

# Cross-Outcome Mapping Project

Scott Phillips and John Wolf

On behalf of the Project Team and GIT Chairs

MB meeting

September 15, 2016

# Purpose for today

- Inform MB of the mapping project
- Discuss initial GIT priorities for mapping

## Discussion with MB:

- Suggest any additional jurisdiction mapping items
- Identify priority areas already working
- How you or staff would like to be involved

# Need for Project

## Bay Agreement

- 10 Goals
- 31 Outcomes
- Strategies
- ‘Strategic manner’
- ‘Cost effective’
- ‘Place-based approaches
- Mapping project



# More strategic and effective

## More effectively share resources to make progress on inter-related outcomes

- Actions between outcomes
- Places where efforts can be concentrated
- Aligning partner activities
- GITs , MB, PSC, Implementers , STAR

### Benefits

- Strategic
- Increase interaction
- Enhance effectiveness
- Communicate value



# Approach



- Maximum benefit to living resources
- Restoration and conservation
- Consider future threats
- Current partner efforts
- Joint planning in places with greatest benefit

# CONCEPTUAL DIAGRAM OF CHESAPEAKE BAY ECOSYSTEM

## POPULATIONS

### FISHERIES

- Crabs
- Oysters
- Finfish
- Freshwater (Brook Trout)

### WILDLIFE

- Waterbirds (Black Ducks)

### PEOPLE

- Stewardship
- Access
- Literacy
- Diversity

## CONDITIONS

### WATER QUALITY

- Oxygen/Clarity
- Nutrients
- Sediment
- Contaminants

### HABITATS

- Wetlands
- SAV
- Streams
- Forests

### LANDS

- Healthy Watersheds
- Protection
- Land Use

## INTERVENTIONS

### MANAGEMENT STRATEGIES/PRACTICES

## DRIVERS OF ECOSYSTEM CHANGE

### CLIMATE CHANGE AND VARIABILITY

### POPULATION GROWTH: CONSUMPTION AND LAND CHANGE

# Initial GIT priorities

- Living Resources:
  - Fish,
  - Wildlife
  - People
- Habitats
- Water Quality
- Healthy Watersheds and Land Protection
- Threats
- (Table 1 of work plan)



# Two Examples

## #1

- Conservation
- Nontidal
- GITs 2,4,5

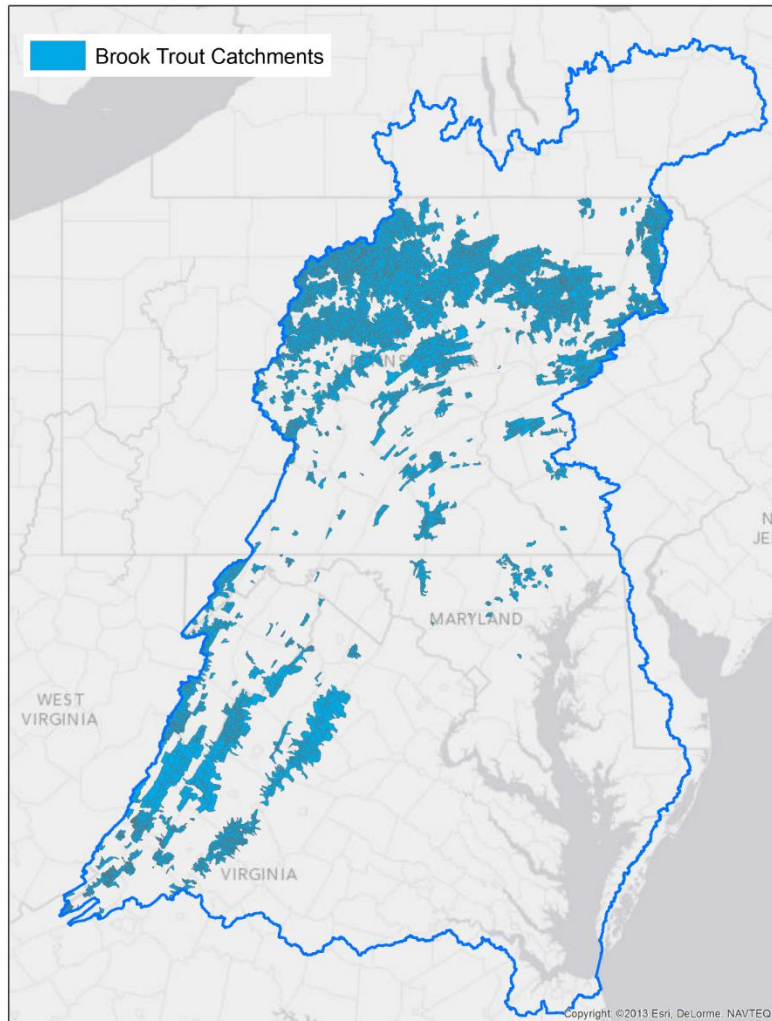
## #2

- Restoration
- Tidal
- GITs 1,3, STAR

- *Examples – illustrative purposes only*
  - *Living Resource endpoints*
    - *Science + Art*



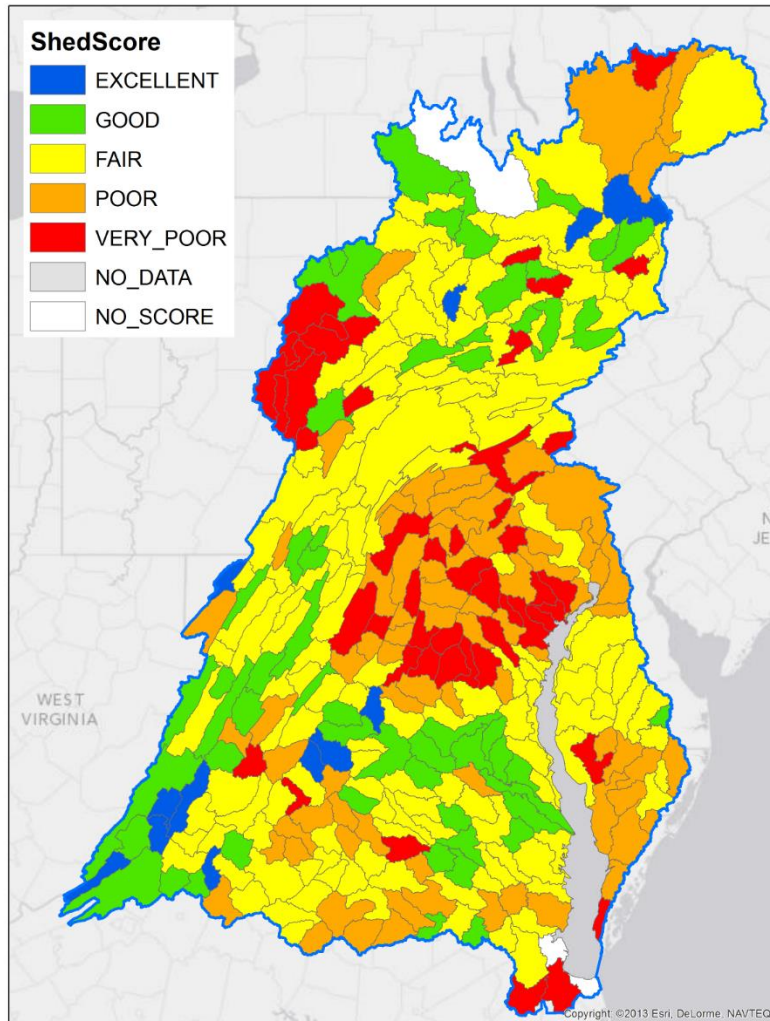
# Example 1: Brook Trout



## Outcome-based Conservation Example

Catchments Occupied  
by Brook Trout

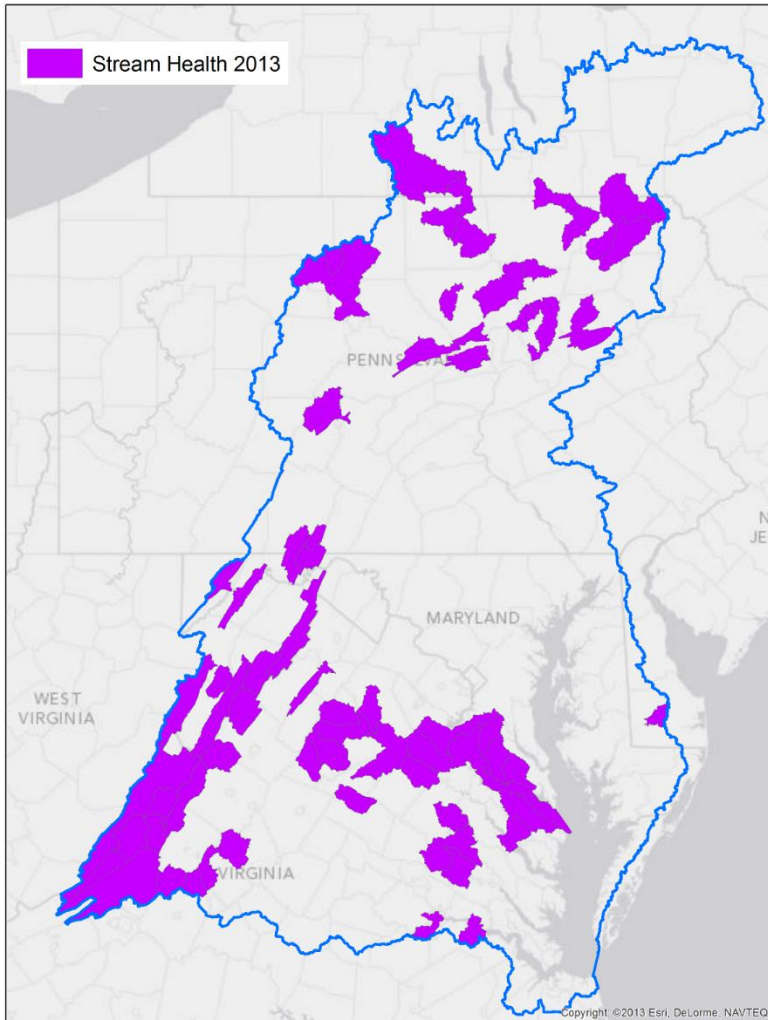
# Example 1: Brook Trout



**Outcome-based  
Conservation Example**

Average Stream Health

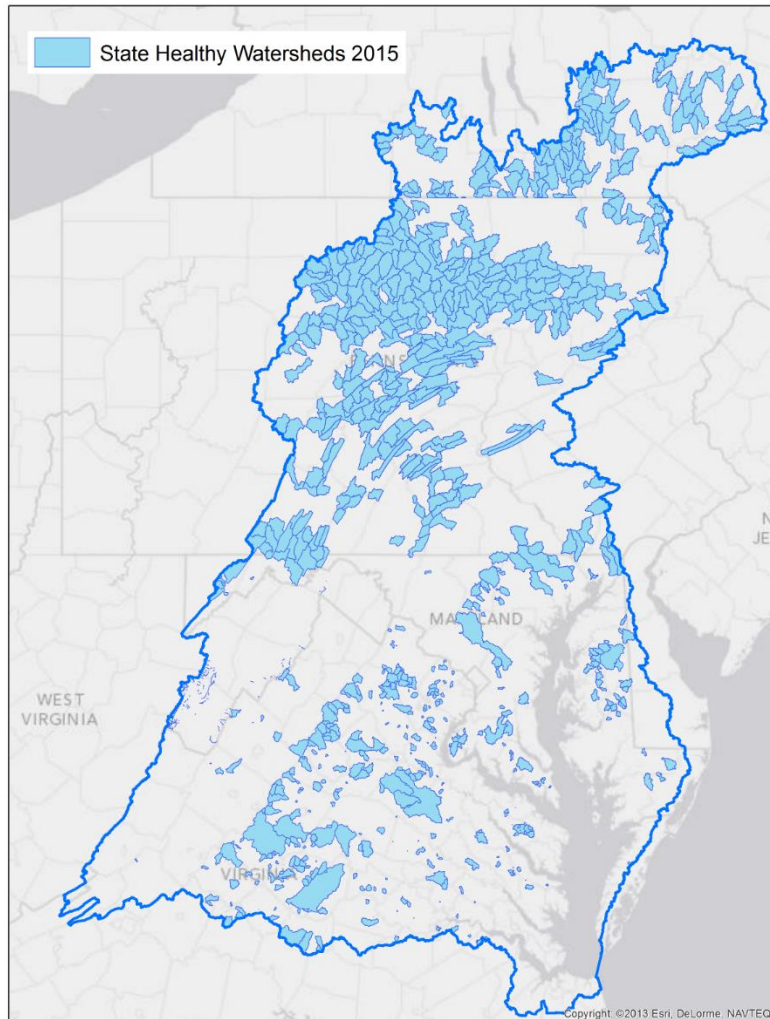
# Example 1: Brook Trout



## Outcome-based Conservation Example

Average Stream Health  
(Assumption –  
Excellent or Good Only)

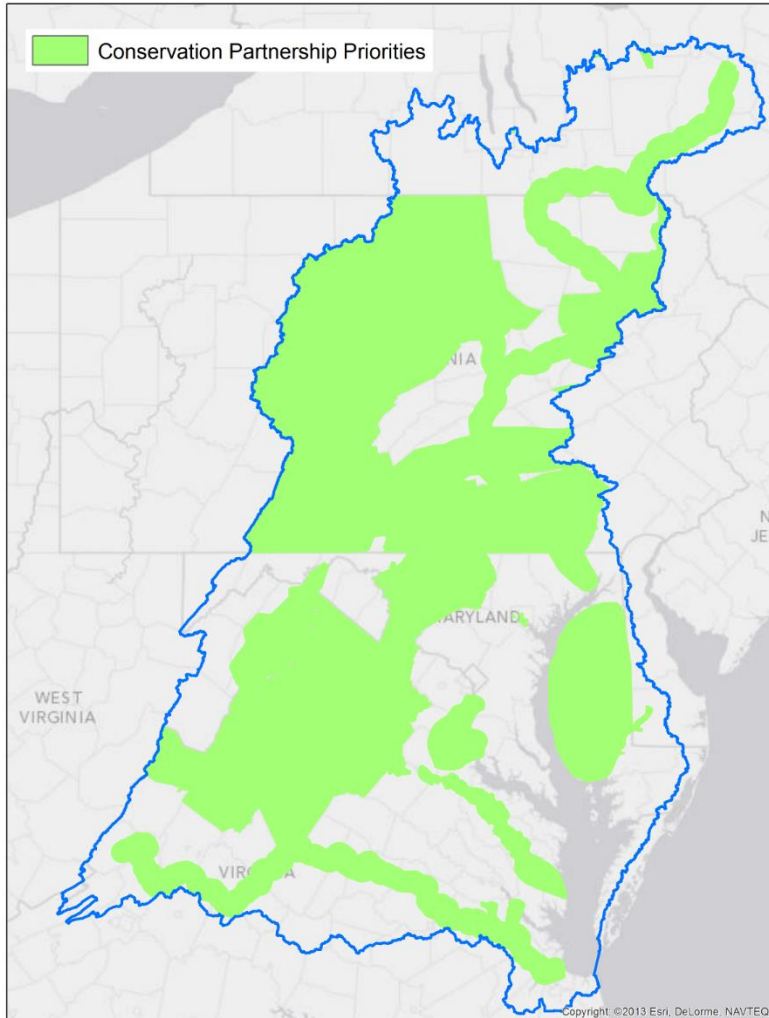
# Example 1: Brook Trout



**Outcome-based  
Conservation Example**

**State Designated  
Healthy Watersheds**

# Example 1: Brook Trout



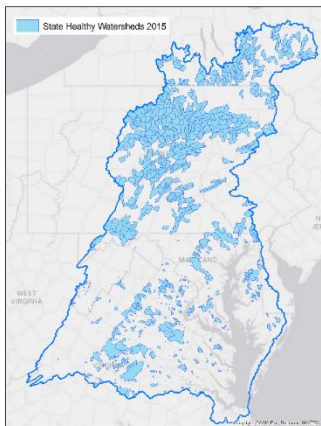
## Outcome-based Conservation Example

Priority Areas for  
Land Conservation  
(placeholder example only)



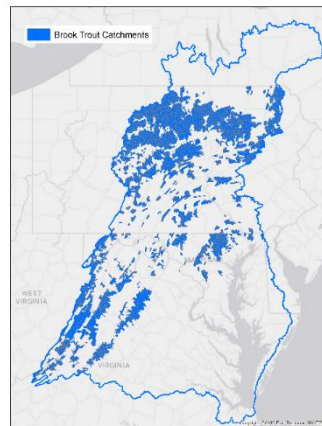
# Example 1: Brook Trout

Healthy  
Watersheds



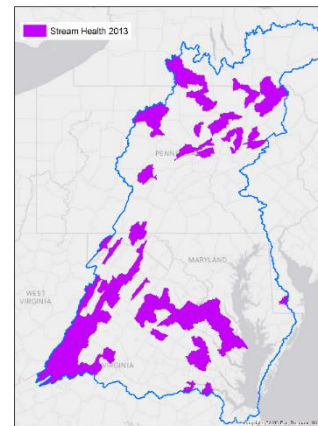
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Brook  
Trout



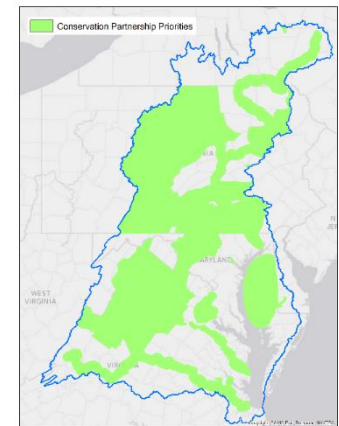
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Stream  
Health



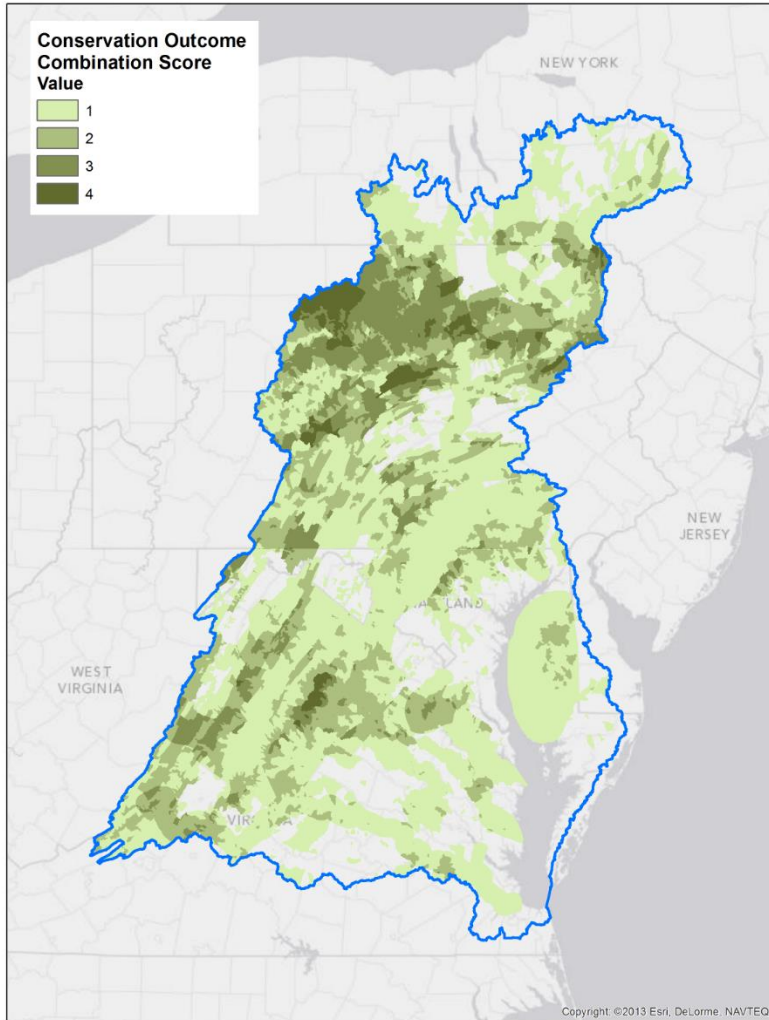
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Conservation  
Partnership



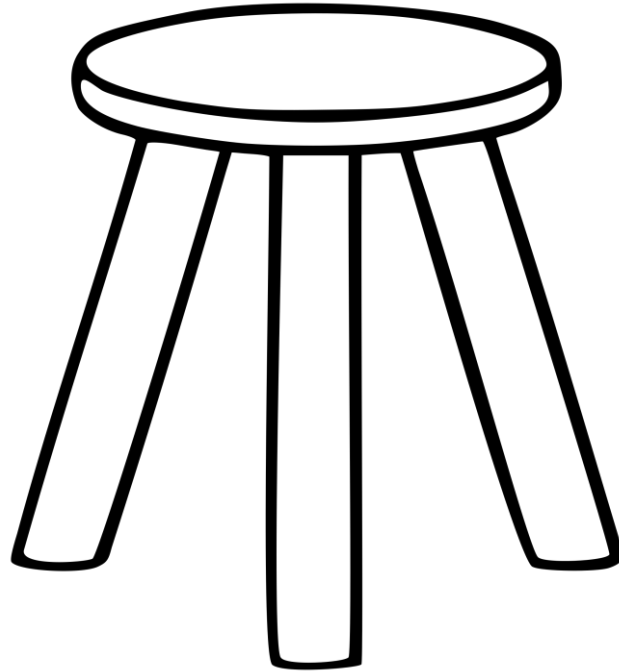
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# Example 1: Brook Trout



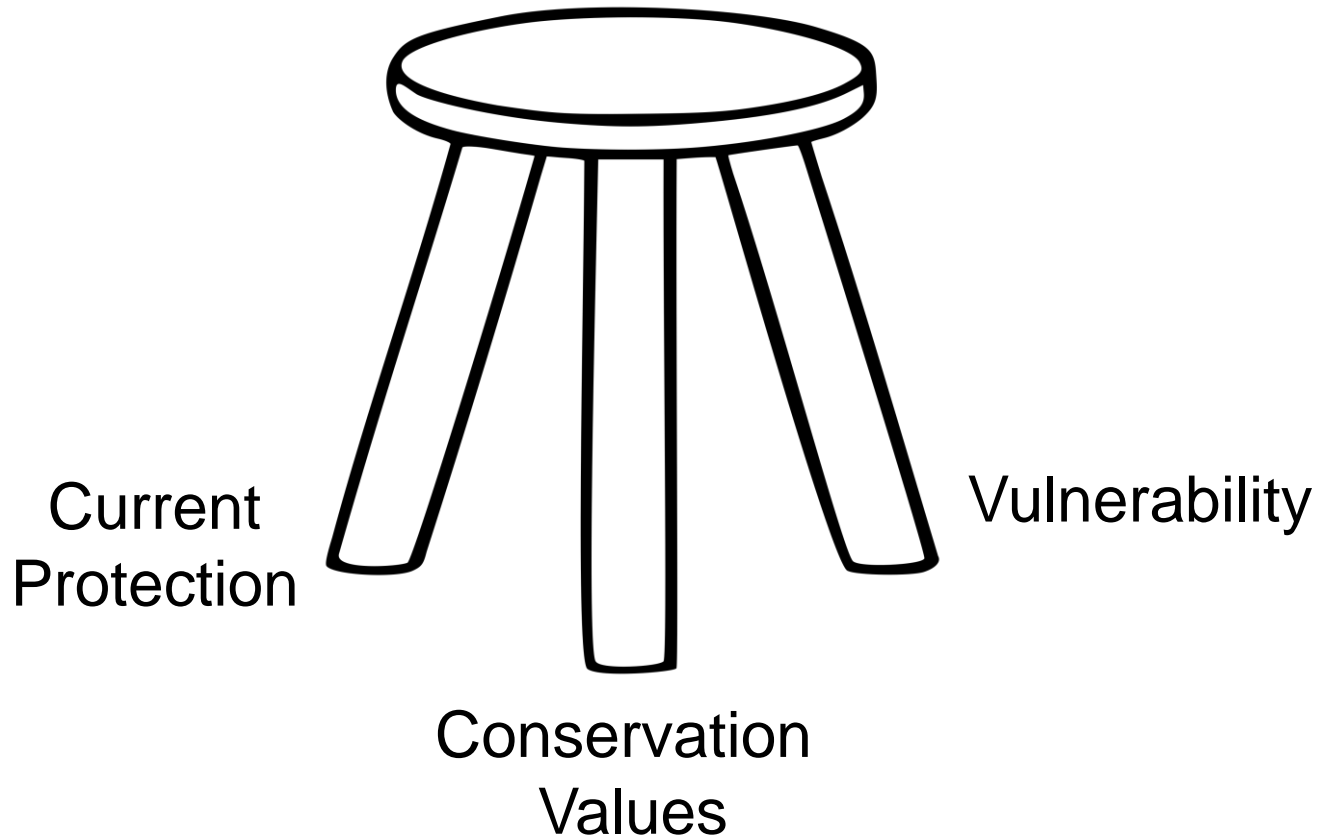
Number of Overlapping  
Priority Areas

# Example 1: Brook Trout



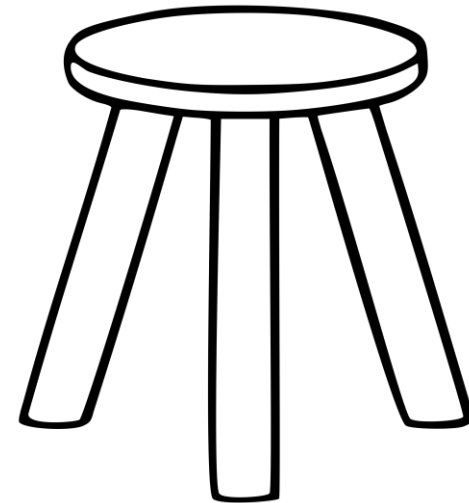
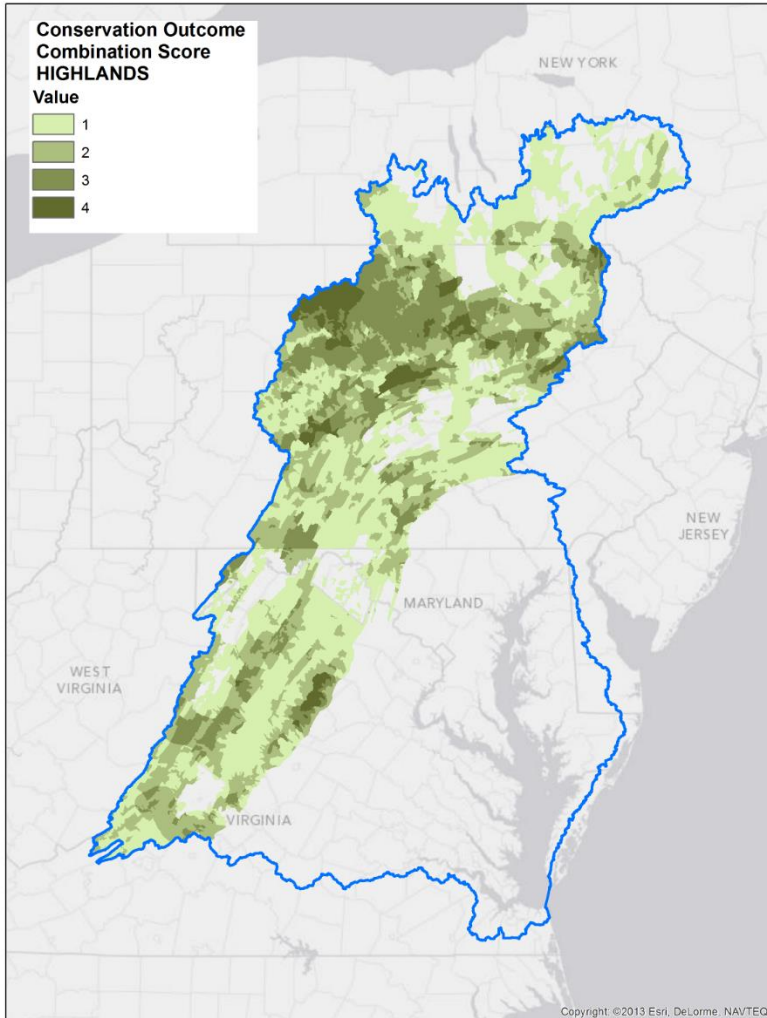


# Example 1: Brook Trout



# Example 1: Brook Trout

Number of Overlapping  
Priority Areas

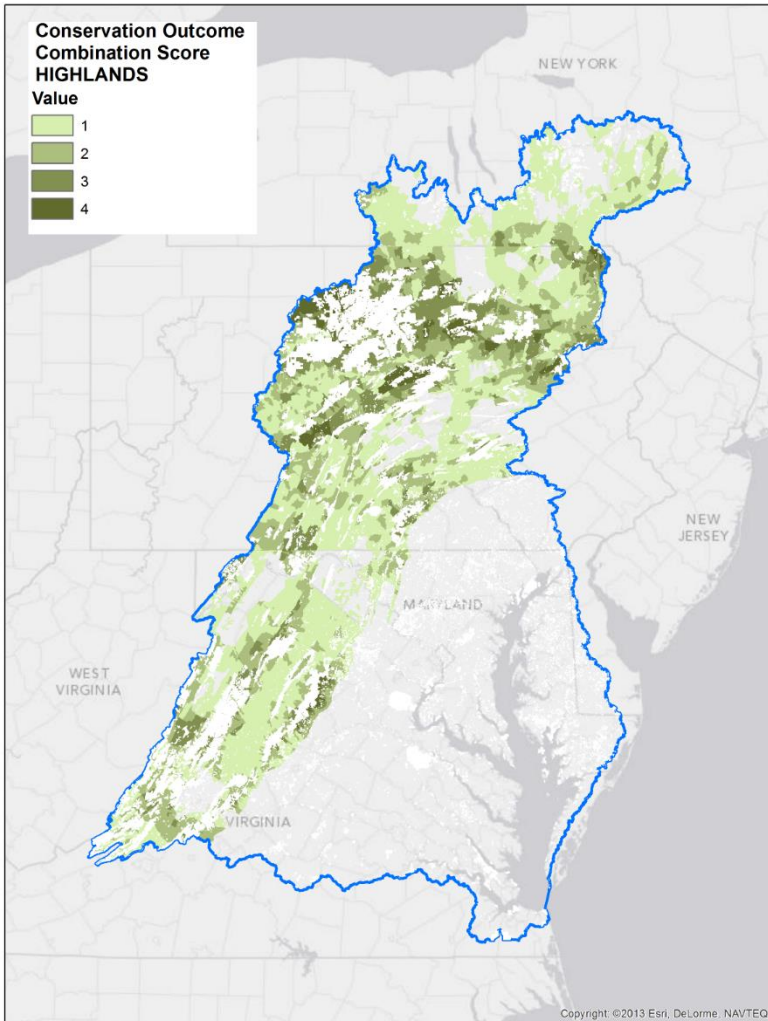


Conservation  
Values

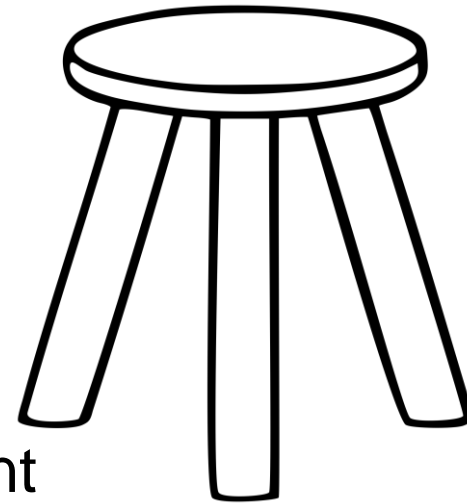
# Example 1: Brook Trout

Number of Overlapping  
Priority Areas

**Accounting for  
Existing Protection**



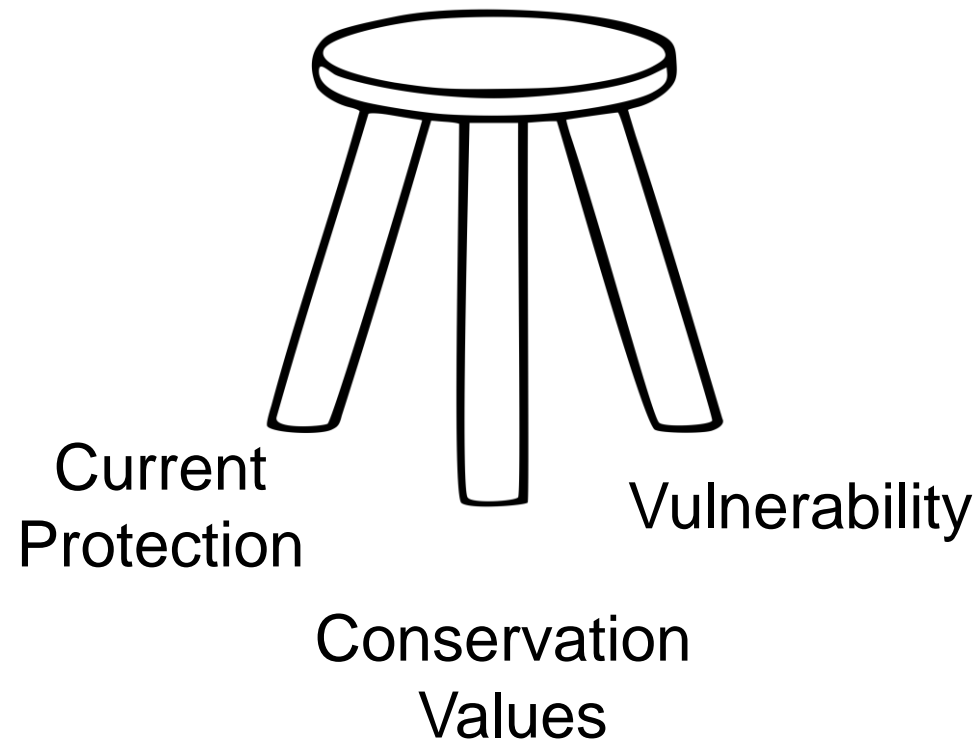
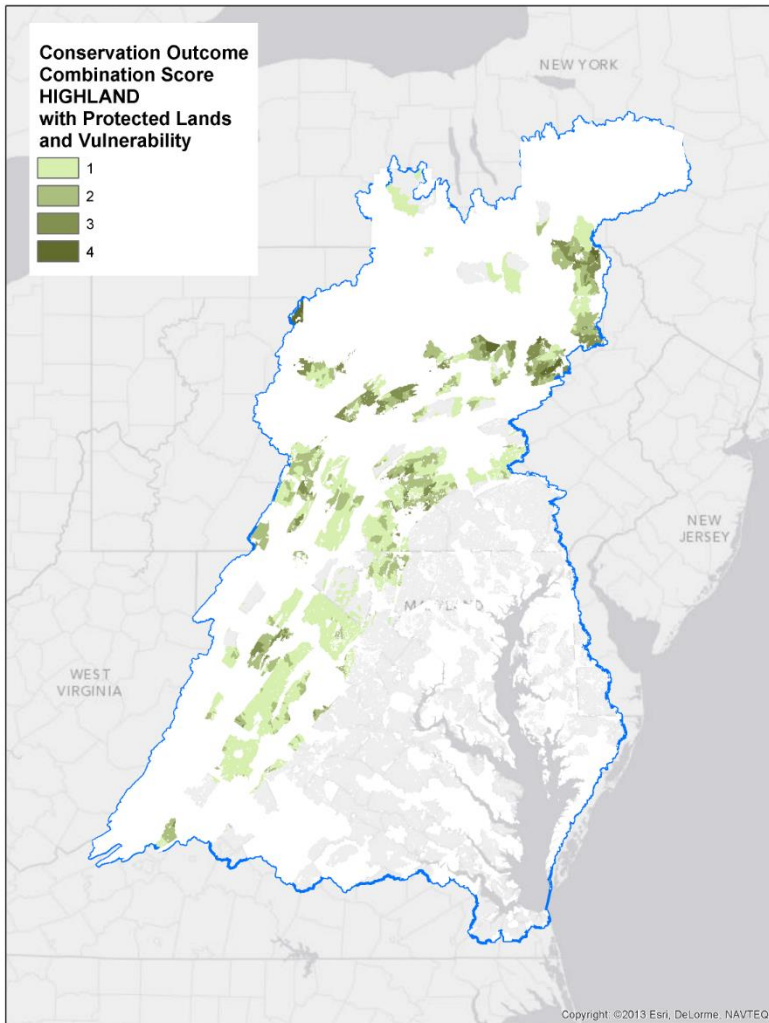
Current  
Protection



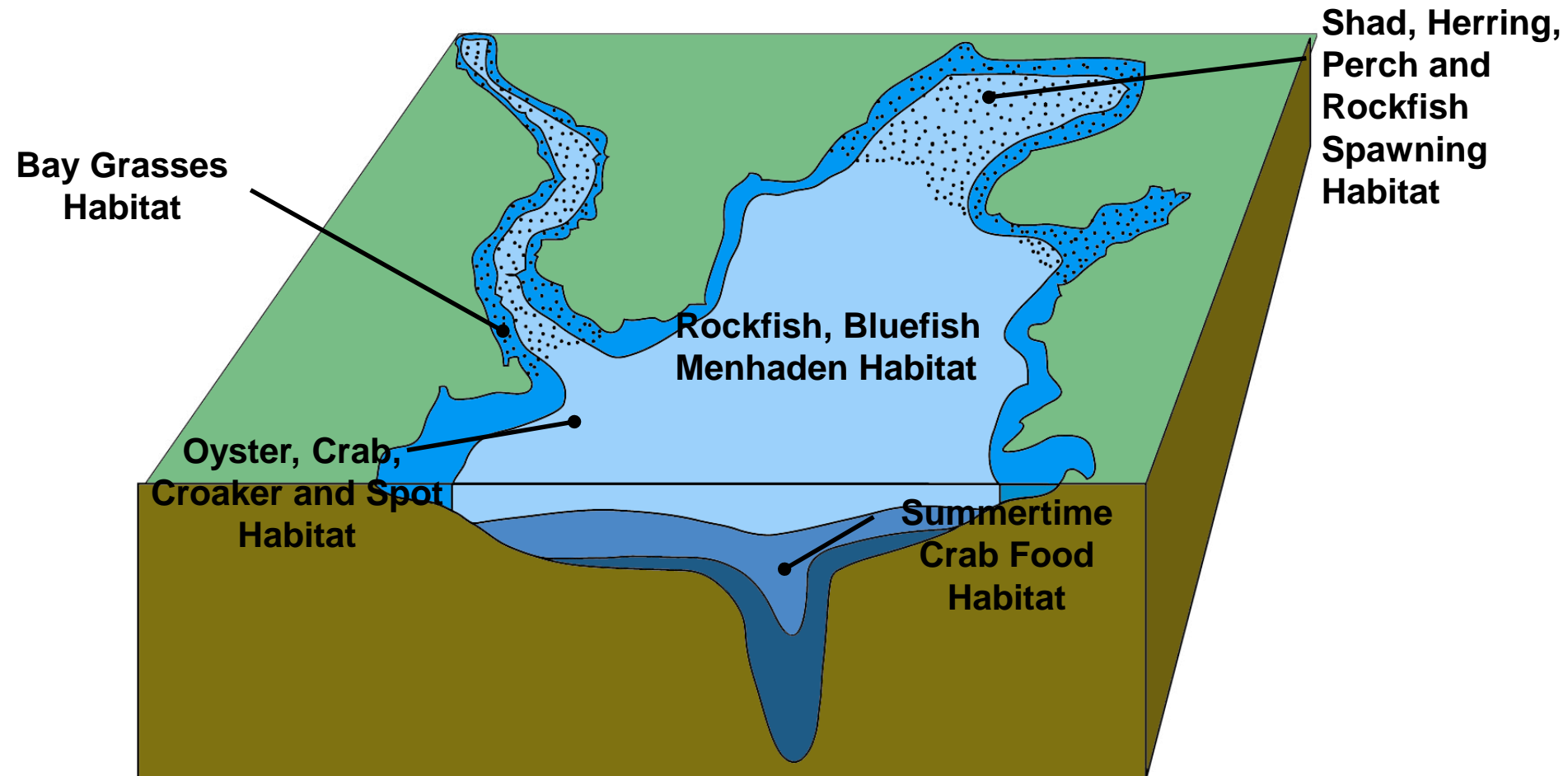
Conservation  
Values

# Example 1: Brook Trout

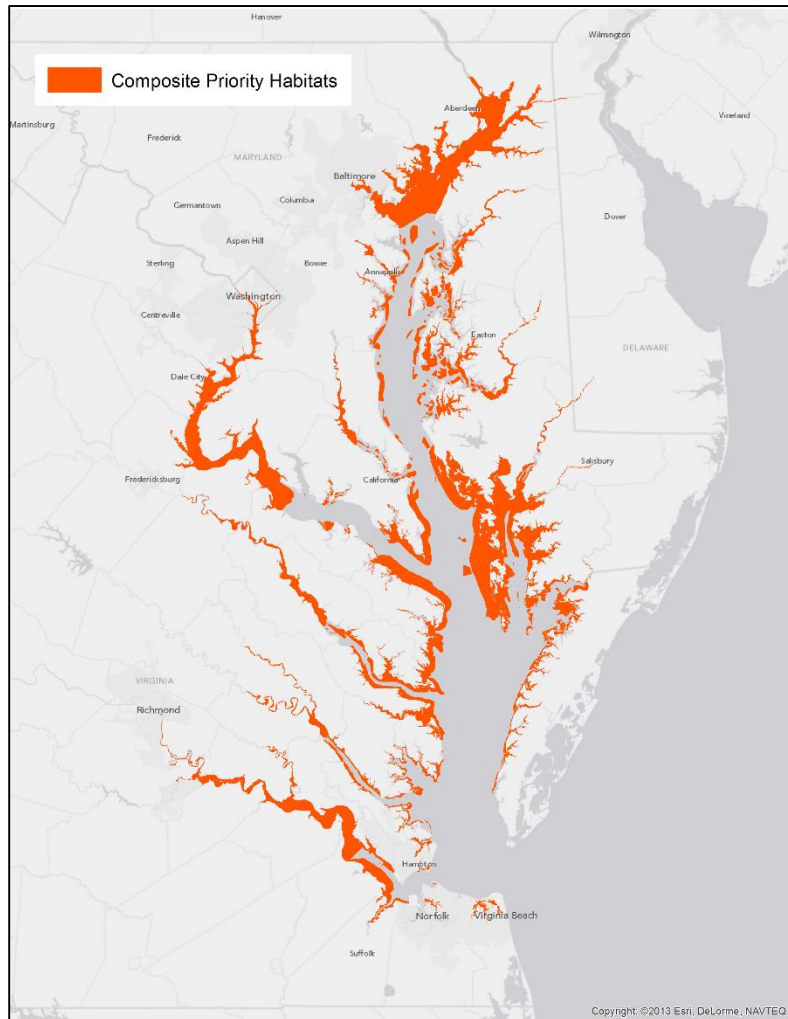
Number of Overlapping  
Priority Areas  
**Accounting for  
Existing Protection  
and Vulnerability**



# Example 2 : Tidal Living Resources



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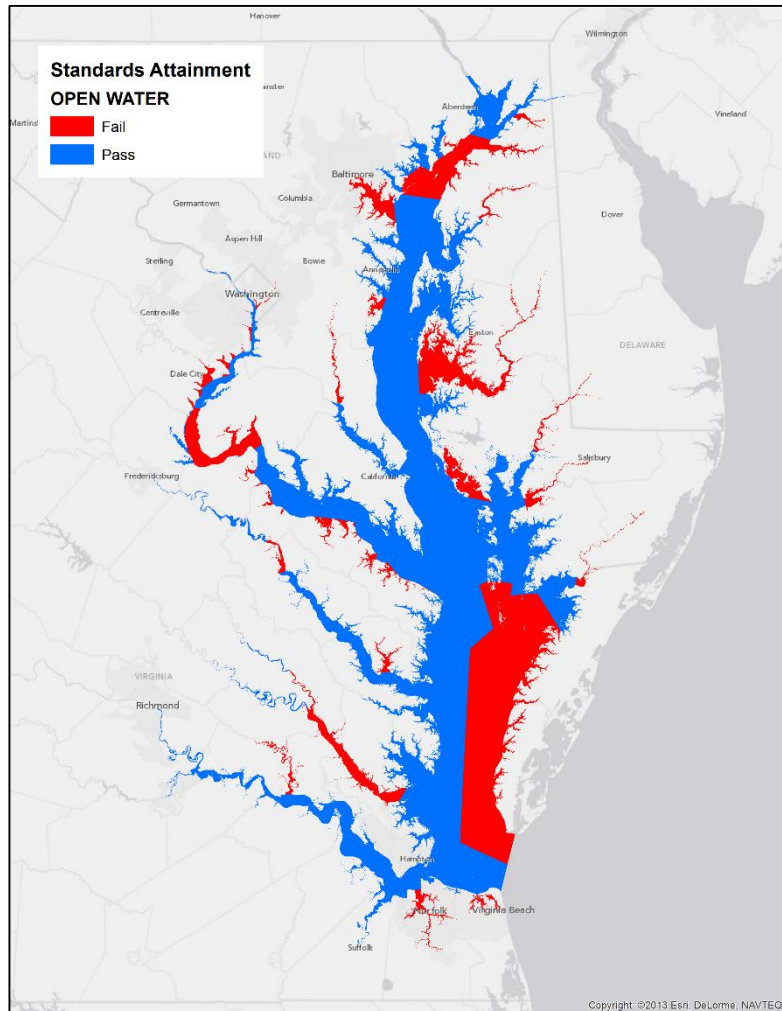
## Outcome-based Restoration Example

## Composite Priority Habitats

Priority Oyster Restoration Tributaries  
Priority Water Column Species Habitats  
Priority Bottom Species Habitats



# Example 2 : Tidal Living Resources

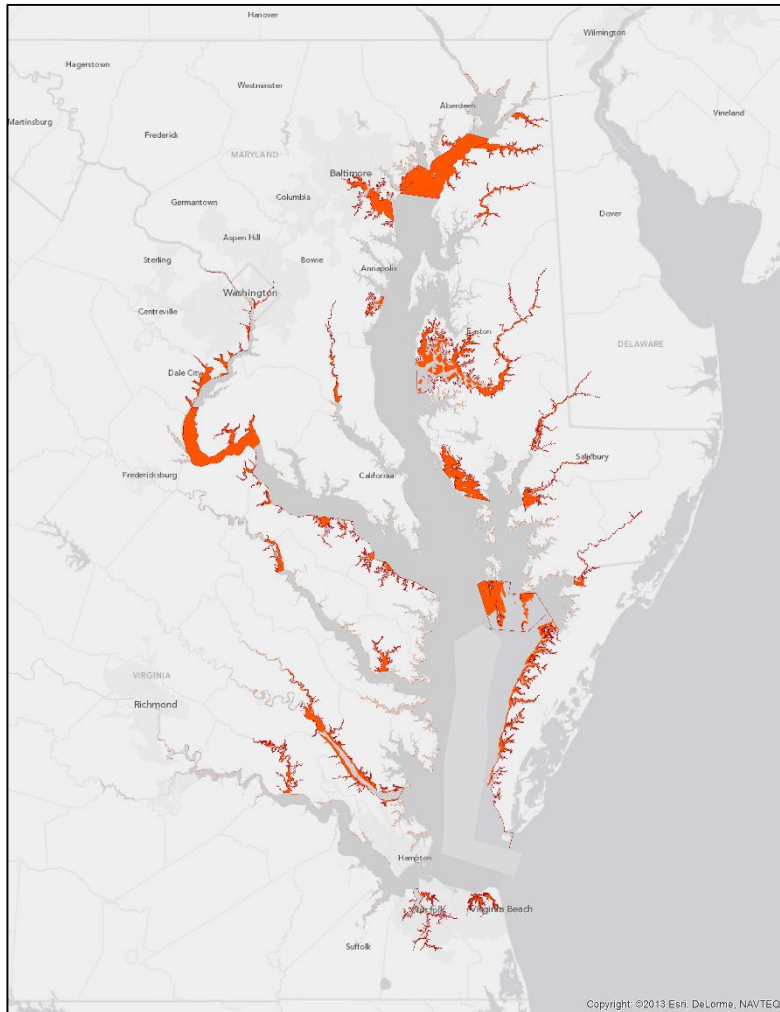


**Outcome-based  
Restoration Example**

**Nonattainment of  
Water Quality  
Standards**

**Open Water  
Designated Use**

# Example 2 : Tidal Living Resources



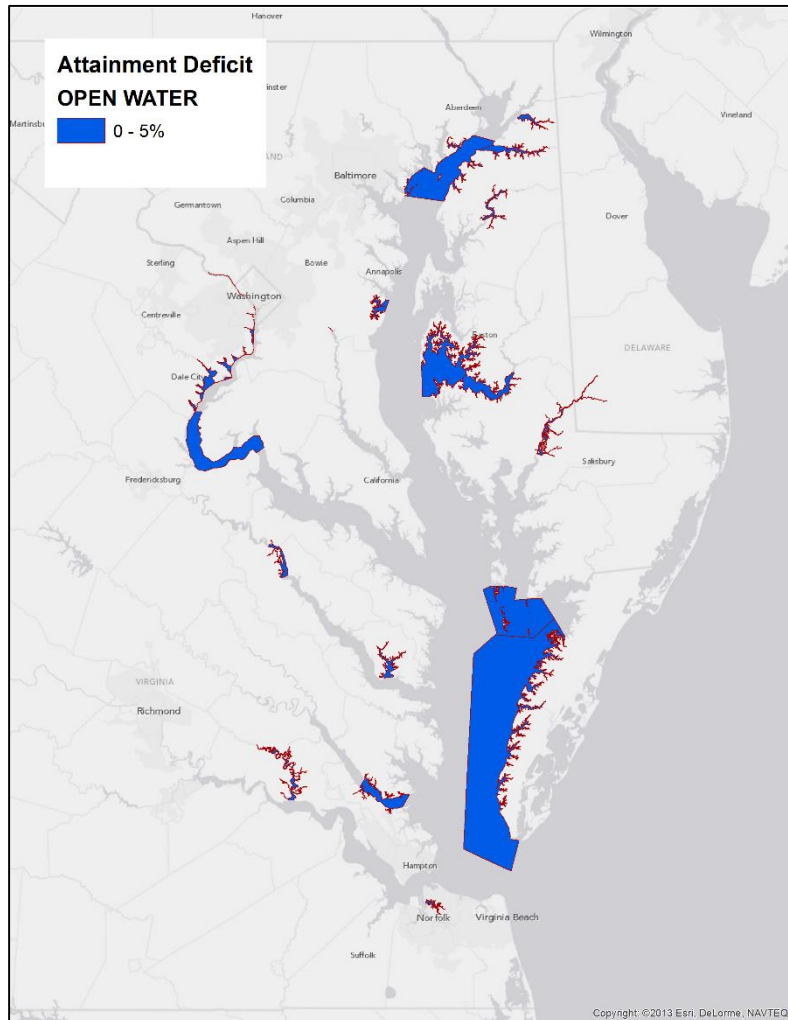
**Outcome-based  
Restoration Example**

Important Habitat  
areas not meeting  
Water Quality  
Standards

Open Water  
Designated Use



# Example 2 : Tidal Living Resources

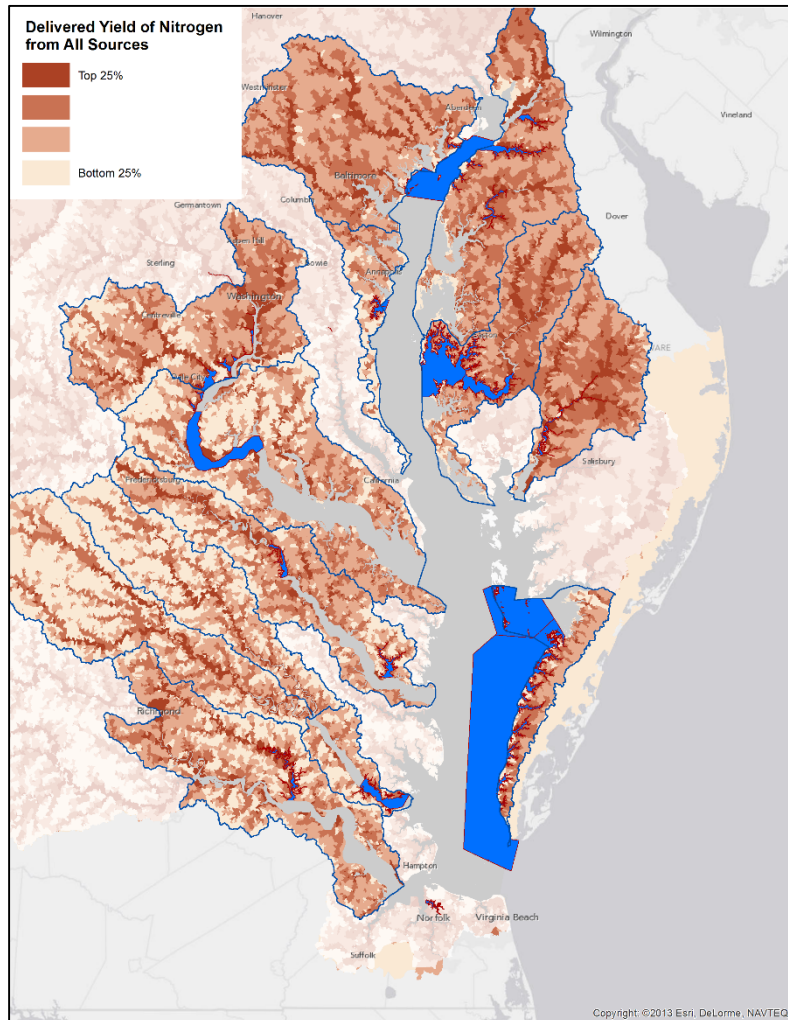


**Outcome-based  
Restoration Example**

**Important Habitat  
Segments Close  
to Attainment**

**Open Water  
Designated Use**

# Example 2 : Tidal Living Resources

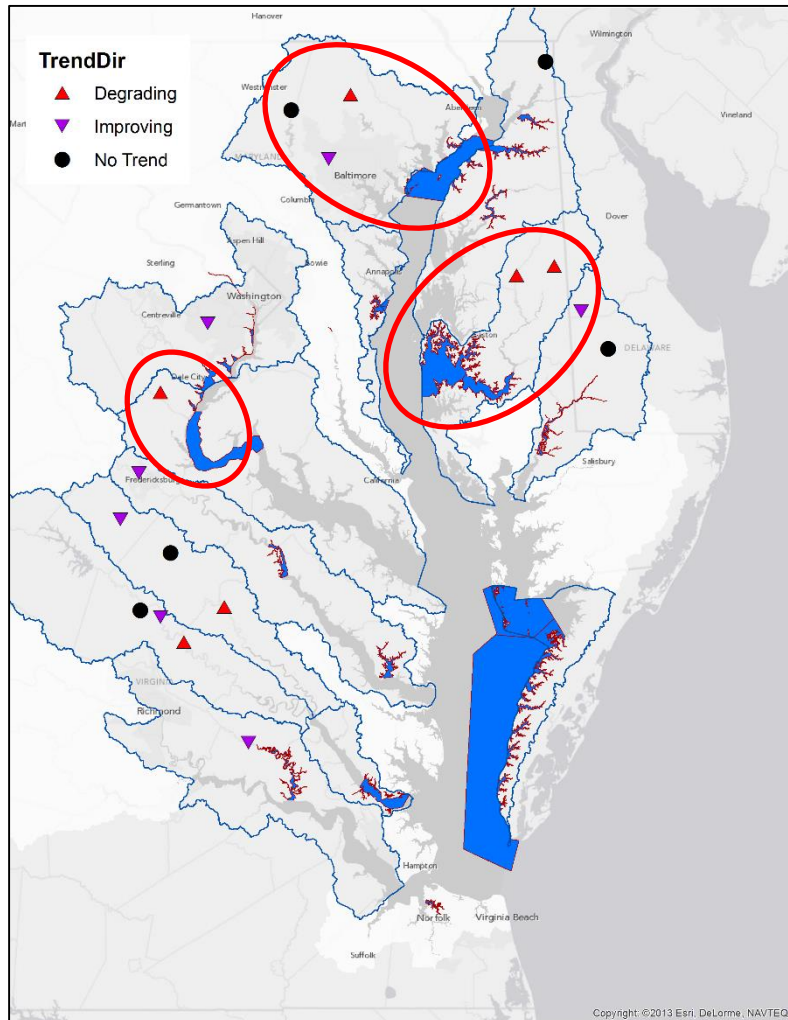


## Outcome-based Restoration Example

Considering Upstream  
Stressors

Delivered Yield  
of Nitrogen  
(USGS SPARROW)

# Example 2 : Tidal Living Resources

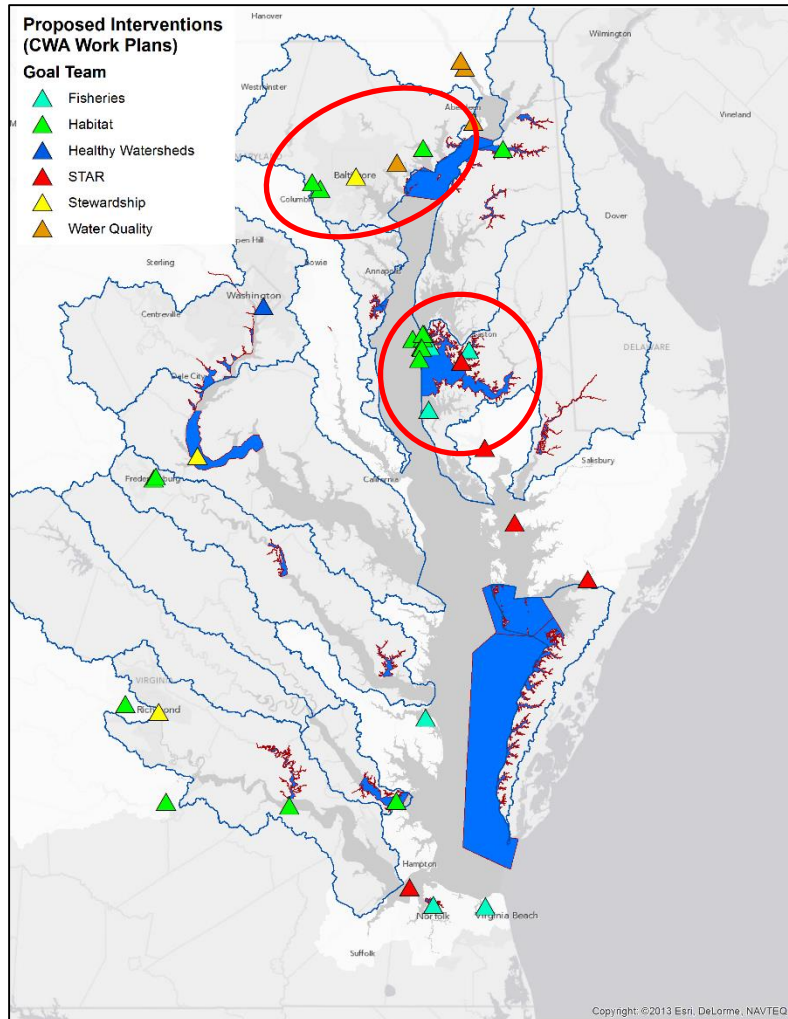


**Outcome-based  
Restoration Example**

**Considering Trends  
Upstream**

**TN Trends  
Upstream of  
Priority Habitat  
Segments**

# Example 2 : Tidal Living Resources

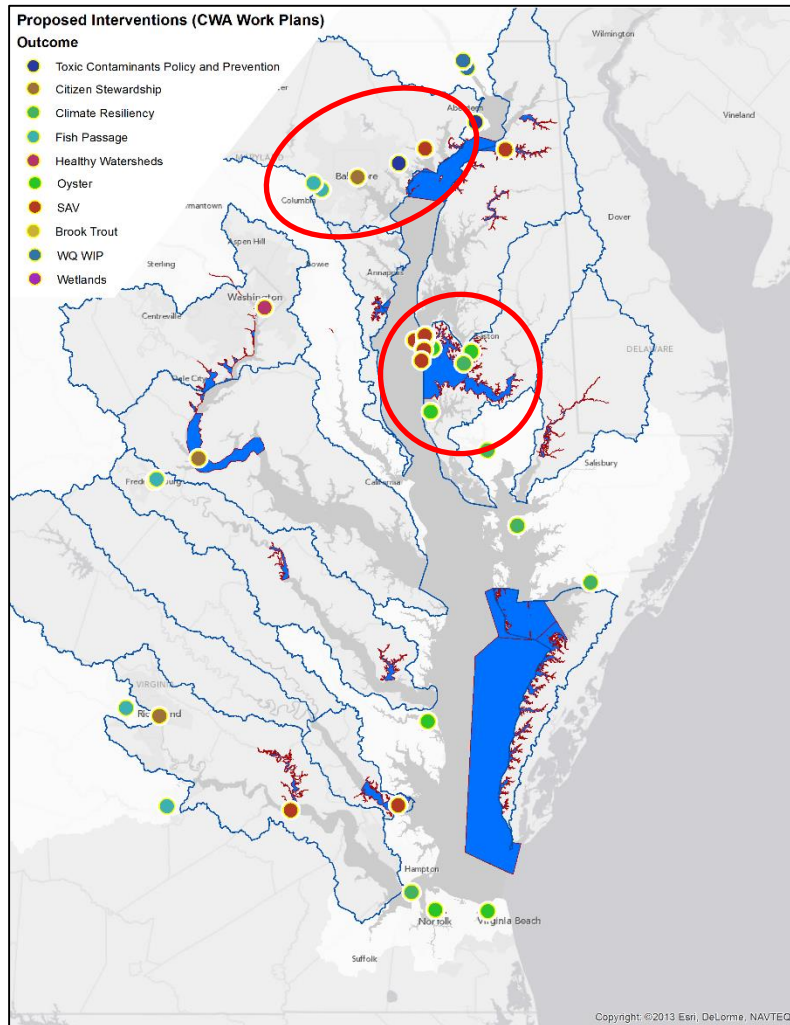


**Outcome-based  
Restoration Example**

**Accounting for  
Planned Intervention  
Activity**

**Work Plan  
Projects by GIT**

# Example 2 : Tidal Living Resources



**Outcome-based  
Restoration Example**

**Accounting for  
Planned Intervention  
Activity**

**Work Plan  
Projects by Outcome**



# Affirming Initial Priorities



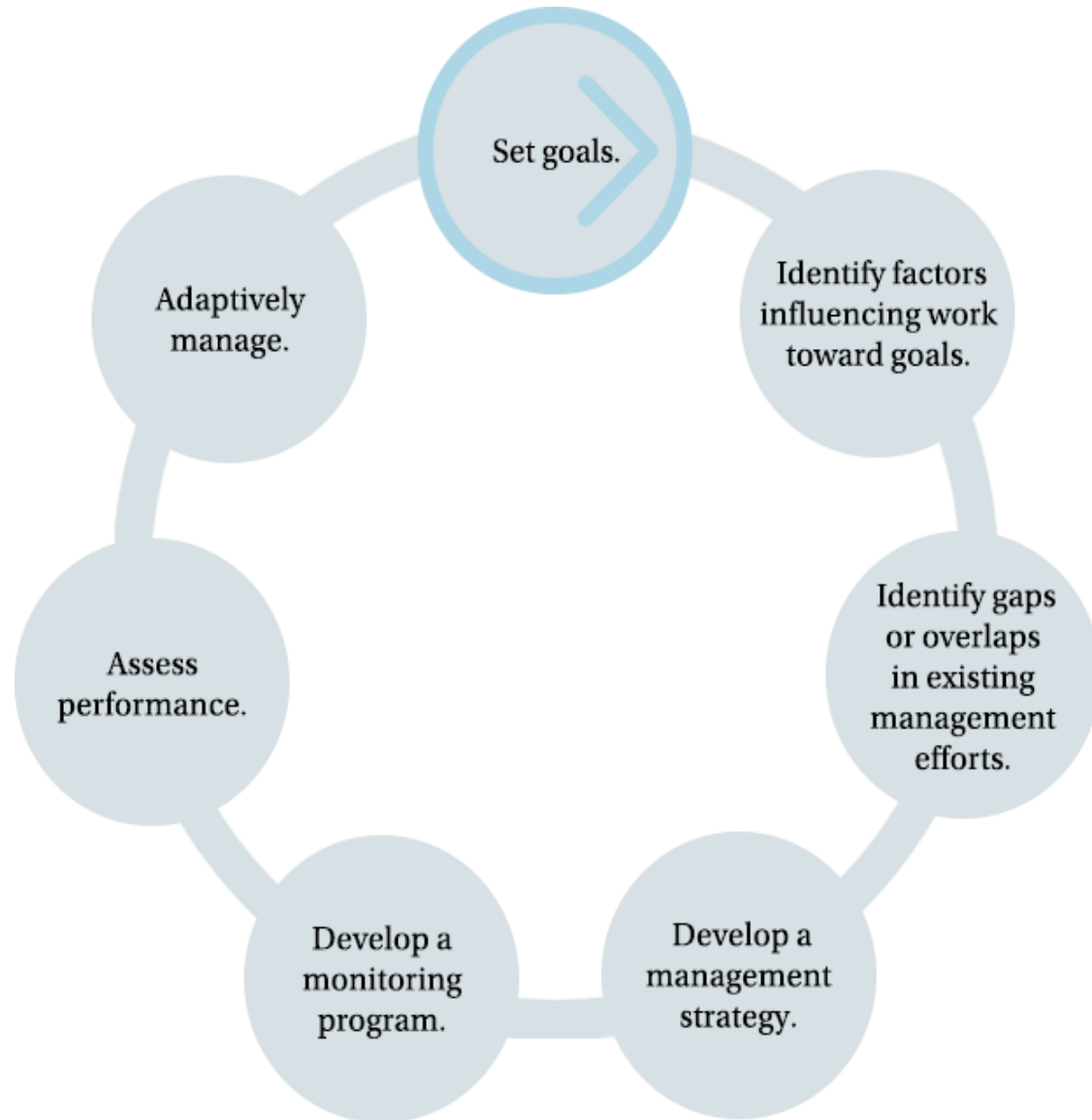
- GITs
  - Cross section of CBP
  - Implementers
- MB and PSC
  - Strategic direction
  - Additional suggestions
- Additional applications
  - USACE
  - NFWF
- Evolve over time

# Being more strategic

- Leadership
- Work plans
- WIPs

## MB Discussion

- Jurisdiction mapping items
- Priority areas already working
- Involvement



# Questions:

Scott Phillips, John Wolf , Kristin Saunders, Greg Barranco

