April 12-13, 2016

UMCES Horn Point Laboratory, Cambridge, MD

REWIND

AND LOOK FORWARD

INTEGRATING AND LEVERAGING MONITORING NETWORKS TO SUPPORT THE ASSESSMENT OF OUTCOMES IN THE NEW BAY AGREEMENT

The workshop steering committee requests your participation as one of a group of experts who will join a discussion on identifying approaches to overcoming barriers and aligning program objectives to develop recommendations on an integrated regional monitoring program.

Peter Tango USGS@CBPO
STAR Meeting Presentation
8/25/2016

This workshop focused on:
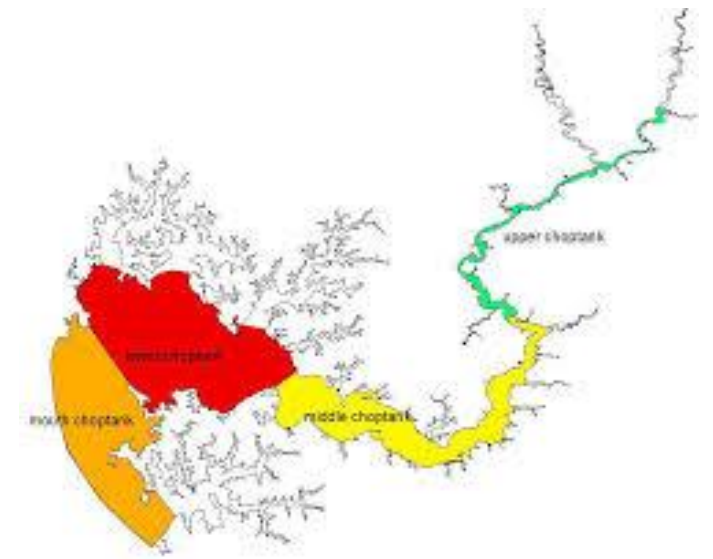
1) a single watershed, the Choptank River, and

2) a subset of 7 of the 31 outcome areas under the 2014 Chesapeake Watershed Agreement to explore barriers to integration and how overcoming barriers to program integration could further address themes that
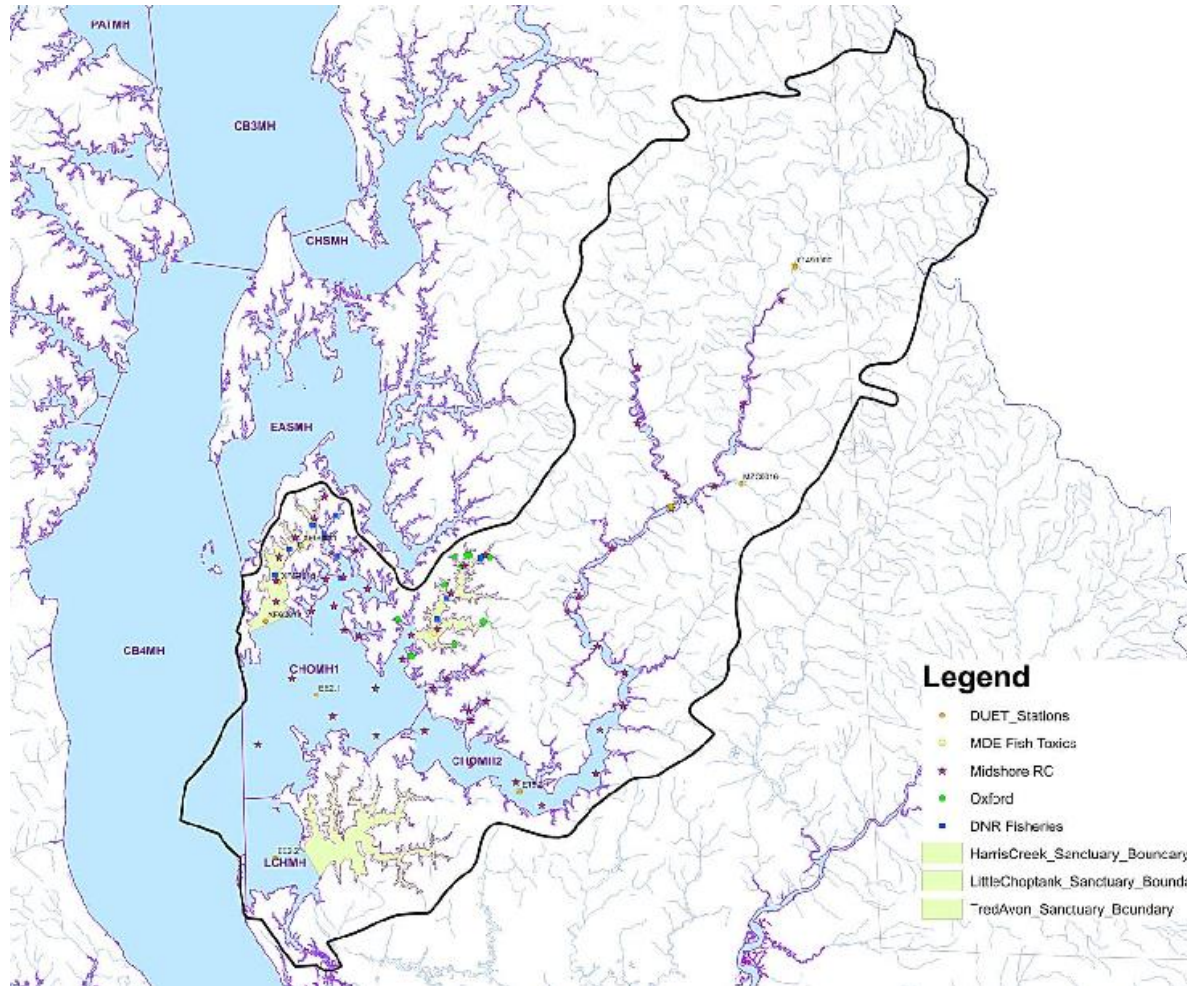
Process: Review Monitoring Assets

Table 2. Indicator Action Team Chesapeake Bay Program Office gap analysis of indicator needs and subsequent monitoring support associated with tracking progress towards achieving the 31 outcomes of the 2014 Bay Agreement. May 2015 status report (Mindy Ehrich CBPO).

Green (Established)	Yellow (Advanced Progress)	Red (Undeveloped)
Fish Passage	Oyster	Forage Fish
SAV	Forest Buffer	Fish Habitat
Water Quality	Tree Canopy	Black Duck
Protected Lands	Brook Trout	Toxic Contaminants Research
Public Access	Environmental Literacy	Toxic Contaminants Policy and Prevention
		Healthy Watersheds
		Citizen Stewardship
		Local Leadership
		Diversity
		Climate Resiliency

Unclassified indicator status at this time:
Blue Crab, Stream Health, Wetlands, Land Use Options,
Land Use Metrics & Methods

Legend

- ● DUET_Stations
- ○ MDE Fish Toxics
- ★ Midshore RC
- ● Oxford
- ■ DNR Fisheries
- ▬ HarrisCreek_Sanctuary_Bouncary
- ▬ LittleChoptank_Sanctuary_Boundar
- ▬ TredAvon_Sanctuary_Bcundary

Monitoring Parameter	Programs
Bay grasses	• VIMS SAV aerial photography • MD DNR SAV transects
Water Quality	• MD DNR tidal monitoring • Cooperative Oxford Lab in Tred Avon River • Thomas Fisher (UMCES) watershed BMP effectiveness • NOAA Satellite TSS • Mid-Shore River Keeper Conservancy water quality
Fisheries	• Cooperative Oxford Lab fish community composition in Tred Avon River • NOAA oyster restoration sites • NOAA fish sampling
Toxic contaminants	• MDE Fish tissue sampling
Benthic communities	• MD DNR MSS Sites

Process: Understanding and Envisioning Solutions to Barriers

Recognized barriers to monitoring network integration

- Different protocols in use between programs for monitoring that same parameter(s)
- Unaware of what other groups are doing and what each other needs ✔
- Different instrumentation sensitivity limits
- Overcoming vested interests
- "This is how we always do it"
- Lack of aligned objectives ✔
- Establishing the validity and integrity of data collected by different programs
- Lack of rewards to keep people engaged
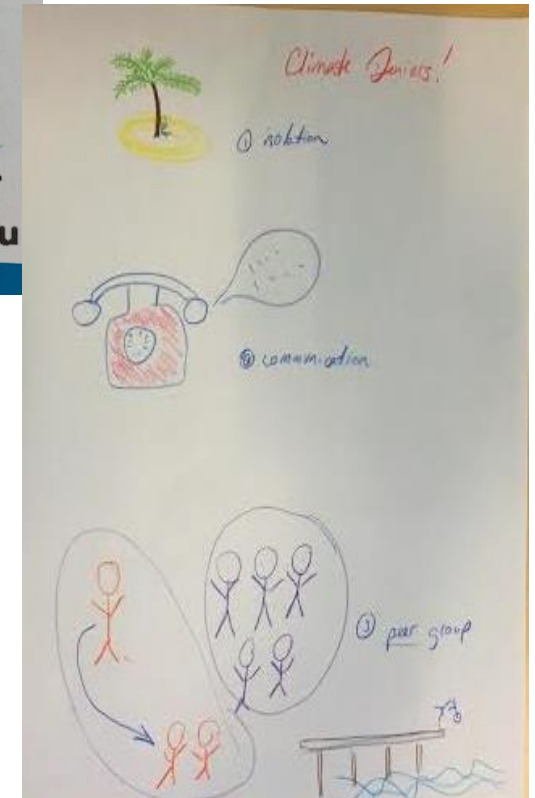- Funding ✔
- Database compatibility

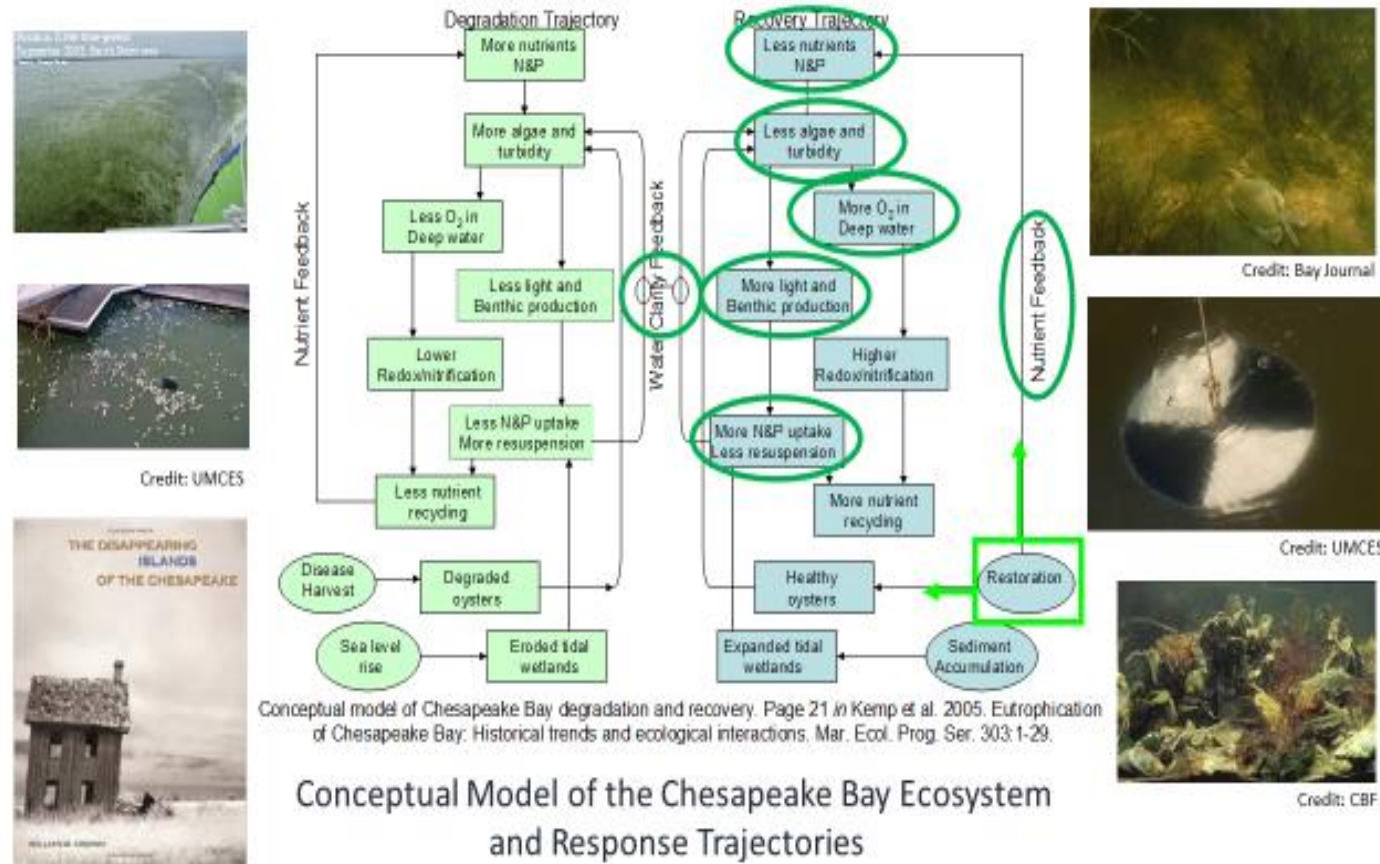# Process: Break out groups taking solutions and developing plans for collaborations
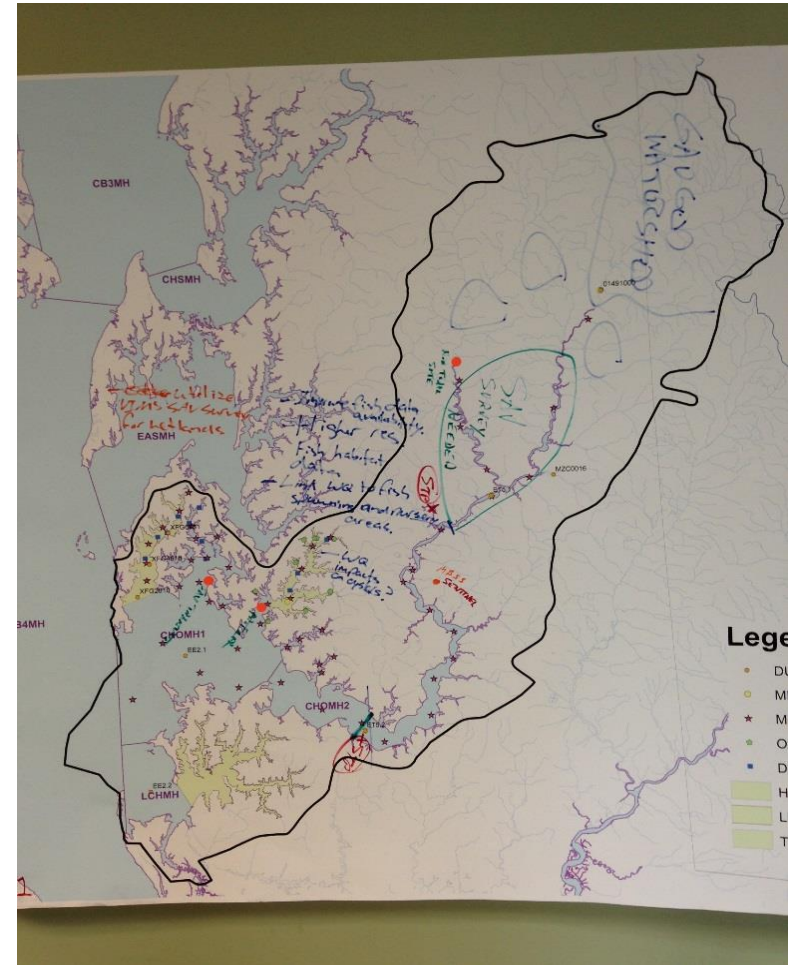
Solutions to Barriers to Improve Monitoring Program Integration

- Solution 1. Aligning objectives. Agree upon a common road map.

Conceptual model of Chesapeake Bay degradation and recovery. Page 21 in Kemp et al. 2005. Eutrophication of Chesapeake Bay: Historical trends and ecological interactions. Mar. Ecol. Prog. Ser. 303:1-29.

Conceptual Model of the Chesapeake Bay Ecosystem and Response Trajectories

Solutions to Barriers to Improve Monitoring Program Integration

- Solution 2. Multiple Communication Approaches
  - **Synthesize and communicate monitoring results to diverse stakeholders to overcome communication gaps.**
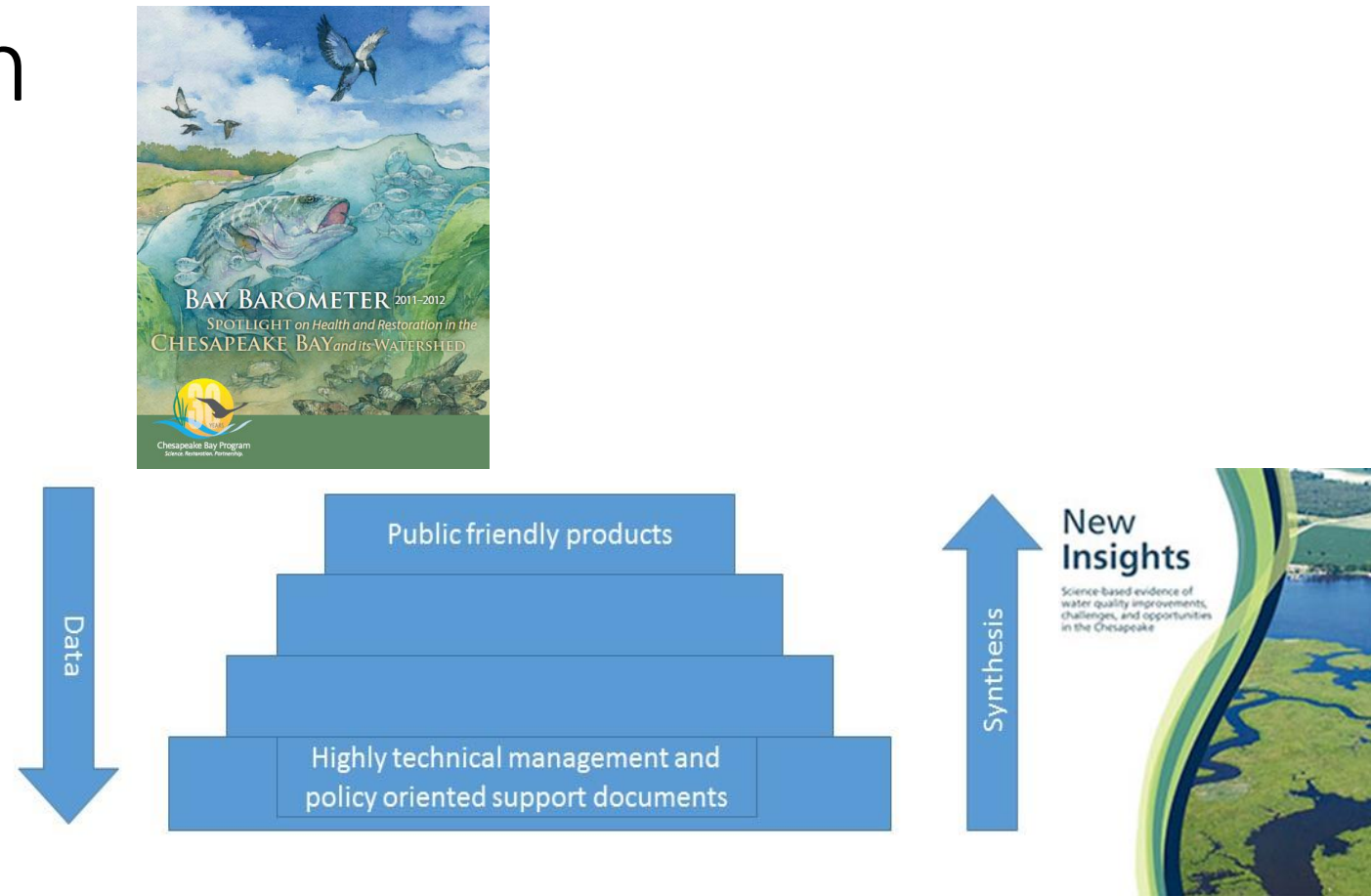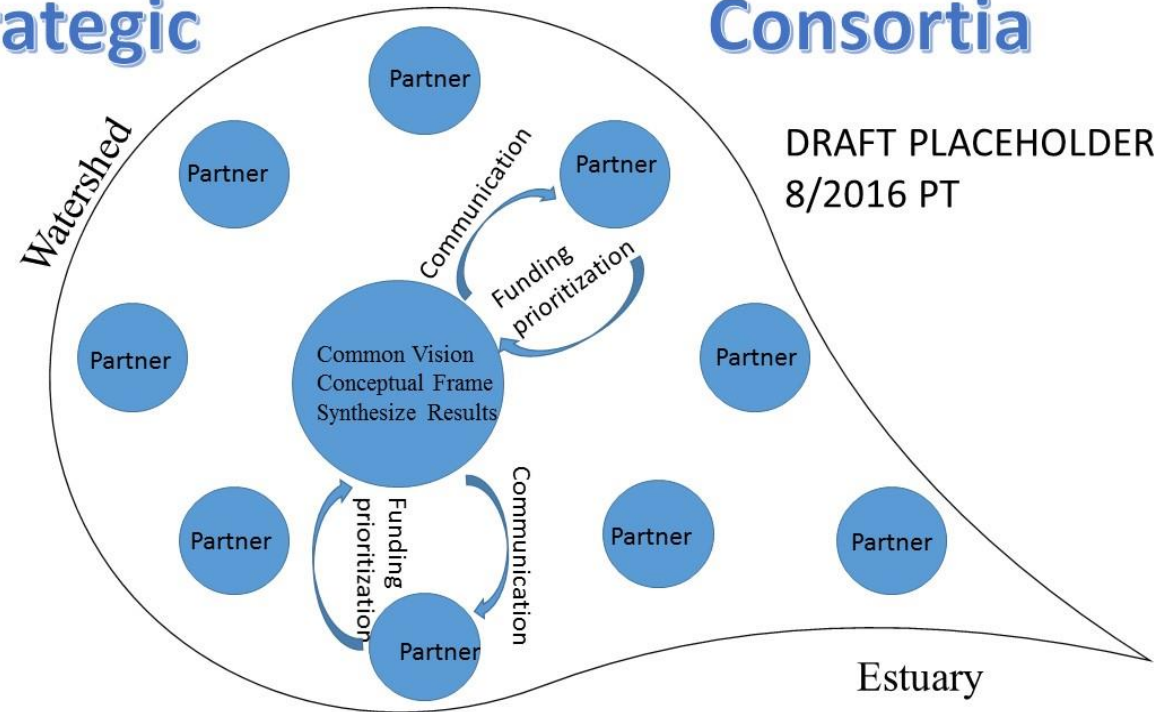

Figure 6. Conceptual model of product development to address Communication gaps of diverse stakeholders.

Solutions to Barriers to Improve Monitoring Program Integration

- Solution 3. Strategic Consortia prioritizing funding under a common vision

Strategic **Consortia**

DRAFT PLACEHOLDER
8/2016 PT

Watershed

Partner
Partner
Partner
Partner
Partner
Partner
Partner
Partner
Partner

Communication

Funding prioritization

Common Vision
Conceptual Frame
Synthesize Results

Funding prioritization

Communication

Estuary

Solutions to Barriers to Improve Monitoring Program Integration

- Solution 4. Decision-oriented, placed-based interactive workshops
  - The combined efforts of CBP-STAC and STAR can continue to provide venues for the tributary and regional scale networking necessary to support solution oriented monitoring program integration.

  - Develop a workshop rotation to other locations through STAR-GIT discussions that define objectives, data needs, sampling needs to support their goal and outcome assessments and the indicators

Actions from the Workshop:

- SAV programming has involved conducting a bay grasses workshop (Brooke Landry MD DNR and SAV WG Chair) with Riverkeepers in MD to foster additional support for SAV species level information.

- Kara Skipper (CRC staff) is coordinating a mentorship with a St. Mary's College senior to pilot tidal benthic macroinvertebrate monitoring collection approaches for future use by citizen scientists to support the needs of fish forage assessments in the Bay.
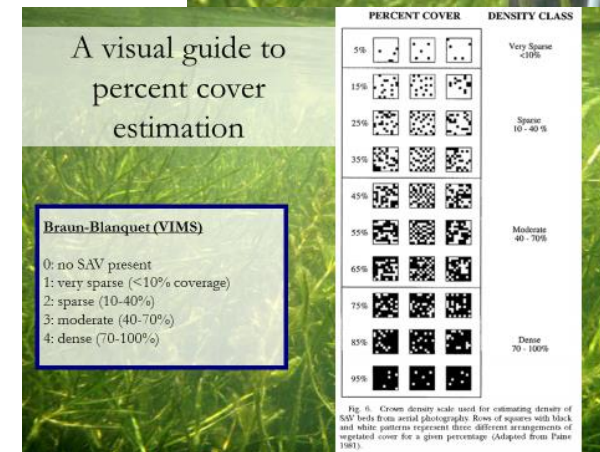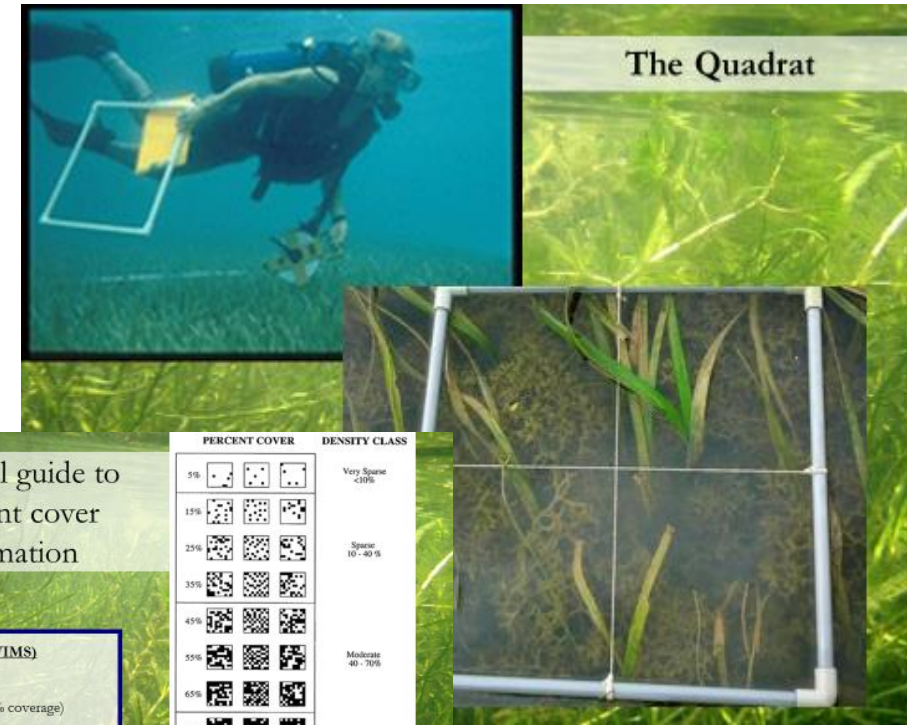
Discussion today:
What watershed should STAR aim for next?
Which outcomes should we direct our attention to?

April 10, 2005

This Image is Available at
Maryland DNR's
www.eyesonthebay.net

Image courtesy of
MODIS Rapid Response Project
at NASA/GSFC
250 meter resolution
http://rapidfire.sci.gsfc.nasa.gov/
subsets/?AERONET_Wallops/