

CHESAPEAKE BAY COMPREHENSIVE WATER RESOURCES AND RESTORATION PLAN

Update to Chesapeake Bay Program Management Board
June 14, 2018

"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."

Chesapeake Bay Comprehensive
Water Resources and Restoration Plan



US Army Corps
of Engineers
Norfolk District



US Army Corps
of Engineers
Baltimore District



AGENDA

- Background
- Results
- Findings and Recommendations
- Budget and Schedule
- Next Steps



BACKGROUND – GOAL AND OBJECTIVES

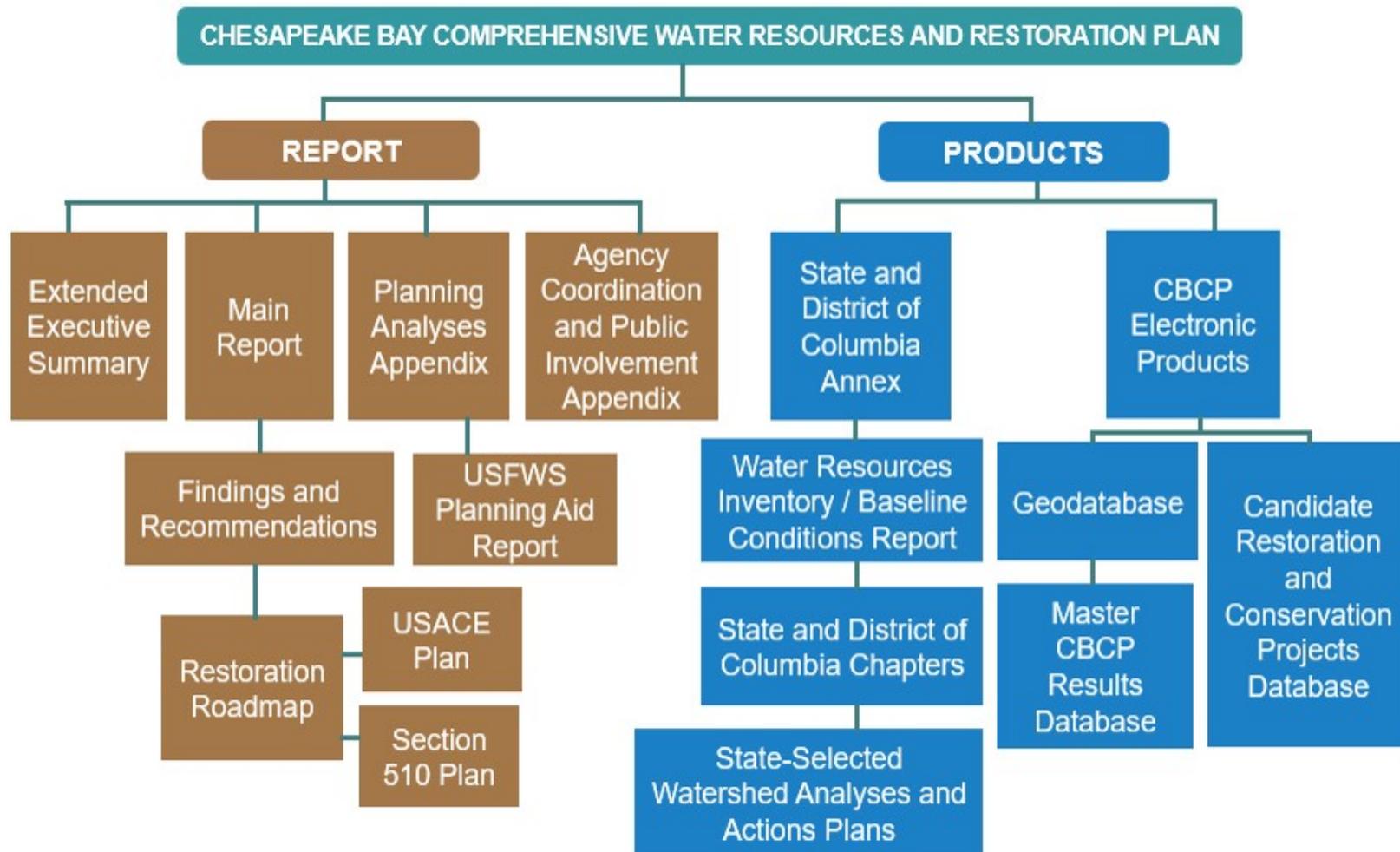


GOAL: Provide a **single, comprehensive and integrated restoration plan** that would assist with implementation of the Chesapeake Bay Agreement.

OBJECTIVES:

- 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.

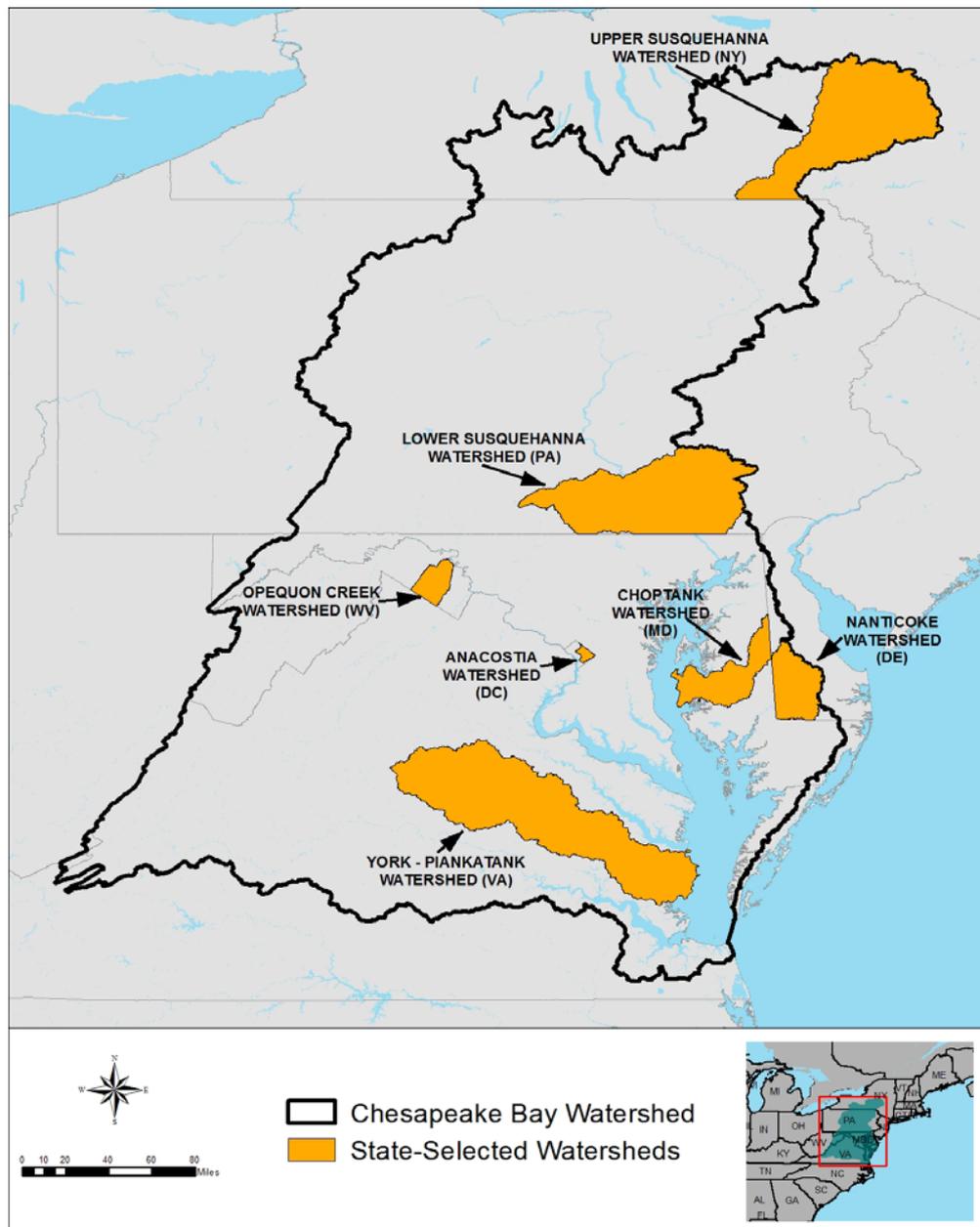
CBCP REPORT AND PRODUCTS



MULTI-SCALAR GEOSPATIAL ANALYSES

❖ Sub-watershed Action Plans

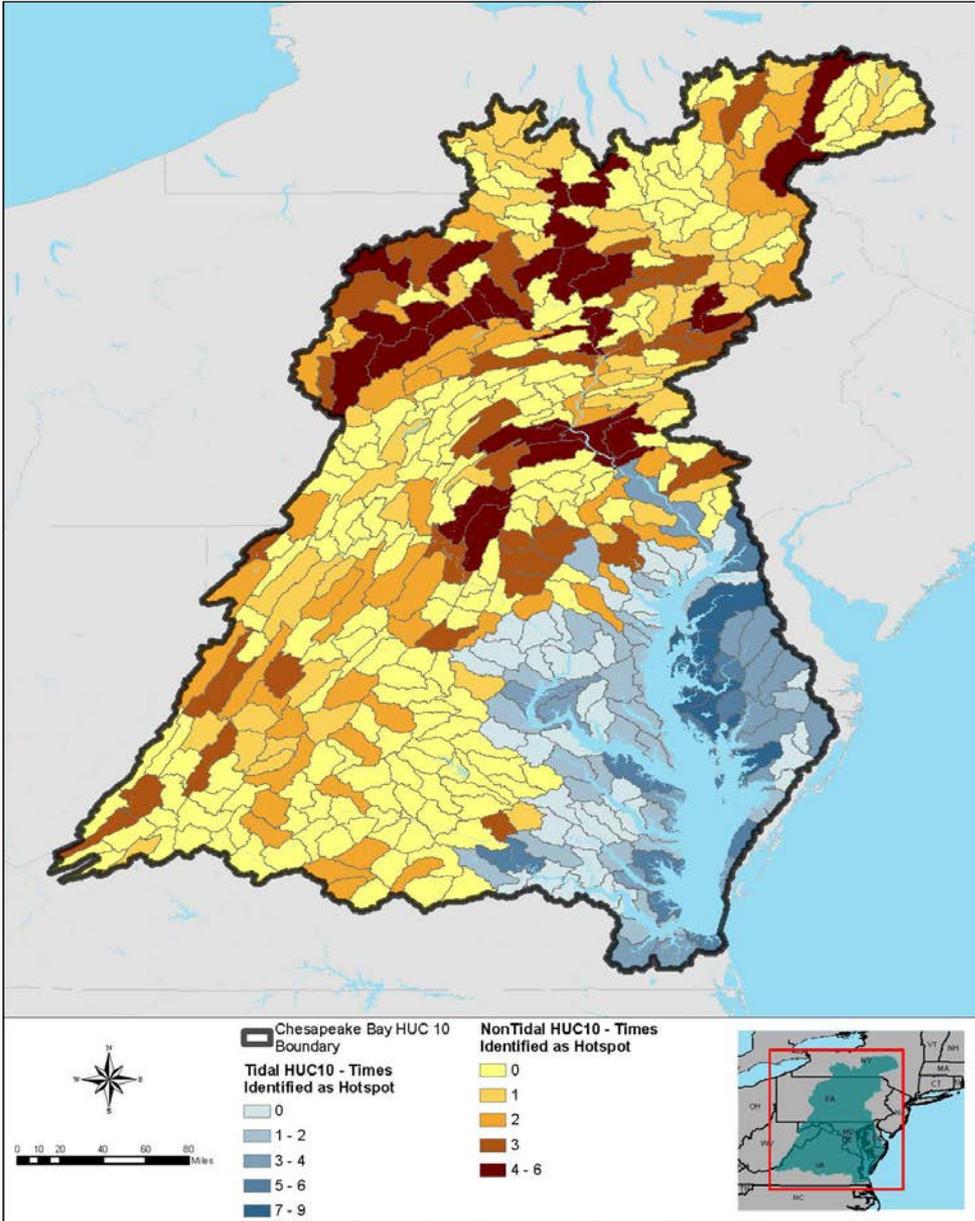
- ❖ Identified by each State and D.C.
- ❖ Number of Action Plans limited only by 2-year timeframe of Comp Plan
- ❖ Action Plans identify projects to then be matched with funding source(s)
- ❖ **Critical element to achieving maximum implementation and collaboration**



RESULTS



RESTORATION ROADMAP



- ❖ Chesapeake Bay Agreement 2014 goals and benefits
- ❖ Sub-watersheds evaluated based on opportunity to contribute to each goal(s) = co-benefits
 - ❖ Stream Restoration
 - ❖ Fish Passage
 - ❖ Wetland Restoration
 - ❖ Riparian Buffers
 - ❖ ...and More....
- ❖ Comp Plan products used by many stakeholders toward shared goals
 - ❖ Opportunities exist in EACH sub-watershed

RESTORATION ROADMAP: DETAILED INFORMATION

HUC Name	Management Measure	Area of Opportunity	Cost Range	Benefit	Ecosystem Goods and Services	Who could Implement?	Threats
Lower Choptank	Tidal Wetland Restoration	Number of acres	Cost range per acre	<p>*Provide habitat to hundreds of fish, birds, mammals and invertebrates.</p> <p>*Trap polluted runoff and improve water quality.</p>	Hazard mitigation (reduced risks to property, infrastructure, human safety); soil retention.	USACE, USDA, TNC, MDNR, USFWS, DU, EPA, DOI	57 acres highly threatened (54%) - coastal storm flooding; eroding shorelines; more frequent flooding; sea level rise

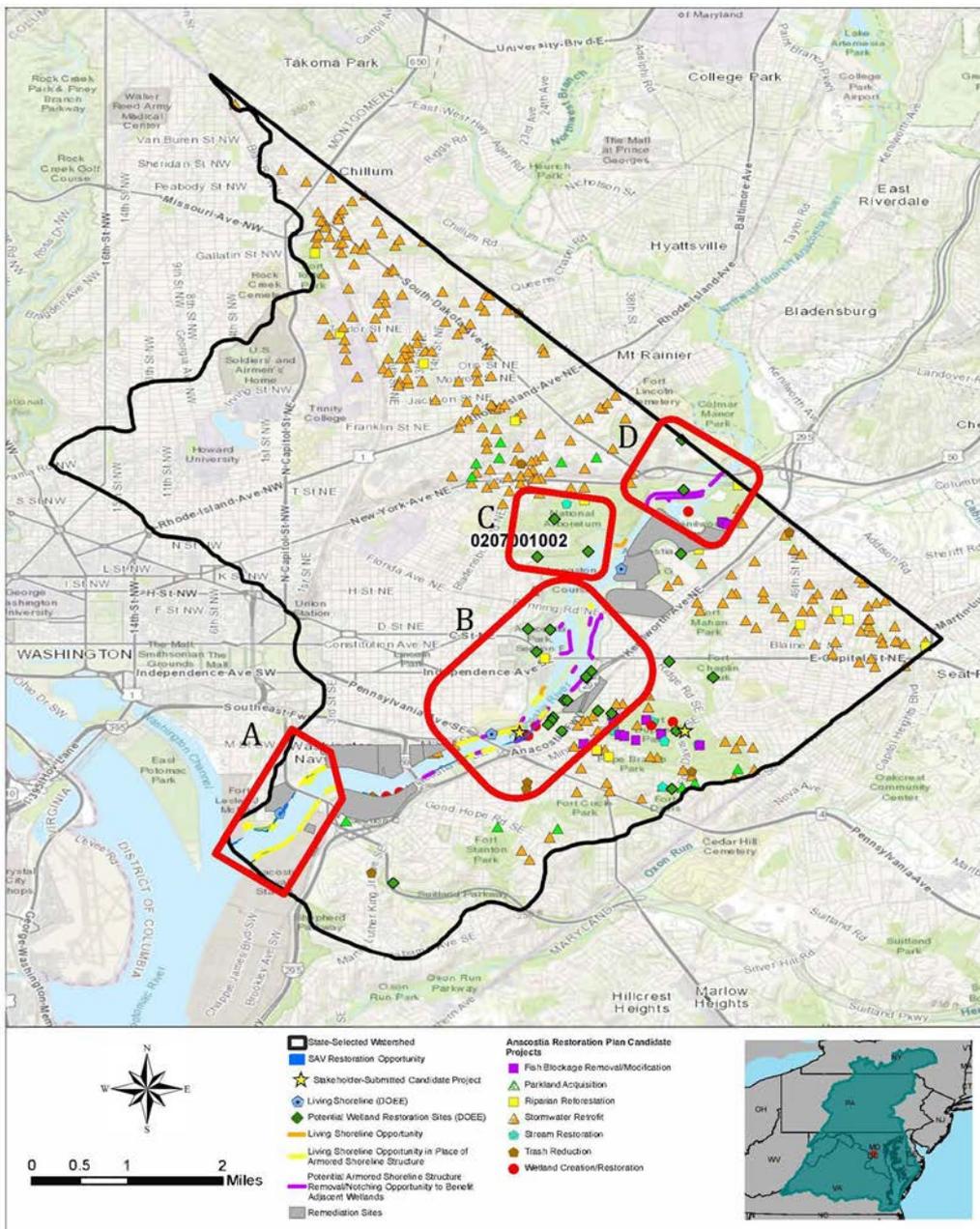
Area in Public Land	Rated high for other restoration analyses	Sequencing/ Dependencies	Bay Agreement Goal	Other Agency Plans and Priorities	Presence of Federally Listed Species
Number of acres and % in public ownership	Yes; 9 areas of opportunity - oysters, SAV, eroding shorelines, tidal wetlands, non-tidal wetlands, dredged material, avian wildlife, marsh migration, streams	<p>*Within 3 mile buffer of a navigation channel.</p> <p>*Dredged material should be an option.</p> <p>*Acres in public land should be a focus.</p> <p>*Area ranks high for co-benefit.</p>	<p>*Create & reestablish 85,000 acres to tidal and non-tidal wetlands</p> <p>*Enhance function of 150,000 acres of degraded wetlands</p>	Audubon Important Bird Area; presence of nesting for wading birds and waterbirds	yes

STATE-SELECTED WATERSHED ACTION PLAN DEVELOPMENT

1. CBCP baywide analyses results – identify problems and opportunities
2. Incorporate local GIS datasets
3. Review of existing projects, ongoing efforts, planned projects, reports, & studies



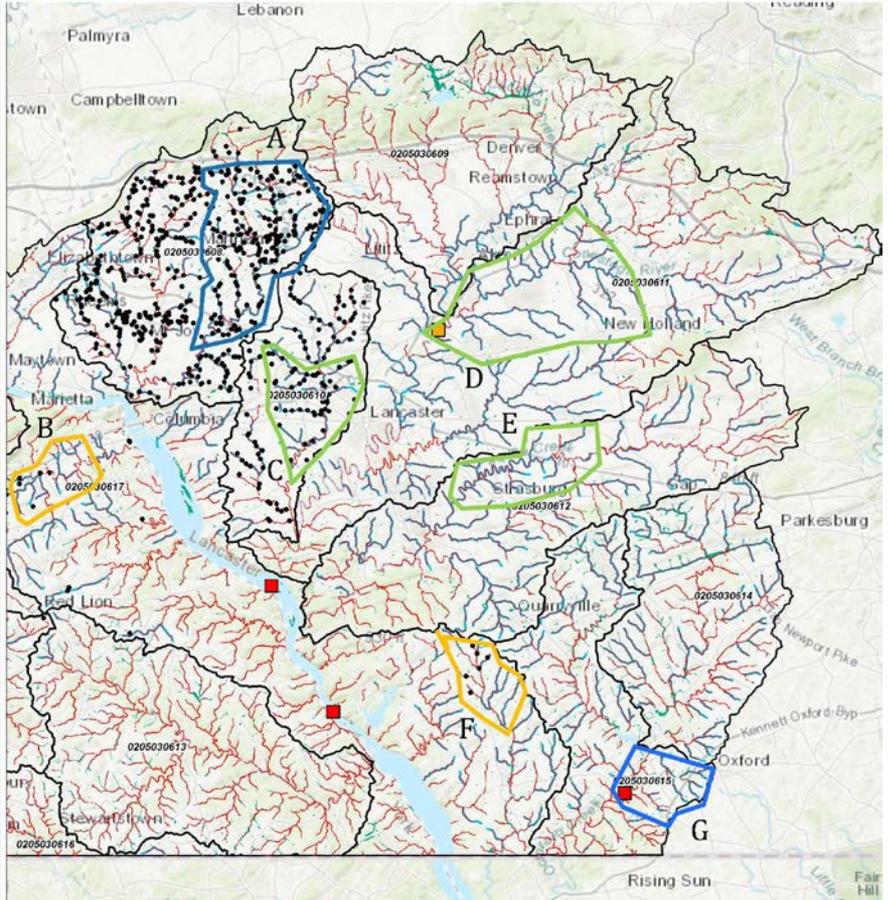
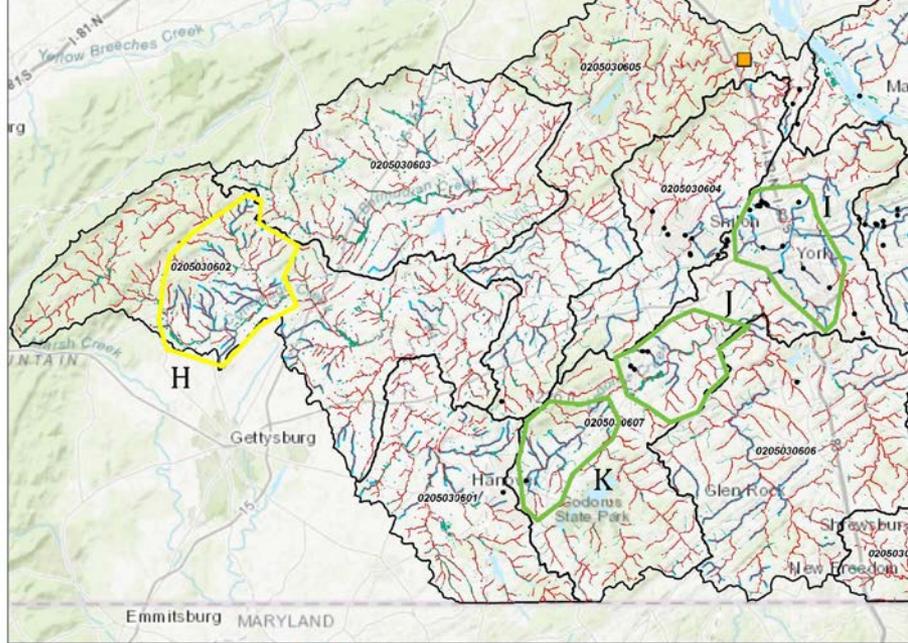
ANACOSTIA RIVER (DC):¹⁰ Proposed Project Identification Focus Areas



Anacostia Watershed Project Areas				
Activity	A	B	C	D
Conservation				
Oyster Restoration				
Stream Restoration			X	
Riparian Buffer Restoration / Reforestation		X	X	X
SAV Restoration	X	X		
Wetland Creation / Restoration		X	X	X
Living Shoreline	X	X		
Removal of Fish Blockages		X		X
Stakeholder-Submitted Candidate Project		X		
Trash Reduction		X		
Armored Shoreline Structure Removal		X		X
Stormwater Retrofit		X	X	X
Parkland Acquisition				

Lower Susquehanna River Watershed Project Focus Areas

Activity	A	B	C	D	E	F	G	H	I	J	K
Riparian Buffer Restoration	X	X	X	X	X	X	X	X	X	X	X
Wetland Restoration	X	X	X	X	X	X	X	X	X	X	X
Wetland Conservation	X	X	X	X	X	X	X	X	X	X	X
Removal of Fish Blockages				X			X				
Stakeholder-Submitted Candidate Project	X	X	X			X			X	X	X



- Wetland Restoration Opportunity
- Wetland Conservation Opportunity
- Riparian Buffer Opportunity
- State-Selected Watershed
- HUC 10 Boundary
- Stakeholder Submitted Candidate Project
- Dams Impeding Fish Passage Tier 1
- Dams Impeding Fish Passage Tier 2

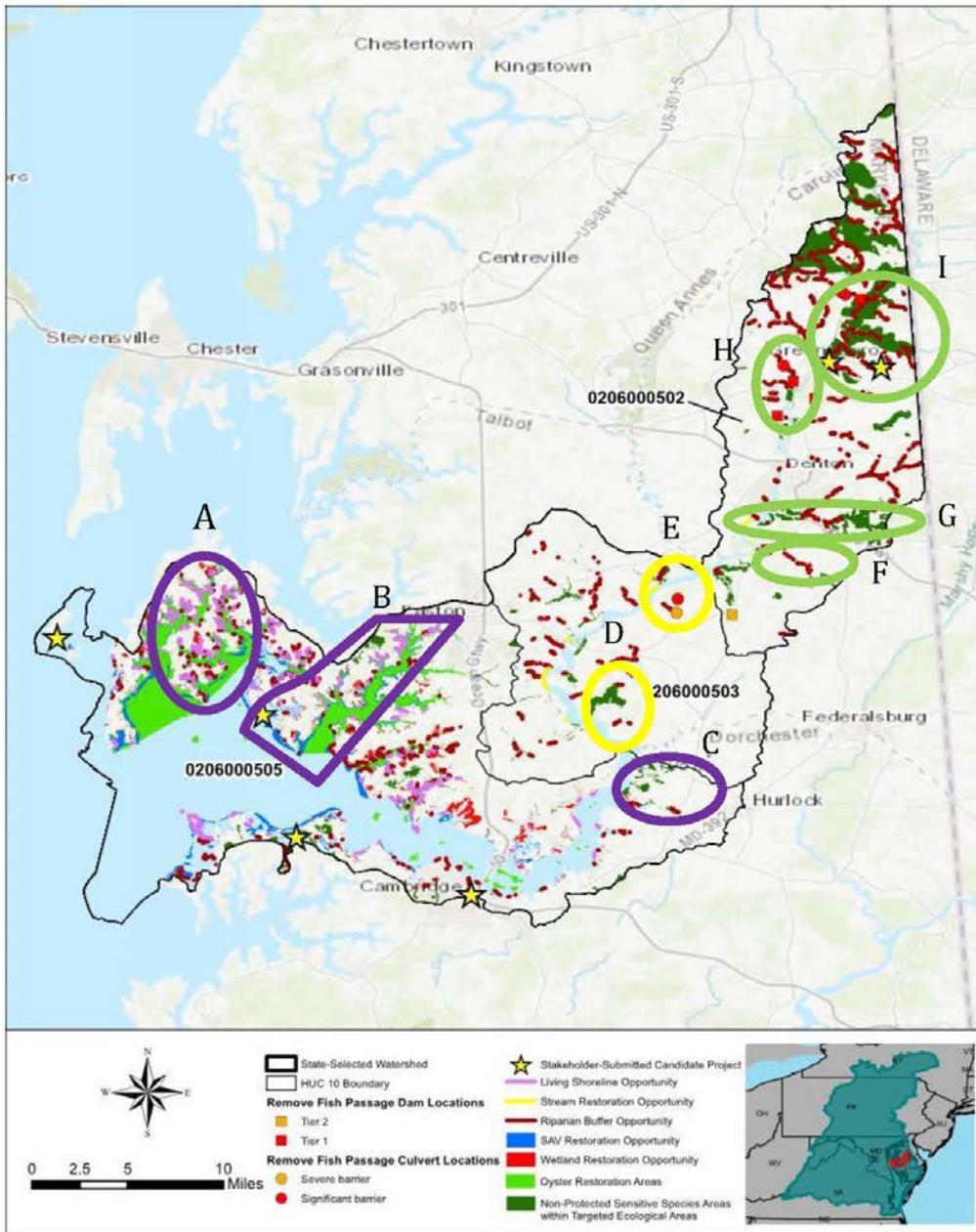
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- Stakeholder Submitted Candidate Project
- Dams Impeding Fish Passage Tier 1
- Dams Impeding Fish Passage Tier 2

LOWER SUSQUEHANNA RIVER (PA): Proposed Project Identification Focus Areas

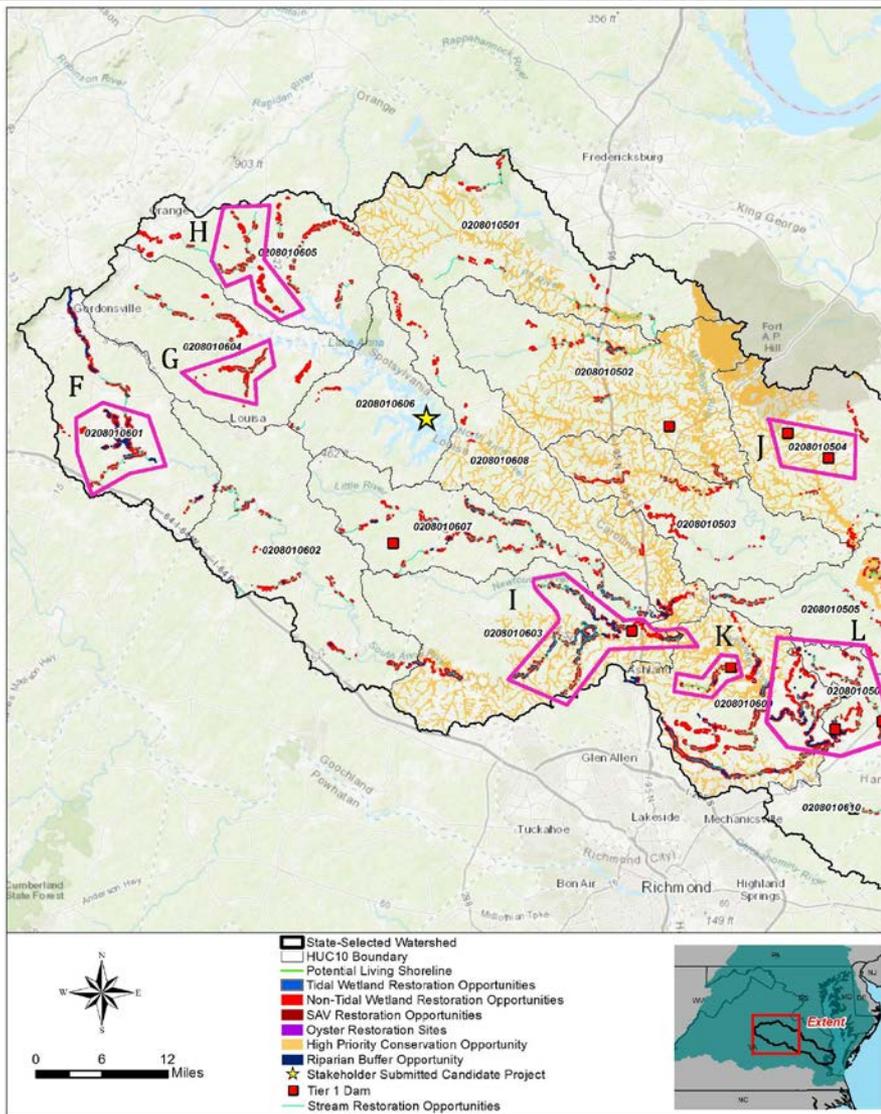
Chesapeake Bay Comprehensive Water Resources and Restoration Plan Watershed Assessment



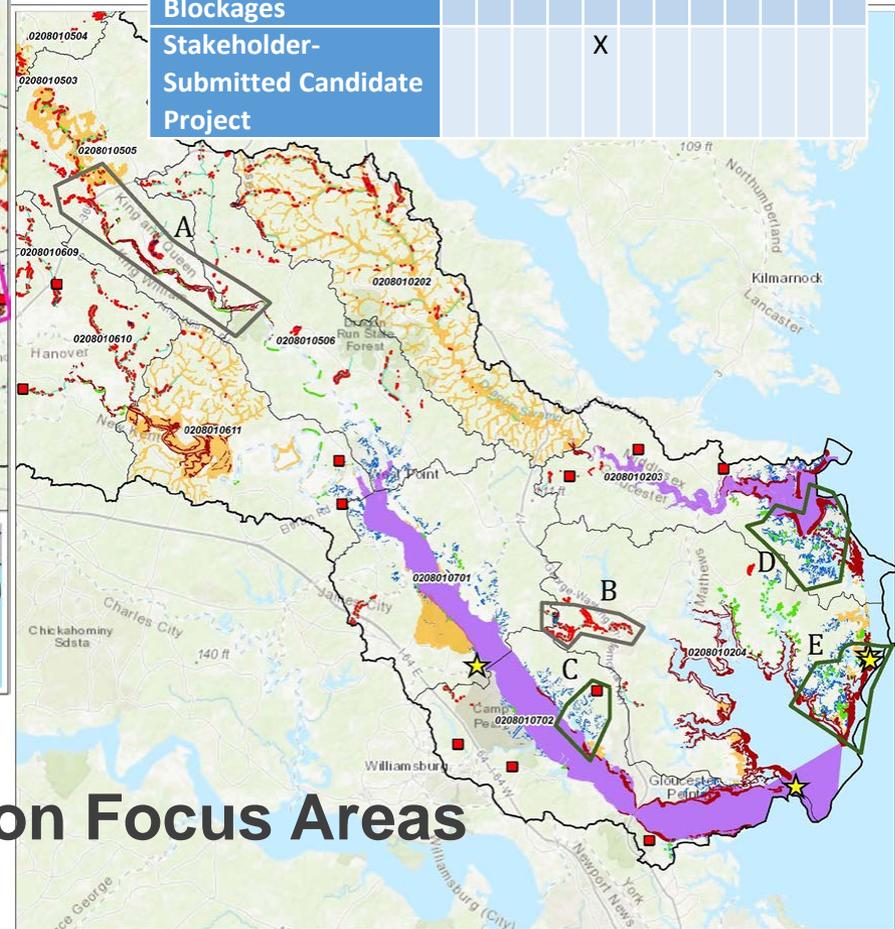
CHOPTANK RIVER (MD): Proposed Project Identification Focus Areas



Choptank River Watershed Project Focus Areas									
Activity	A	B	C	D	E	F	G	H	I
Conservation	X	X	X	X	X	X	X	X	X
Oyster Restoration	X	X							
Stream Restoration				X	X		X		
Riparian Buffer Restoration	X	X	X	X	X	X	X	X	X
SAV Restoration	X	X							
Wetland Restoration	X	X	X				X		X
Living Shoreline	X	X	X						
Removal of Fish Blockages					X	X		X	X
Stakeholder-Submitted Candidate Project		X							X



Middle Peninsula Watershed Project Focus Areas												
Activity	A	B	C	D	E	F	G	H	I	J	K	L
Conservation	X	X		X					X	X	X	X
Oyster Restoration			X	X								
Stream Restoration	X	X				X	X	X	X		X	X
Riparian Buffer Restoration	X	X				X			X		X	X
SAV Restoration	X		X	X	X							
Wetland Restoration	X	X	X	X	X	X	X	X	X		X	X
Living Shoreline	X			X	X							
Removal of Fish Blockages			X						X	X	X	X
Stakeholder-Submitted Candidate Project					X							

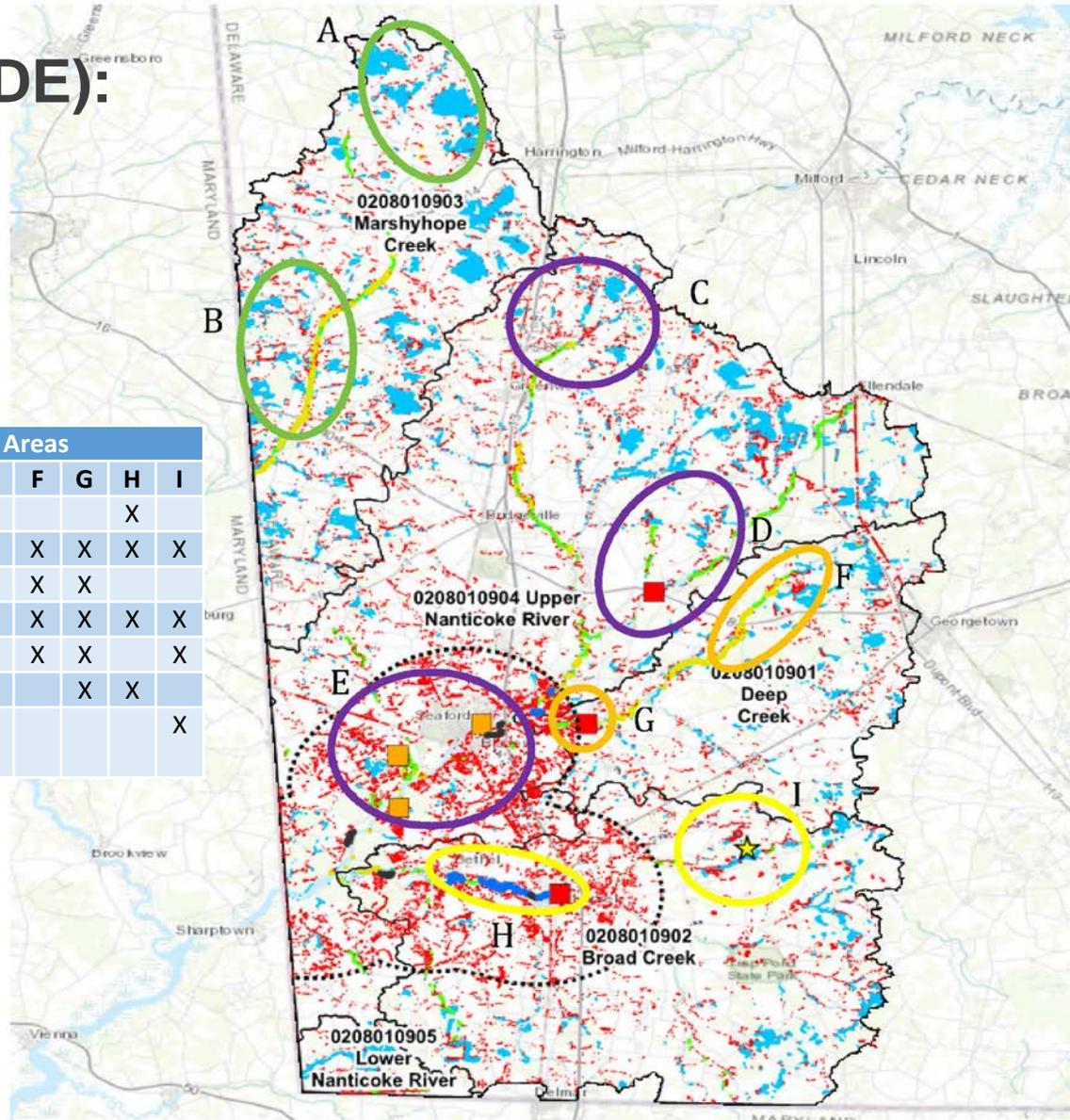


MIDDLE PENINSULA (VA): Proposed Project Identification Focus Areas

Chesapeake Bay Comprehensive Water Resources and Restoration Plan Watershed Assessment

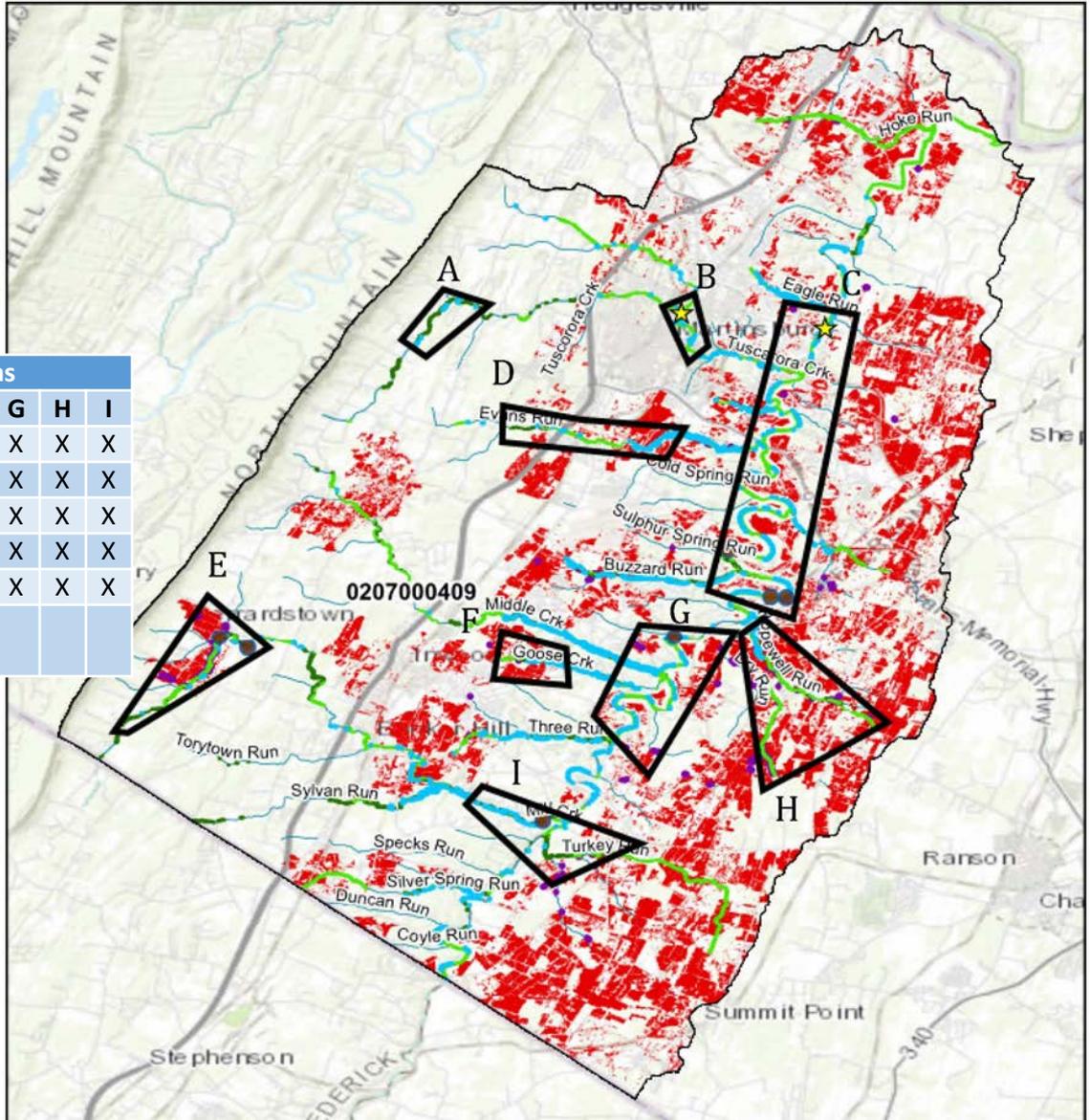
NANTICOKE RIVER (DE): Proposed Project Identification Focus Areas

Nanticoke River Watershed Project Focus Areas									
Activities	A	B	C	D	E	F	G	H	I
Stream Restoration					X			X	
Riparian Buffer Restoration		X	X	X	X	X	X	X	X
Riparian Buffer Conservation		X	X		X	X	X		
Wetland Restoration	X	X	X	X	X	X	X	X	X
Wetland Conservation	X	X	X	X	X	X	X		X
Removal of Fish Blockages				X	X		X	X	
Stakeholder-Submitted Candidate Project									X



OPEQUON CREEK (WV): Proposed Project Identification Focus Areas

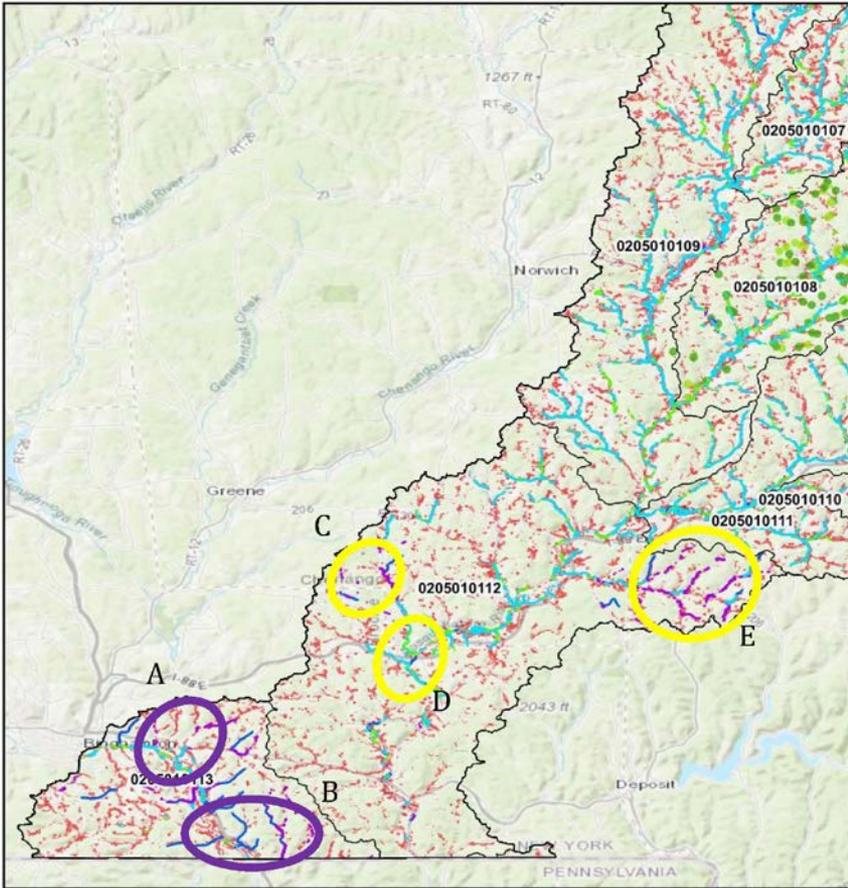
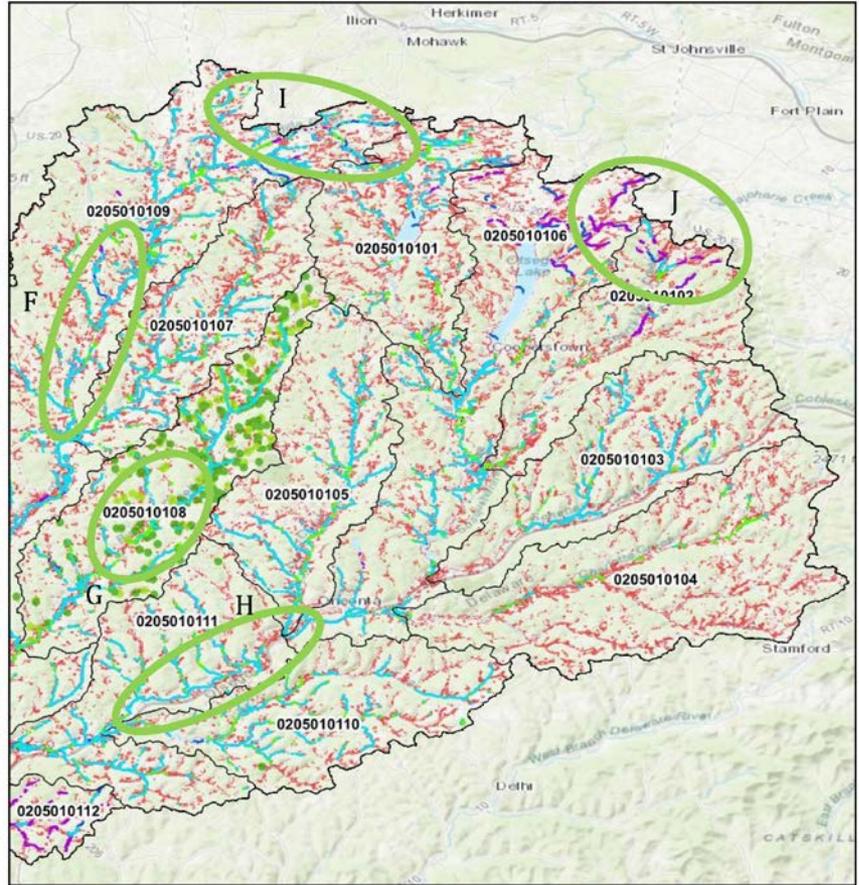
Opequon Creek Watershed Project Focus Areas									
Activity	A	B	C	D	E	F	G	H	I
Stream Restoration	X	X	X	X	X	X	X	X	X
Riparian Buffer Restoration		X	X	X	X	X	X	X	X
Riparian Buffer Conservation	X		X	X	X	X	X	X	X
Wetland Restoration		X	X	X	X	X	X	X	X
Wetland Conservation			X	X	X	X	X	X	X
Stakeholder-Submitted Candidate Project		X	X						



NEW YORK: UPPER SUSQUEHANNA RIVER: Proposed Project Identification Areas

Upper Susquehanna River Watershed Project Focus Areas

Activity	A	B	C	D	E	F	G	H	I	J
Stream Restoration		X	X	X	X	X	X	X	X	X
Riparian Buffer Restoration	X	X	X	X	X	X	X	X	X	X
Wetland Restoration	X	X	X	X	X	X	X	X	X	X
Removal of Fish Blockages							X*			



FINDINGS AND RECOMMENDATIONS



FINDINGS AND RECOMMENDATIONS

- **Prioritize Actions Geographically** to Maximize Benefits and Contribution to Bay Goals
- **Promote Conservation/Enhancement** Adjacent to Existing Healthy, High-Value Habitat and **Restoration** in Highly Degraded Areas
- Utilize NEIEN to **Track Restoration Actions**
- **Develop Relationships** to Support Implementation Partnerships
- ***USACE leadership role in watershed planning and IWRM***
 - Communities need planning and engineering assistance
 - Utilize USACE Programs – Section 510, Technical Assistance, CAP, General Investigations
- **Promote Integrated Water Resource Management** and Plan for Future Threats
 - Protect restoration gains from past investments
 - Minimize adverse impacts from future stressors (population, SLC, etc.)
 - Non-Tidal Wetlands, Streams and Climate Change
 - Tidal Wetlands and Marsh Migration
 - Population Growth and Consumptive Use

BUDGET/SCHEDULE



BUDGET

- Total Federal Funding - \$2.1M
- Total Nonfederal funding - \$704K (In-Kind Services)
- Cumulative expenditures (FY16-FY17) as of Sept 2017 - \$1.2M
- Proposed expenditures for FY18 - \$800K
- Funding
 - FY17 completion funds - \$1.46M

SCHEDULE

- Draft Report Submitted – May 31, 2018
- Final Report Submittal to NAD/HQ – Jul-Sep 2018, pending level of public input
- HQUSACE submittal to ASA(CW)

NEXT STEPS



- Release of Phase II of draft report for public input – 14 June 2018
- Brief Sustainable Fisheries and Habitat GITs – 20 June 2018
- Agency coordination and Stakeholder Webinar – 26 June 2018
- Conclusion of public input period – 16 July 2018
 - Specifically requesting input on potential projects