CHESAPEAKE BAY COMPREHENSIVE WATER RESOURCES AND RESTORATION PLAN - UPDATE

Update to Chesapeake Bay Program Habitat GIT

November 8, 2017

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."

RECAP - GOAL

Provide a single, comprehensive and integrated restoration plan that would assist with implementation of the Chesapeake Bay Agreement by:

- Effectively and efficiently engaging Bay stakeholders to identify problems, needs and opportunities in the watershed and avoid duplication of ongoing or planned actions by others.
- Identifying actions by other federal, state, and local government agencies and NGOs in the watershed to address problems outside of USACE mission areas.
- Determining where and how USACE mission areas could be utilized in the watershed to support the goals of the Chesapeake Bay Agreement.

VISION AND PURPOSE

"We envision an environmentally and economically sustainable AND RESILIENT Chesapeake Bay watershed with clean water, abundant life, conserved lands and access to the water, a vibrant cultural heritage, and a diversity of engaged citizens and stakeholders."

- Develop a comprehensive and strategic, integrated water resources plan to guide the implementation of projects that will assist in meeting the Chesapeake Bay Agreement.
- Identify areas for ecosystem restoration, protection or preservation that will assist in meeting the Chesapeake Bay Agreement.
- Identify at least one project in each state and D.C. that can be considered for implementation or technical assistance by the U.S. Army Corps of Engineers and supports the Bay Agreement.
- Identify new policies or programs or improve upon existing policies and programs that will help achieve an environmentally and economically sustainable and resilient Chesapeake Bay watershed.

TARGETED GEOSPATIAL INVESTIGATIONS

1. Habitat restoration – riparian buffers, stream restoration, and fish passage for Eastern brook trout, resident, and anadromous fish plus oysters, and Submerged Aquatic Vegetation.
2. Wetland restoration - restoration and enhancement of tidal ad non-tidal wetlands, wetland restoration to benefit avian wildlife, and beneficial use of dredged material.
3. Connectivity – connectivity of healthy habitats to restoration opportunities and connectivity to socioeconomic resources.
4. Conservation of lands to promote watershed healthy, species, and socioeconomic benefits
5. Shorelines and streambanks – at risk shorelines and proximity to restoration opportunities
6. Hazardous and toxic contaminants

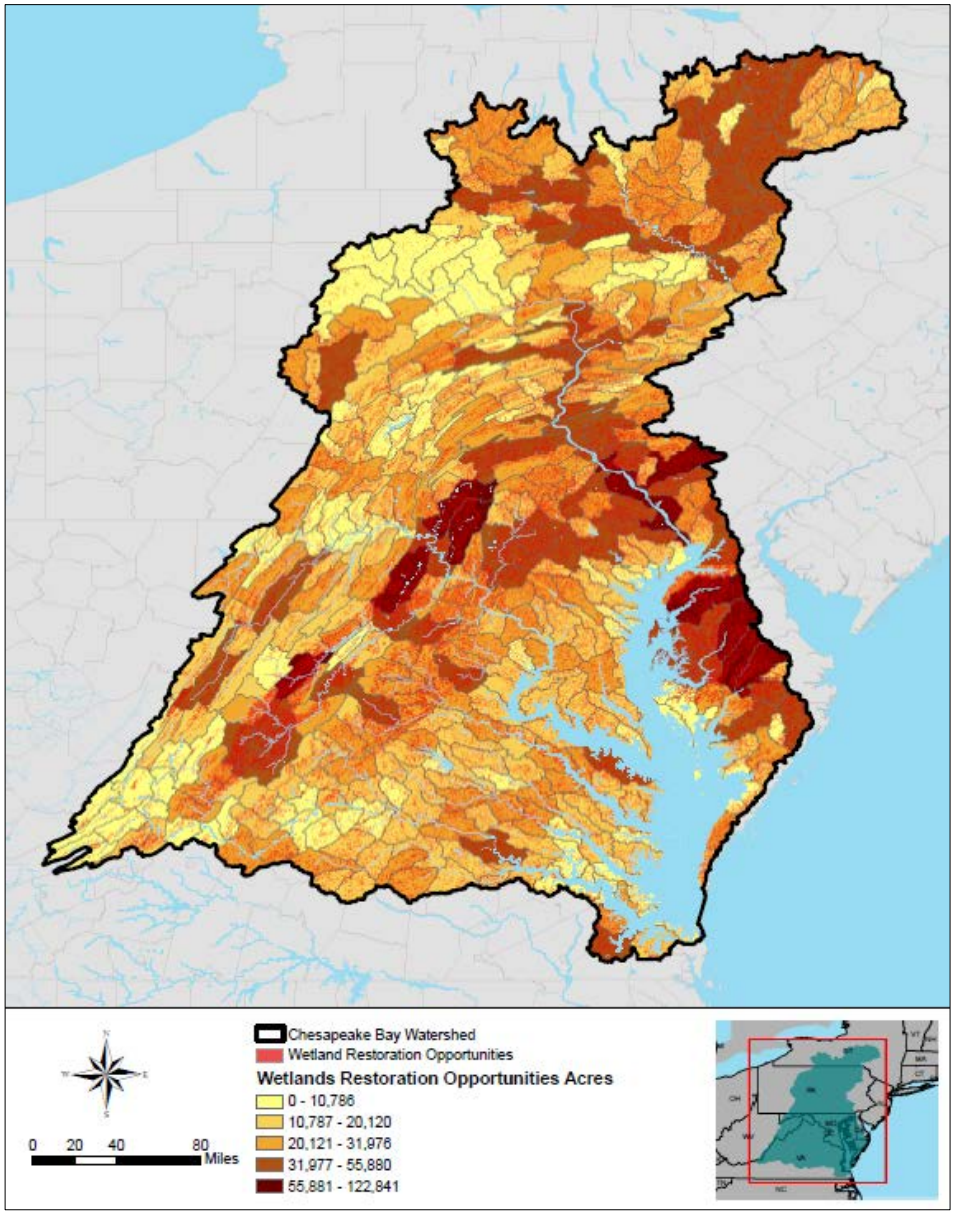
RESTORATION OPPORTUNITIES ANALYSIS

Example: Wetland Findings

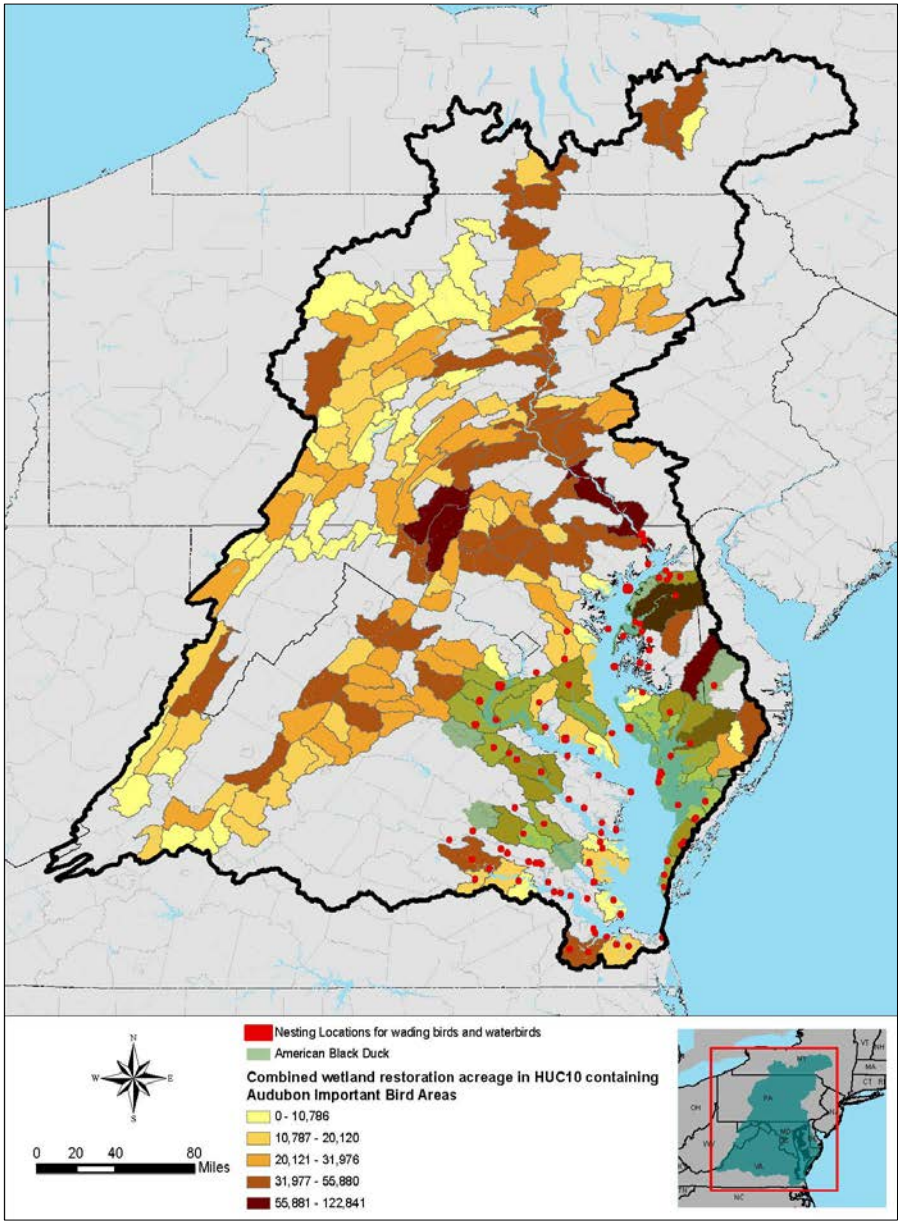
Purpose:
Identify tidal and non-tidal wetland restoration and enhancement opportunities.

Data Layers:

- *High resolution land cover data - collected in 2016 by the Chesapeake Bay Conservancy and provided by NFWF*
- *U.S. Geological Survey (USGS) 2011 Digital Elevation Model*
- *Chesapeake Bay Program (CBP) hydric soil layer*



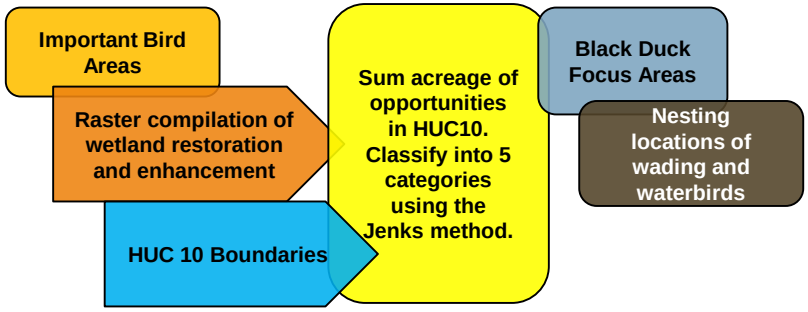
- Tidal and Non-Tidal Wetlands Restoration Opportunities.
- Total Acres by HUC10.

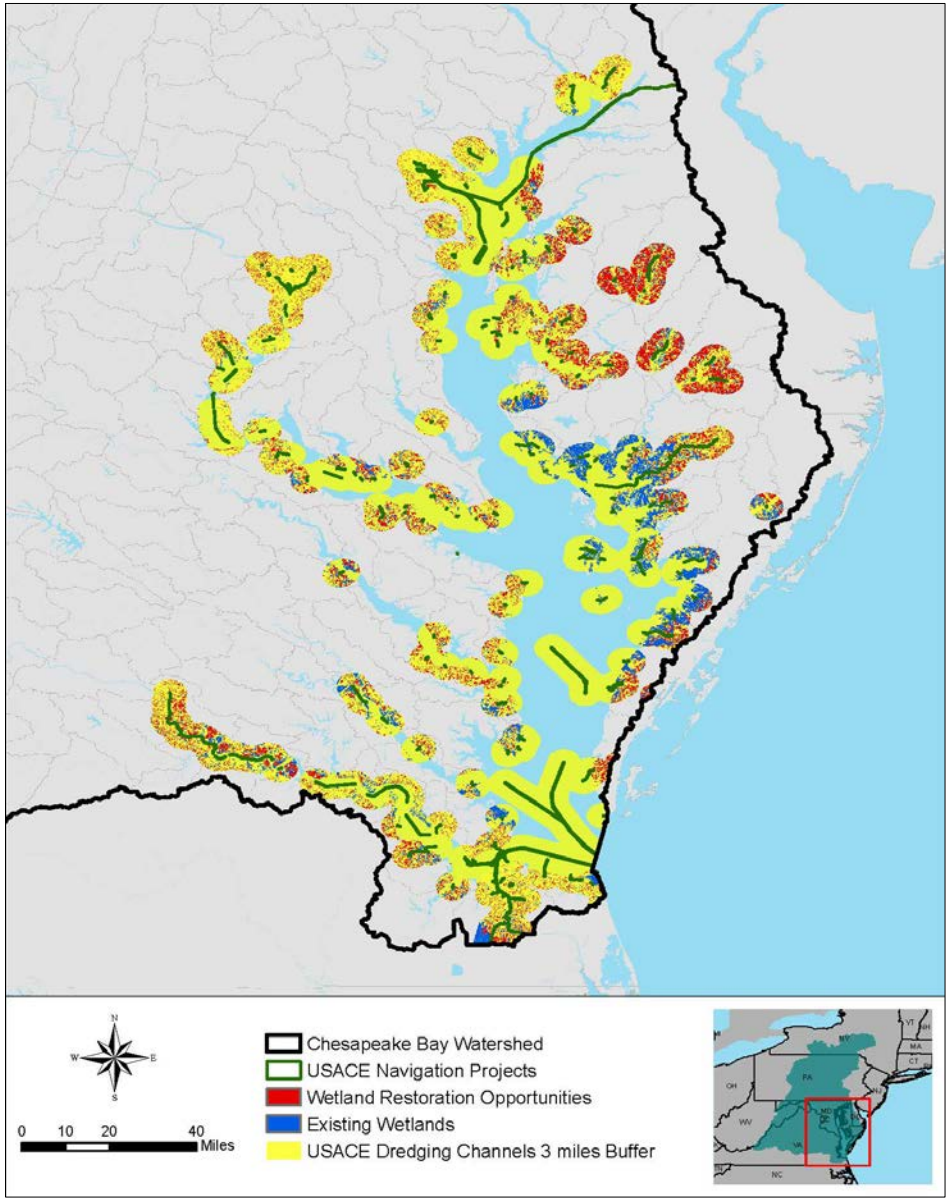


Wetland restoration opportunities that benefit avian wildlife.

Data layers:

- *Wetlands restoration compilation hotspot HUC10s*
- *The Center for Conservation Biology Nesting locations for wading birds and waterbirds*
- *Chesapeake Bay Program Black Duck Focus Areas*
- *Audubon Important Bird Areas*





Wetland restoration projects that used dredged material beneficially.

Data layers:

- *Federal navigation projects – dredged channels*
- *Wetlands restoration compilation*

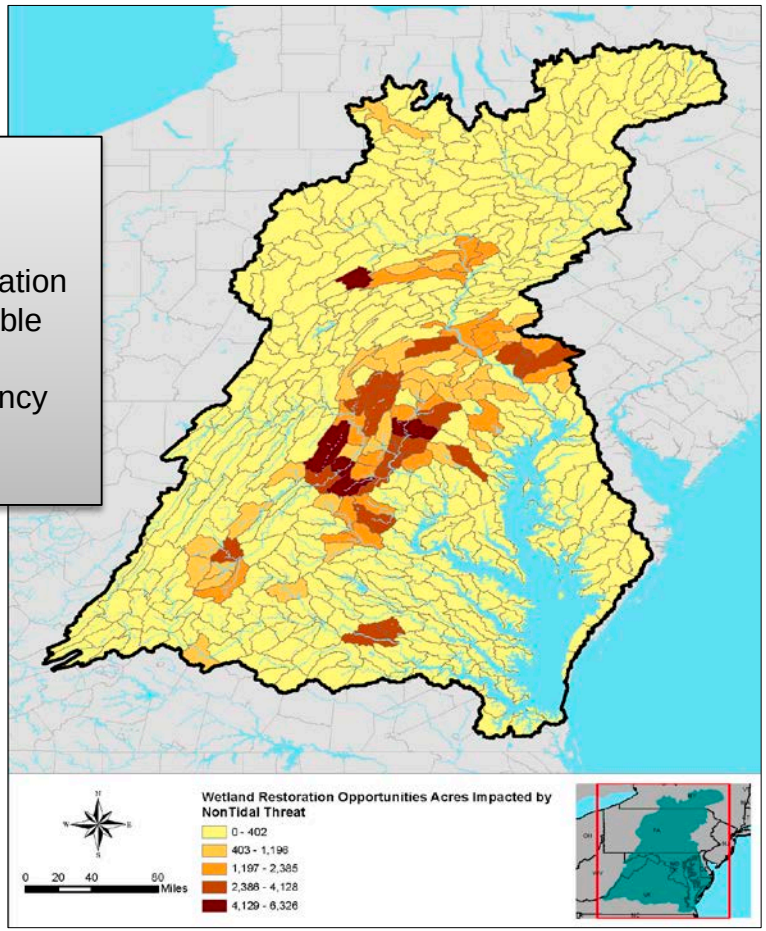
Buffered Navigation channels

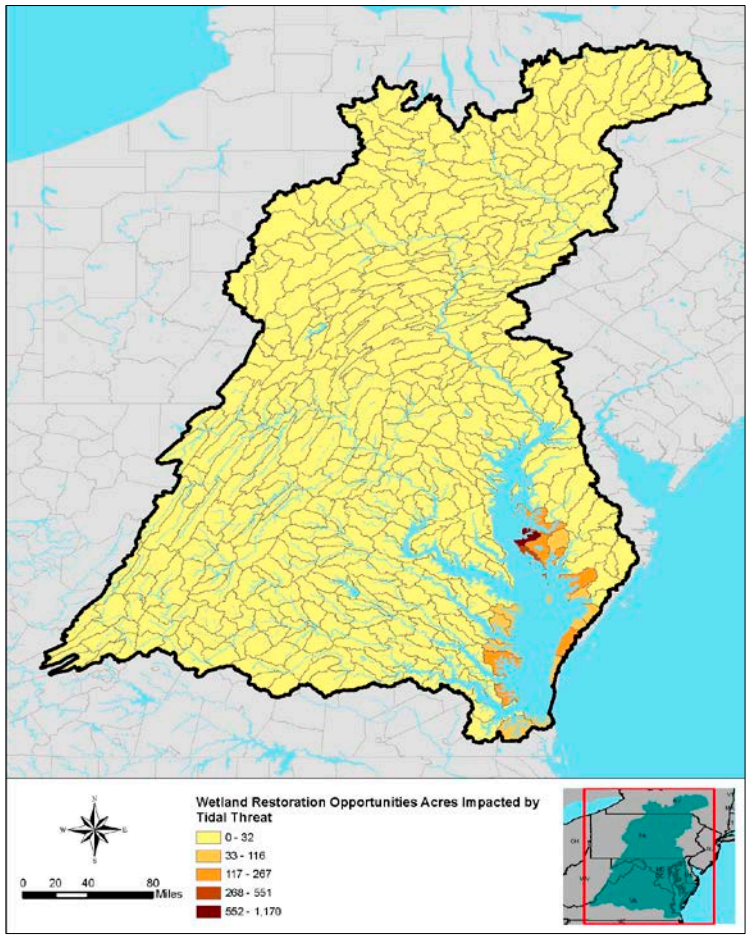
Raster compilation of wetlands restoration and enhancement

Potential wetlands restoration and enhancement projects that could utilize dredged material.

Threats Analysis of Wetlands

Threats:
- ✓ Sea Level Rise
- ✓ Population Growth/Urbanization
- ✓ Eroding/vulnerable shorelines
- ✓ Flooding frequency





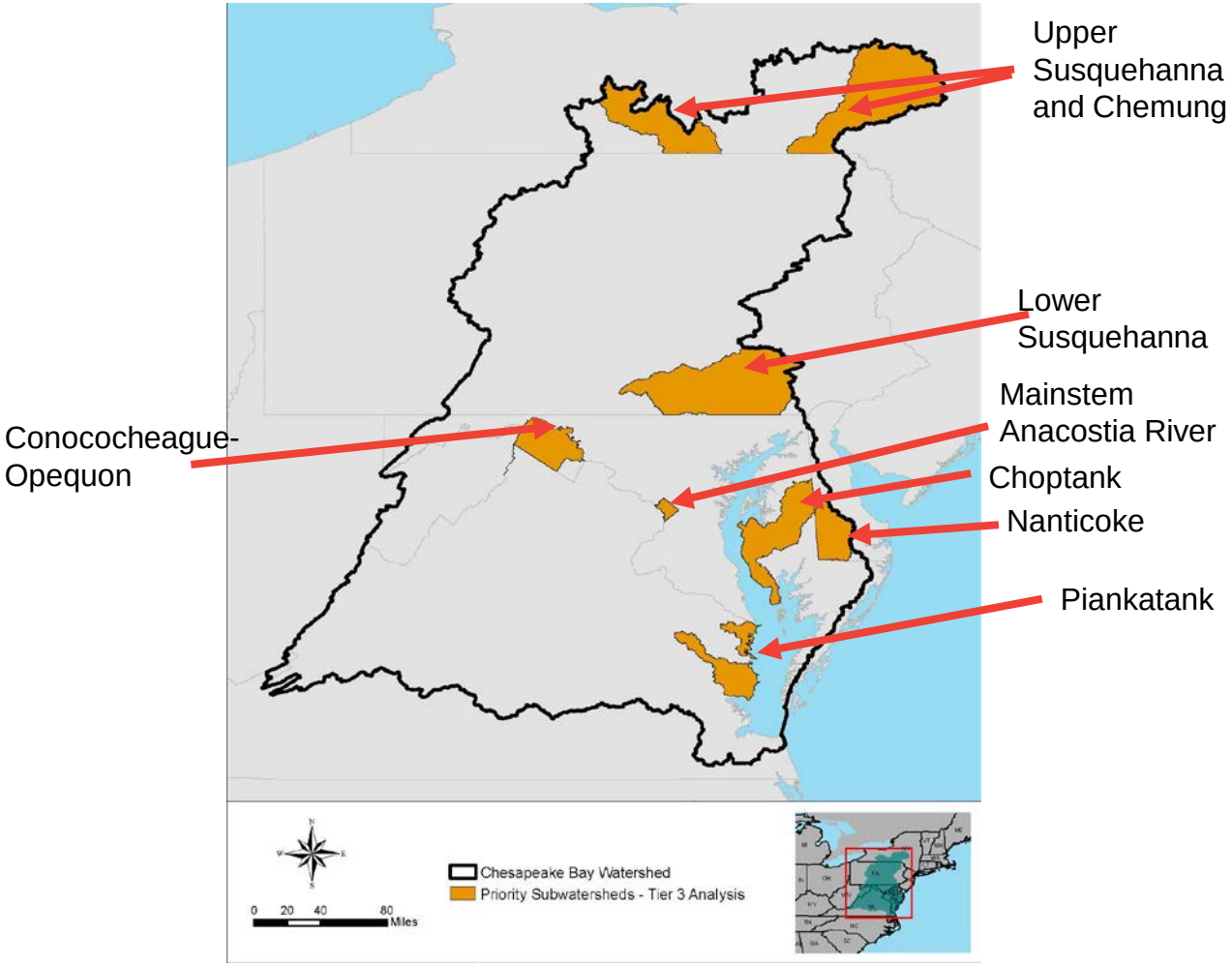
Data Layers:
- o *Threats Analysis*
- o *Wetlands restoration compilation*

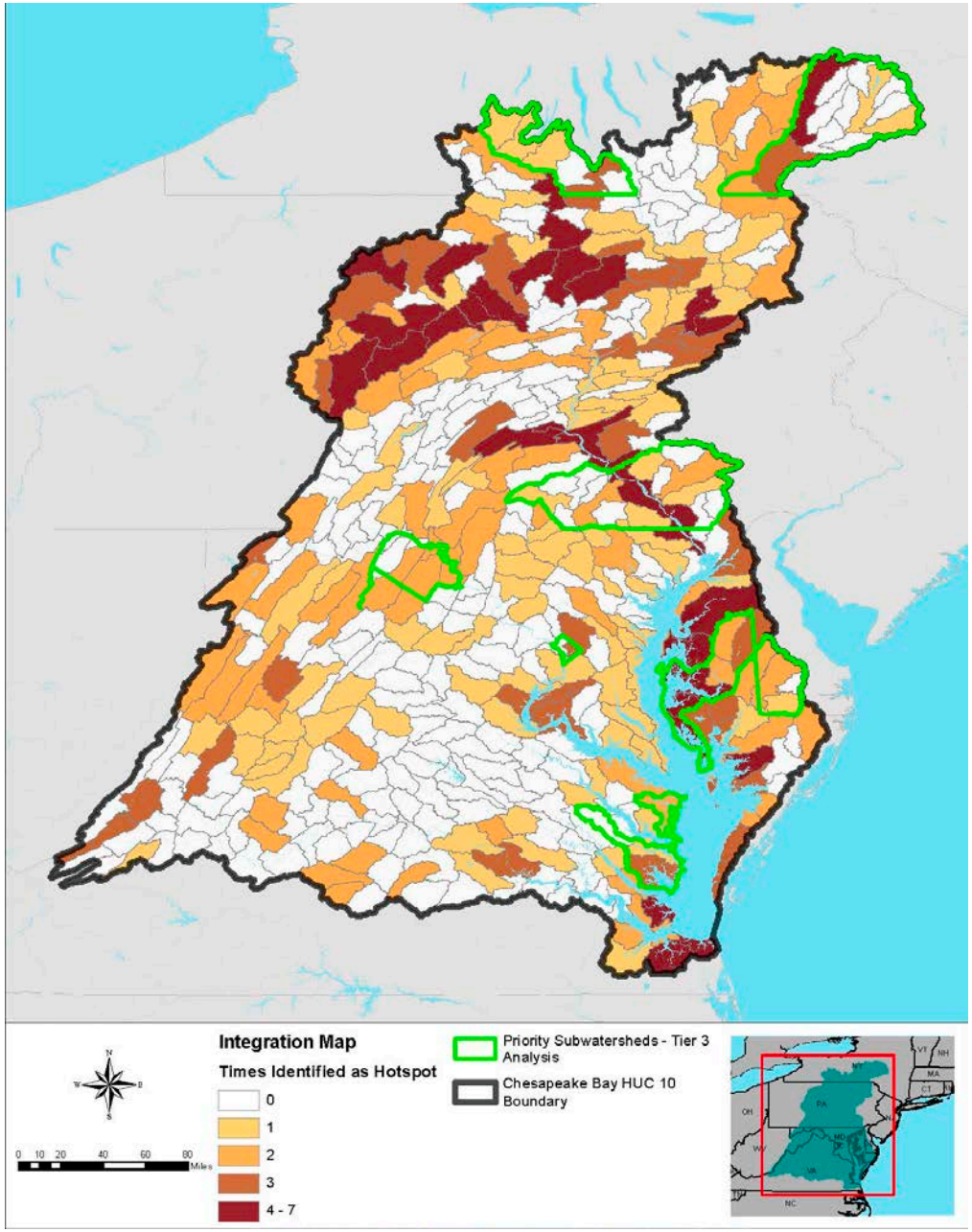
Raster compilation of wetlands restoration and enhancement

Threats Analysis

Restoration and enhancement opportunities that area at high risk for future threats

STATE SELECTED INITIAL SUBWATERSHEDS FOR DETAILED PLANS





Chesapeake Bay Comprehensive Water Resources and Restoration Plan Watershed Assessment

PRELIMINARY SYNTHESIS OF FINDINGS

- Each targeted geospatial investigation identified HUC10 hotspots.
- These “hotspots” address multiple outcomes and are focus areas for action.
- Restoration is not recommended to be limited to focal hotspots or initial state selected watersheds.

PRELIMINARY FINDINGS, NEEDS AND OPPORTUNITIES

- 25 Top Tier high prioritized HUC's identified with broad and multi-benefit opportunities.
- Opportunities for USACE Implementation identified- Shoreline habitat restoration, Wetlands, Streams, Oysters, SAV- Section 510, CAP 206, 103, 14 (if public infrastructure is at risk) GI, CG.
- Limitations to where USACE can implement- opportunities identified for stakeholders as well- riparian buffers, acid mine drainage, water quality, land conservation, Remediate and Control Toxic Contaminants - USACE could offer PAS, IIS or military planning if military lands.
- Identified opportunities Bay-wide to meet Bay Agreement Goals
- Bay Agreement identifies who and what- CBCP helped determined where.

STAKEHOLDER COORDINATION

- A public workshop and two stakeholder webinars have been held in the past year; regular coordination with CBP Cross-GIT group
- Current requests:
  1. Paragraph supporting state-selected subwatersheds for detailed plans
  2. Potential projects for incorporation into 510 Plan
  3. Identification of any existing plans within the priority subwatershed
     - MS4 plans
     - WIPs
     - State Wildlife Plans
     - Subwatershed plans

PATH FORWARD

Fall 2017 – Complete Integration Analyses and Report Prep
Winter 2017-2018 – Internal and Public Review
Spring 2018 – Revisions
Summer 2018 – Final Report