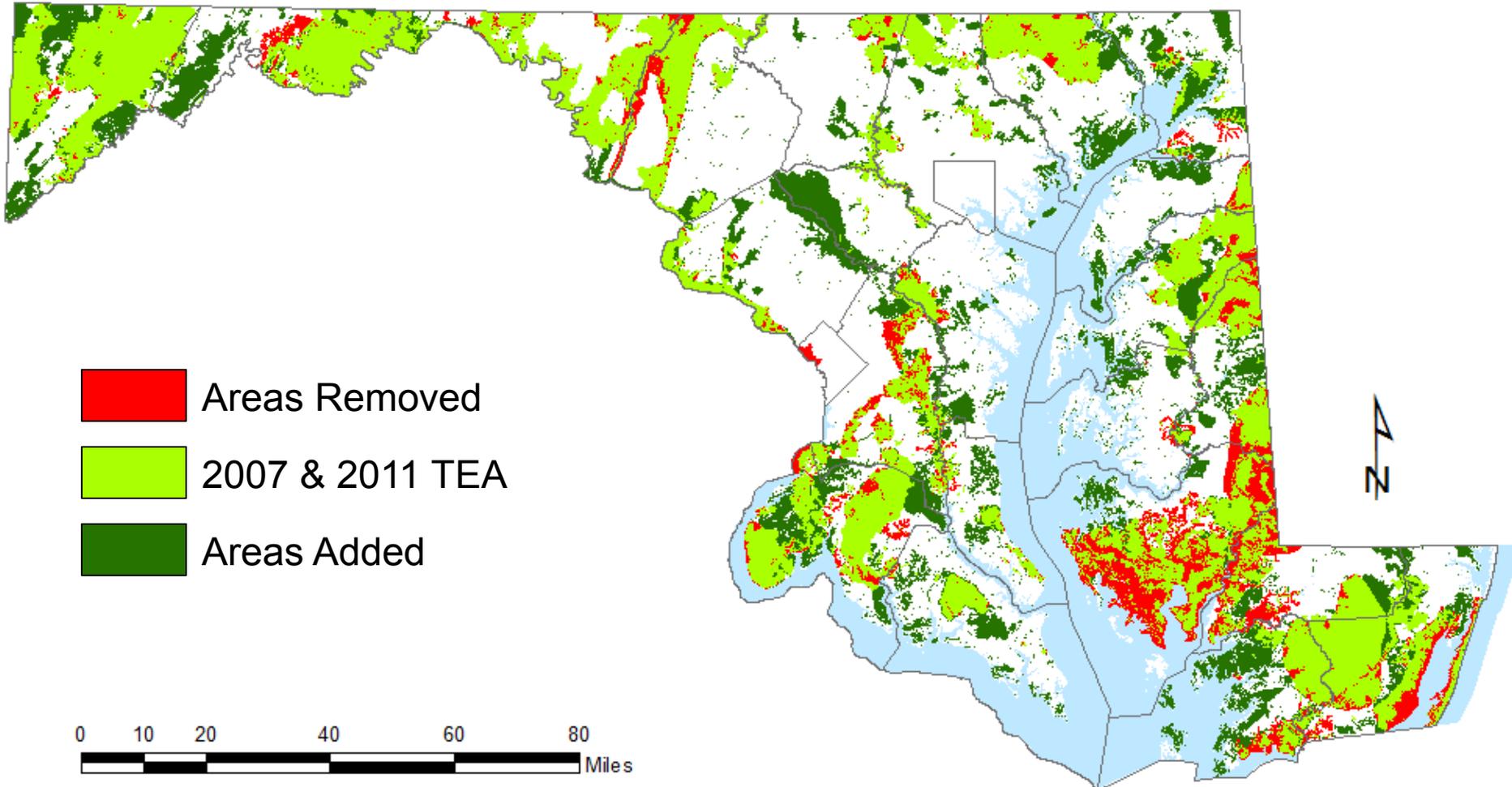
Climate Considerations in Targeting

Remove areas subject to sea-level inundation within 0-2 ft elevation

Include areas important for habitat resilience to climate change



2007 vs. 2011 TEAs

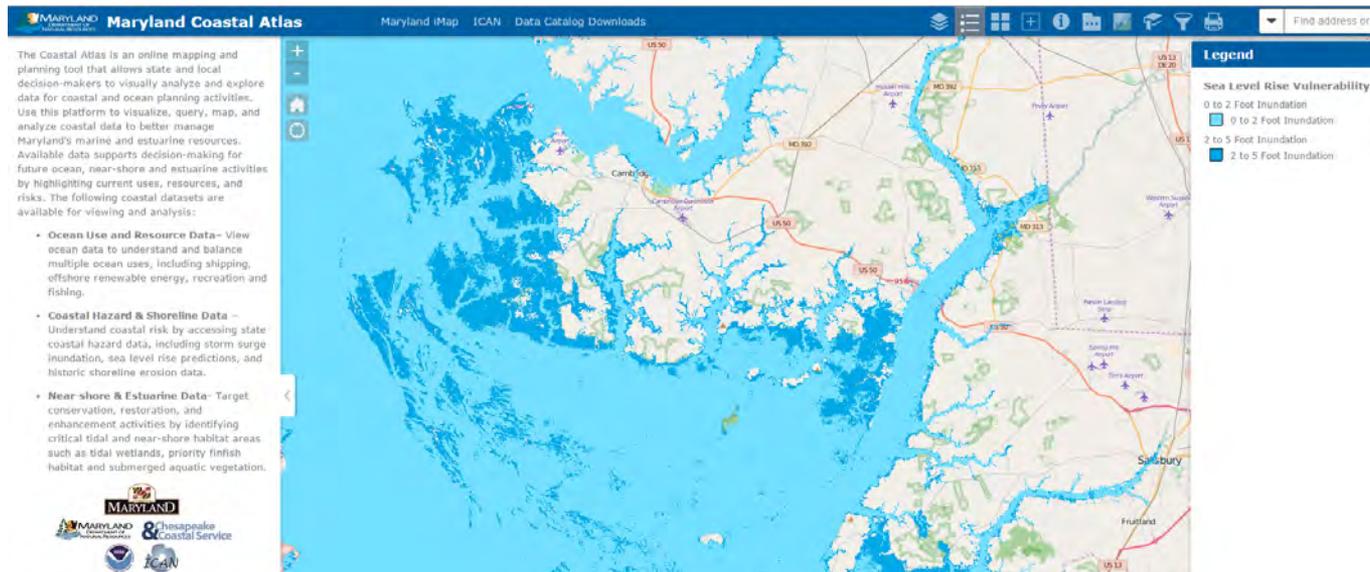


Maryland's Coastal Atlas



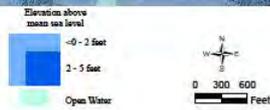
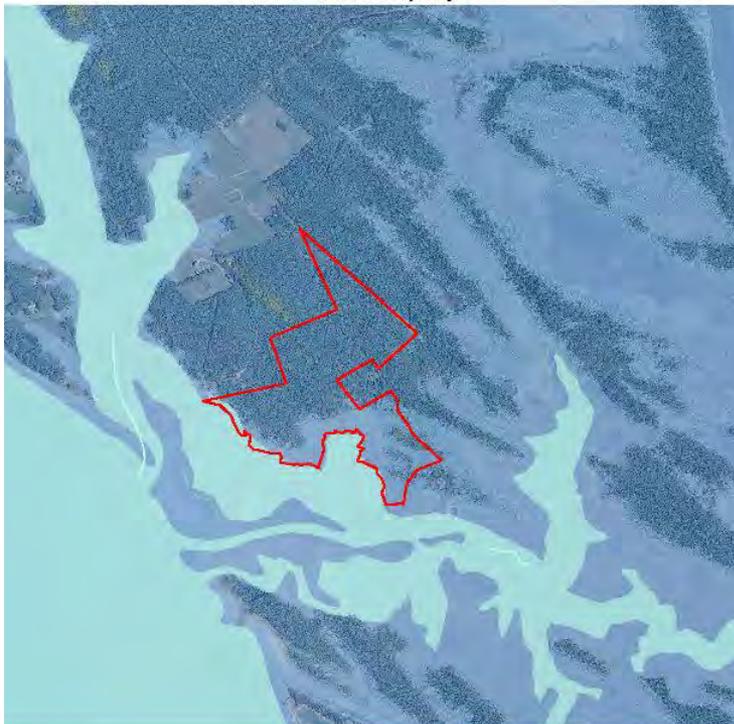
Climate Change Data Layers:

- Sea Level Rise Vulnerability
- Storm Surge Areas
- Wetland Adaptation Areas
- Coastal Resiliency Assessment
- Historical Shorelines/Shoreline Rates of Change
- Shoreline Inventory
- Erosion Vulnerability Assessment
- 100 & 500 Yr Flood Areas



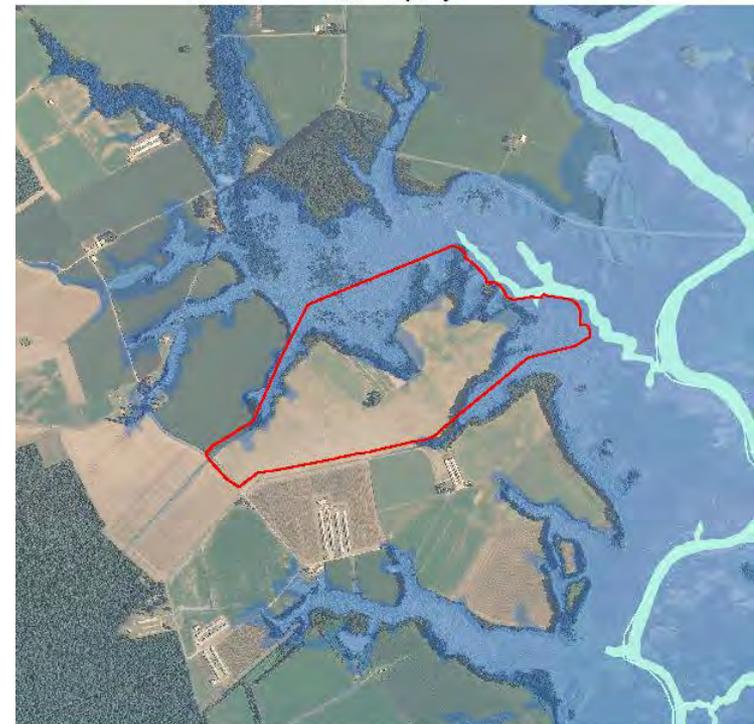
Sea-Level Rise Inundation

Program Open Space
Dorchester County



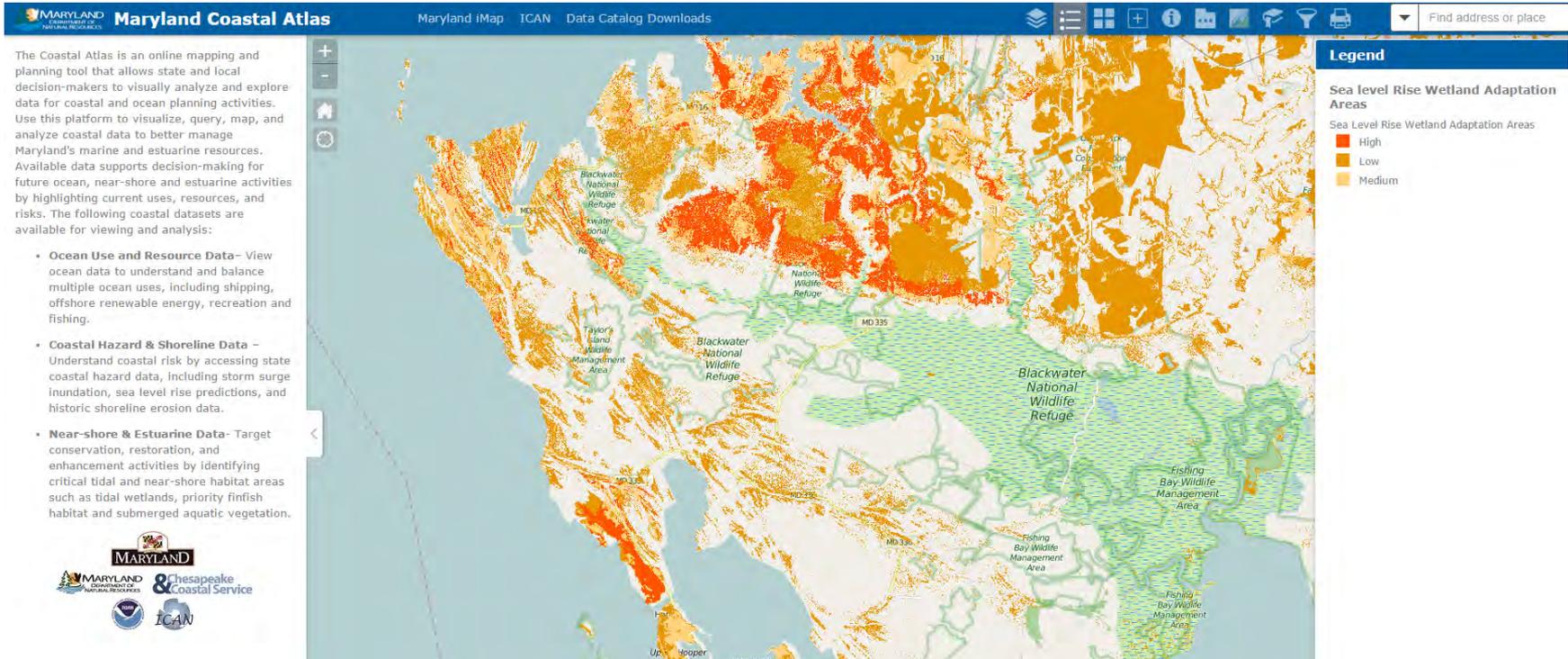
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DNR April 2015

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Wetland Adaptation Areas



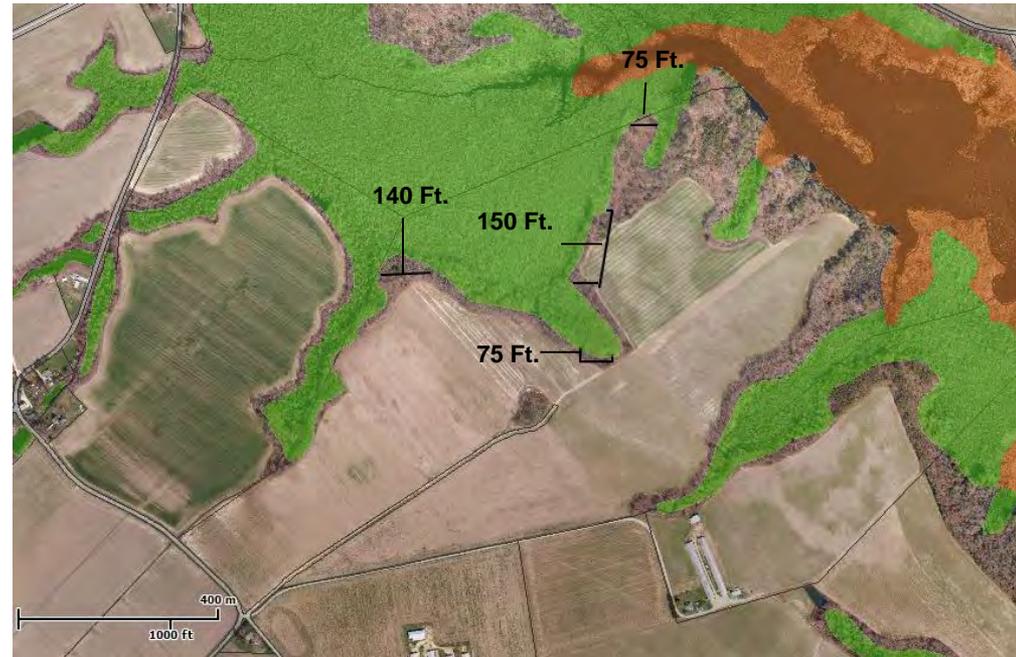
- GIS model indicating important future wetland habitats due to in-land migration
- >5 acres = trigger for Coastal Resilience Easement

Coastal Resilience Easement



Easement Provisions:

- Development setbacks in areas subject to sea-level rise inundation by 2050
- Buffers to protect high priority Wetland Adaptation Areas
- Impervious surface limits to reduce runoff and pollution due to increased storm events
- Grantee review of shoreline stabilization projects



-  Palustrine Wetlands
-  Estuarine Wetlands
-  Wetland Adaptation Buffers

Resilience Action Plan



Management Plan Provisions:

- Wetland/hydrologic restoration
- Living shoreline projects
- Invasive species management
- Environmental hazard management and guidance on Coast Smart Construction Codes
- Removal of barriers to wetland migration
- Documentation of vulnerable historic and cultural resources



Living
Shoreline:
Before &
After

