

# **STAR Meeting**

3/26/2015

Indicator Assessment (IA) Team Meetings with  
Outcomes

Tetra Tech Funding

# Oyster

Bruce Vogt & Emilie Franke

Long term indicator: # tributaries restored

- *At least a 6 year process*

Short term indicator: What oyster metrics would be best?

Gaps:

Monitoring of reef metrics

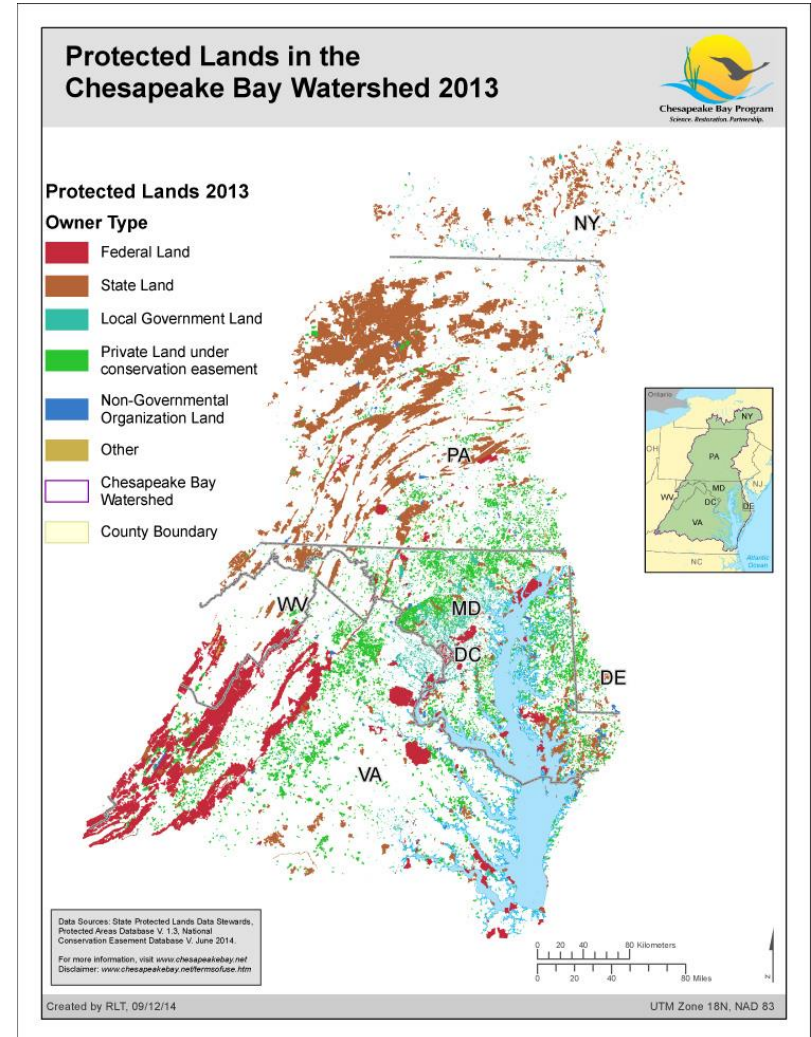


# Protected Lands

Renee Thompson

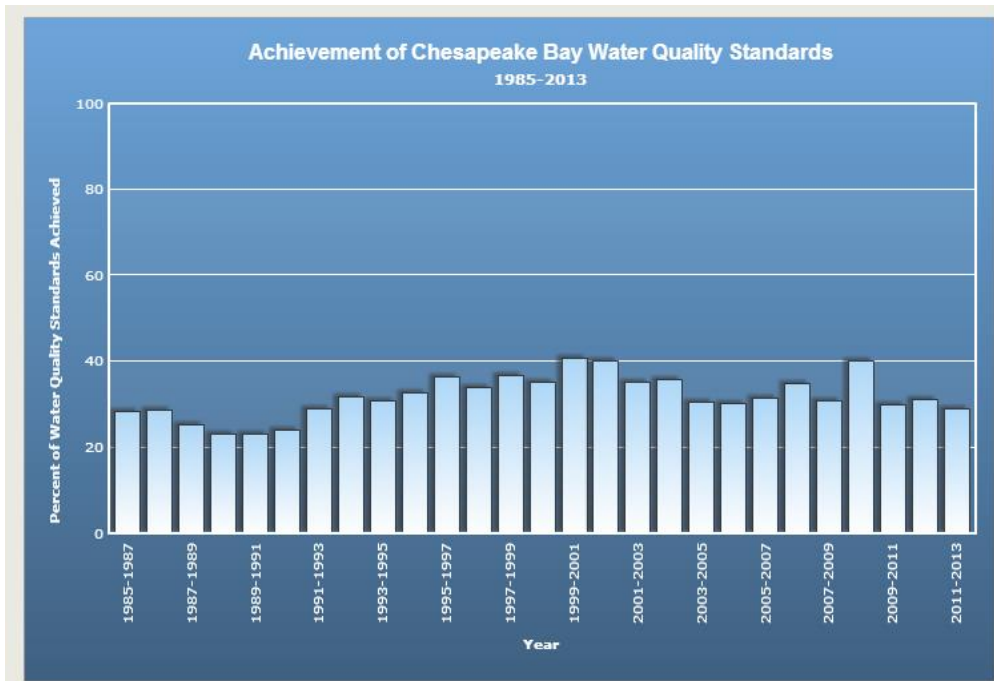
Indicator: Number acres protected with breakdown of forests/wetlands/other

Gaps: Smaller jurisdictional reporting, breakdown of forests/wetlands



# Water Quality

Lucinda Power



Indicator: Not explicitly stated in MS – Standards Achievement?

- Reporting of water quality management practices.
- Analyzing trends of nitrogen, phosphorus and sediment in the watershed.
- Assessing attainment of dissolved oxygen, chlorophyll, and water clarity/SAV standards.

Gaps: **More monitoring**

# Local Leadership & Diversity

Mary Gattis & Reggie Parrish

- Indicators for the 2 outcomes: **none**
- Gaps: **Research on how others measure these social aspects, Indicator, TBD with indicator development**

# Forest Buffer & Tree Canopy

Sally Claggett

Indicators:

- Forest Buffer
  - Long-term (potential): miles (or %) of riparian zones forested (net)
  - Short-term (ongoing): miles planted
- Tree Canopy
  - Long-term (potential): net acres of tree canopy
  - Short-term: acres planted



Data to come from high-rez imagery analysis

Gaps: Will the imagery provide all monitoring needs?, analysis methods

# Fish Habitat & Forage Fish

Bruce Vogt & Tom Ihde



## Indicators:

- Fish Habitat: **Under development, In need of workshop**
- Forage Fish: **Being determined through funding**

**Gaps: zooplankton & phytoplankton monitoring, measuring fish in actual habitat areas, shallow water monitoring, understanding habitat requirements of fish**

# Monitoring Progress / Indicators

Well-developed with small improvements needed to current program:

- Protected lands
- Water quality

Monitoring plan in place (may need some guidance):

- Oyster (part of restoration plan)
  - Which metrics before considered restored?
- Forest Buffer
- Tree Canopy
  - Possible Seminar: Will the high resolution imagery answer all of our questions?

In need of increased research/monitoring:

- Forage Fish
- Fish Habitat
- Diversity
- Local Leadership



## Action Items

What are the next steps with these highlighted needs?

What are the priorities?

Feedback to the IA Team for future meetings

# Tetra Tech Funding

- Awarded 75 hours
- Assisting 3 groups with assessing progress
  - Black Duck – Habitat GIT
  - Local Leadership Workgroup
  - Stewardship GIT (Citizen Stewardship / Environmental Literacy)
- STAR is the liaison between these groups and TetraTech
- Currently establishing directives

# Tetra Tech Funding

## Stewardship (and Leadership)

- Requested 5-6 hours for initial findings
- *“examples of how others (anywhere in the world) measure any of the three levels of stewardship: individual behavior, volunteerism, leadership”*
- *“identification of successful models of measurement”*

## Action Items

Should we split the hours evenly or more to black duck?

Discuss further use of the remaining hours

- Habitat Goal Implementation Team
  - Contacts: Jennifer Greiner, USFWS Liaison at the CBP (jennifer\_greiner@fws.gov), Lacy Alison, USFWS Division of Bird Habitat Conservation (lacy\_alison@fws.gov)
  - Assistance requested with development of a habitat-based indicator (using average patch size for black duck habitat in priority areas) for reporting interim progress toward the population-based outcome
  - Assistance requested with recommendations for associated monitoring needed to report such progress. These would be based on food availability and specific wetland types needed by wintering black ducks as documented by the Atlantic Coast Joint Venture. The monitoring program should document that the management strategy is being implemented through habitat-based actions (e.g. number and contiguity of acres conserved or restored in target areas) and determine if the conservation actions are accomplishing the desired result. The following may be useful in developing outcome measures and determining the success of the strategy recommendations: Annual waterfowl surveys for population totals, Harvest data, Acres of wintering and breeding black duck habitat restored, enhanced, or protected, and Kilocalories of food availability as recently calculated and mapped by the Black Duck Joint Venture.
  - Options paper for indicator should be delivered in May 2015 and recommendations for associated monitoring should be delivered in November 2015.

- Stewardship Goal Implementation Team
  - Contact: Amy Handen, amy\_handen@nps.gov
  - Baseline data for Citizen Stewardship and Environmental Literacy is expected in fall 2015. This project would entail using available baseline data, facilitate development with stakeholders of a useful indicator to measure progress toward respective outcomes. This includes soliciting feedback on application of indicators on adaptive management that will guide statistical analysis on the baseline data in order to aggregate data into potential indicators of progress for environmental literacy and citizen stewardship in the watershed
  - The output would include a report with a summary of the statistical analysis conducted. Deadline is December 1, 2015.
- Partnering and Leadership Goal Implementation Team / Local Leadership Workgroup
  - Contact: Reggie Parrish, parrish.reginald@epa.gov, 410-267-5772
  - Request that contractor support workgroup in identifying baselines and a establishing a plan for monitoring progress to be included in the Local Leadership management strategy. Determining baseline level of knowledge and capacity is important in order to begin measuring progress.