# *Sustainable Fisheries Goal Implementation Team*

**Peyton Robertson, Sustainable Fisheries GIT Chair**
**Chesapeake Bay Program**

March 13th, 2013

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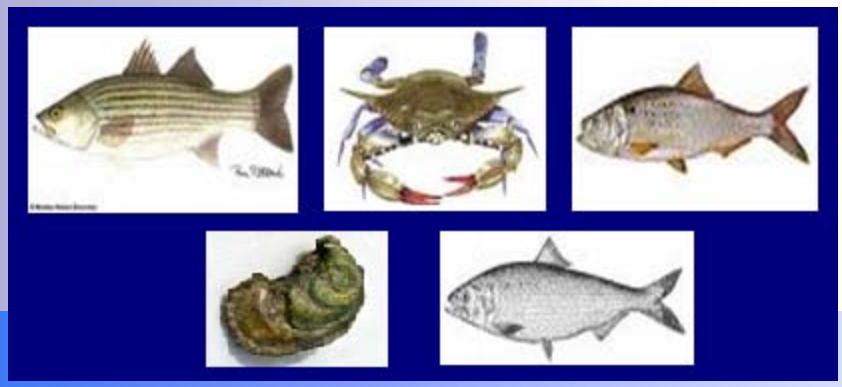
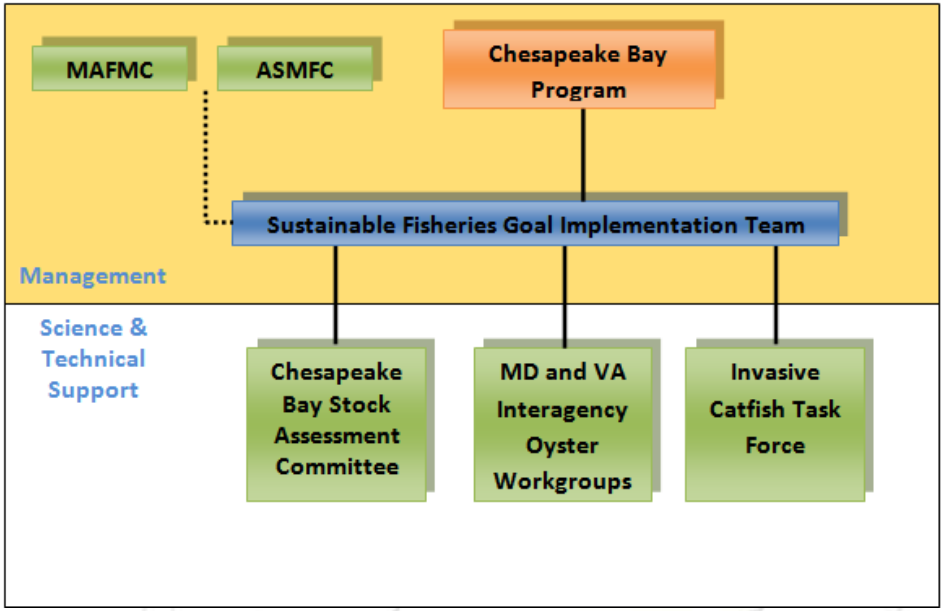
# Our Charge

- Facilitate regional fisheries management
- Better connect science to fisheries policy
- Engage stakeholders
- Incorporate habitat and other factors into fisheries management





# Fisheries GIT Goals

- Overarching Goal: Restore, enhance, and protect the finfish, shellfish and other living resources, their habitats and ecological relationships to sustain all fisheries and provide for a balanced ecosystem in the watershed and bay.
  1. Maintain sustainable blue crab population based on the current 2012 target of 215 million adult females (1+ years old) and continue to refine population targets between 2013 through 2025 based on best available science.
  2. Restore native oyster habitat and populations in 20 tributaries by 2025.
  3. Improve fisheries health and production by connecting land use decision making with ecosystem science and policy and creating a precautionary management approach to ensure the sustainability of Chesapeake bay fisheries resources across jurisdictions.

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# Fisheries GIT "Top 7" List

- Blue Crabs
  1. Maintain sustainable population (i.e. between the abundance and exploitation targets and thresholds) by **preparing and delivering the 2013 Blue Crab Advisory Report and convening the Fisheries GIT to discuss the report and adapt management** approaches when necessary.
  2. CBSAC will recommend **male blue crab reference points** to be adopted and implemented by the Fisheries GIT ExComm in 2013.
  3. In order to make progress towards developing an interjurisdictional blue crab allocation framework, we should **initiate discussions on an allocation process and develop an allocation framework** complete with preliminary numbers for each jurisdiction.
  4. Continue blue crab commercial accountability pilot project. **Evaluate efficacy of accountability program in MD and consider application in VA and PRFC**.

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# Fisheries GIT "Top 7" List

- Oysters
  5. Continue to make progress towards the EO oyster outcome to restore 20 tributaries by 2025 by **selecting priority tributaries and develop tributary specific restoration plans** (blueprints) through the MD and VA interagency oyster teams.
  6. **Identify a single tributary that by the oyster metrics criteria is seen as restored** and then quantify the **ecosystem servic**es and fishery benefits.

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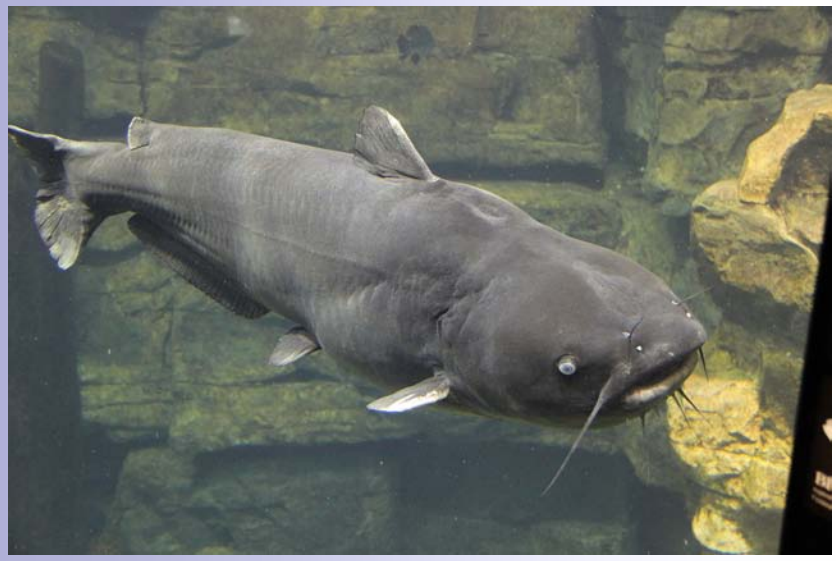
# Fisheries GIT "Top 7" List

- Invasive Catfish
  7. Convene the **Invasive Catfish Task Force to coordinate research findings and develop and present their policy options/recommendations** to implement the goals from the Invasive Catfish Policy Statement.



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# Blue Crab Update

- CBSAC has developed and recommended male specific conservation targets and thresholds
  - We are seeking GIT endorsement on these tomorrow morning
  - Jurisdictions will then work within their agencies to implement these targets and thresholds

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# Invasive Catfish Update

- Invasive Catfish Task Force was charged with coordinating research, increasing public awareness, and recommending options to reduce spread and mitigate impacts
- Task Force met November 9th to discuss options and develop strategies
- Tasked to develop an Action Plan by May 2013.

Maryland Record Blue Catfish (84 lbs, 52 in, Potomac River, 8/13/12)

James River Record Blue Catfish (102 lbs; 2009)

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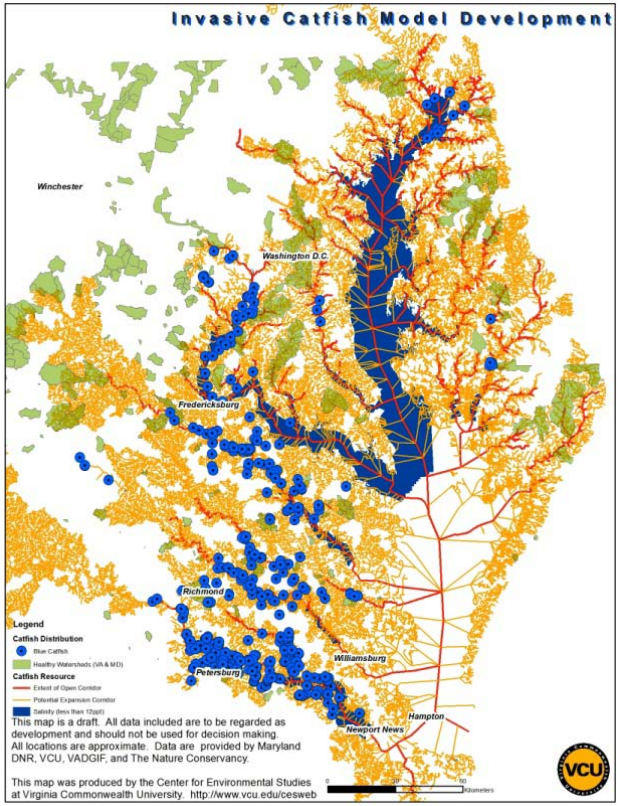
# Invasive Catfish Research

1. Predation by introduced blue catfish as a potentially important and novel source of mortality for selected fishery resources in Chesapeake Bay waters
   - Greg Garman (ODU)
2. Estimating Population Size and Survival Rates of Blue Catfish In Chesapeake Bay Tributaries
   - Mary Fabrizio (VIMS)
3. Characterizing the growth dynamics of blue catfish in the Chesapeake Bay watershed
   - Rob Latour (VIMS)
4. Expansion of the blue catfish fishery as a population control strategy: influence of ecological factors on fish contaminant burdens
   - Robert Hale (VIMS)
5. Dynamics and Role of Blue Catfish *Ictalurus furcatus* in Tidal Rivers of Virginia
   - Donald Orth (Virginia Tech) & Yan Jiao (Virginia Tech)

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# Oyster Update

- The Interagency Workgroups identified tributaries in both MD and VA to begin restoration and metrics applications
  - MD: Harris Creek & Little Choptank
  - VA: Lynnhaven & Lafayette
- The Draft Harris Creek Blueprint has been completed
  - The Blueprint describes what restoration practices (i.e. shell/spat plantings, costs, etc.) needs to take place in order to be deemed successful through the metrics

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# Oysters: Next Steps

- Oyster population stock assessment and biological reference points
- Quantify ecosystem services (i.e. water quality, nitrogen removal, fisheries benefits, etc.)
- Role the Fisheries GIT in aquaculture

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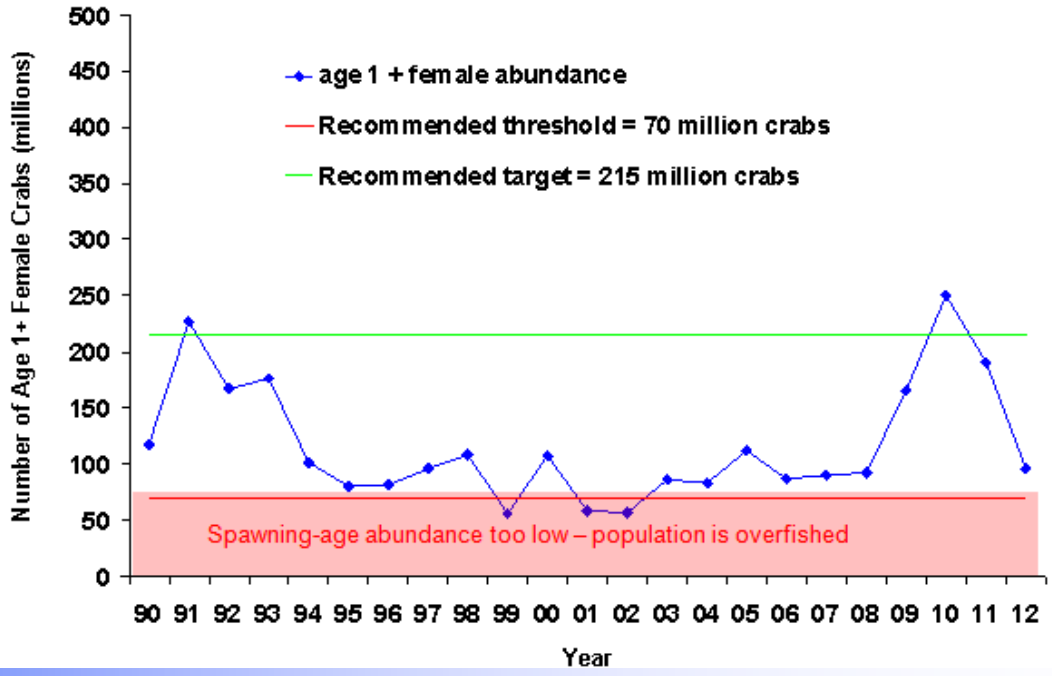
# Connecting Science to Management

- 2012 CBSAC Advisory Report
  - Lynn Fegley (MD DNR)
  - Current report utilizes new female specific targets which demonstrate the population is still being managed on a sustainable level

Figure 3. Winter dredge survey estimate of **abundance of female blue crabs age one year and older** (age 1+) 1990-2012 with female-specific reference points. These are female crabs measuring greater than 60mm across the carapace and are considered the 'exploitable stock' that will spawn within the coming year.

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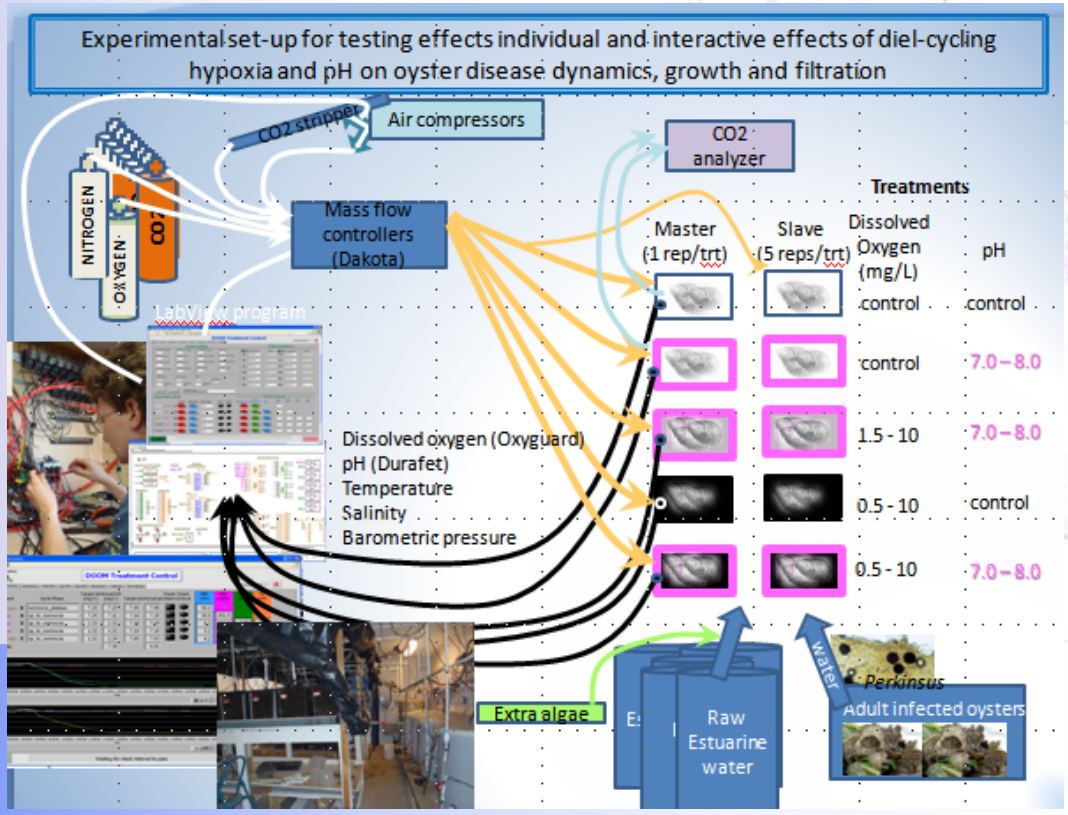
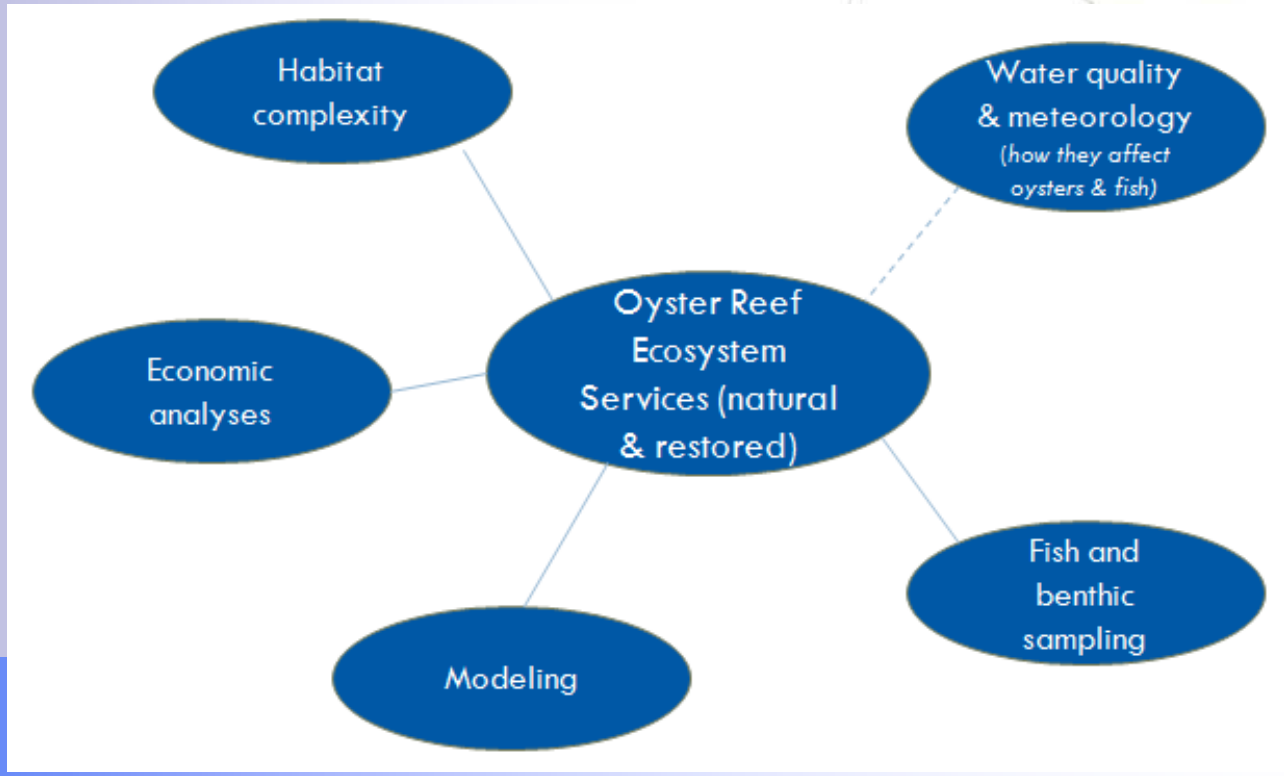
# Connecting Science to Management

- Hypoxia & living resources: Perspectives from Chesapeake Bay and cross-system comparisons
  - Denise Breitburg (SERC)
  - We may need to approach fisheries management more aggressively in order to buffer against increased nutrients and multiple stressors



# Connecting Science to Management

- Assessing the Ecosystem Services of Oyster Restoration
  - Howard Townsend (NCBO)
  - Ecosystem modeling to better assess restoration design, management, and effects on the ecosystem as a whole

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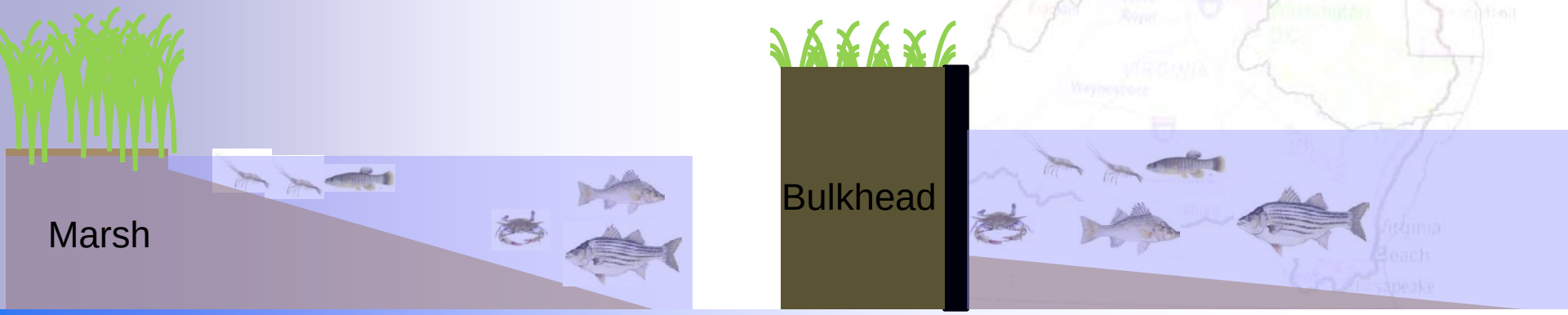
# Connecting Science to Management

- Forage Fish & Land Use
  - Thomas Jordan (SERC), Matthew Kornis (SERC), and Ed Houde (UMCES)
  - Highest fish diversity at marsh habitats
  - Altered shorelines appeal to species that orient to 3D structure
  - Similar patterns at riprap and bulkhead; building riprap doesn't necessarily solve shoreline-alteration issues

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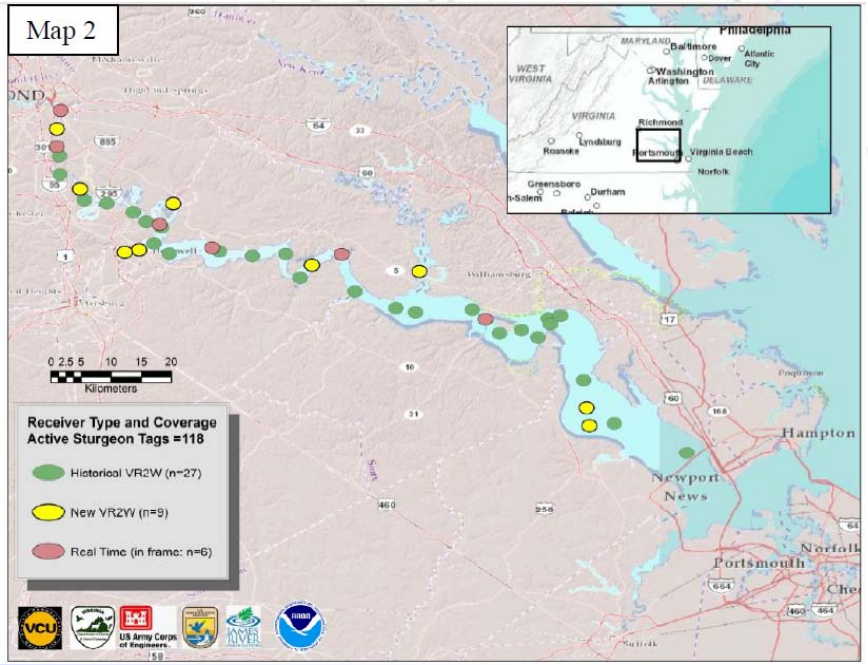
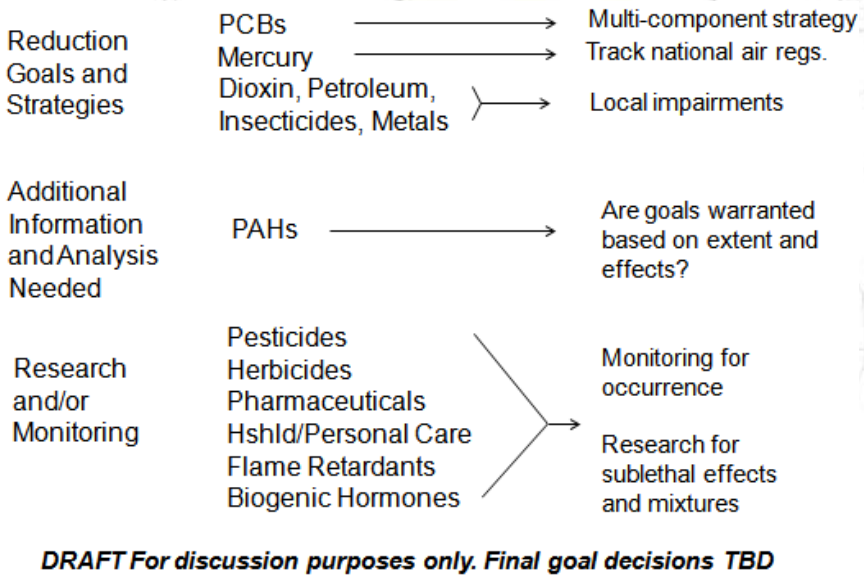
# Connecting Science to Management

- Passive Acoustic Telemetry Array
  - Greg Garman (VCU)
  - The Navy has deployed over 70 telemetry receivers to track tagged fish at the mouth of the Bay and throughout the York River for sturgeon tracking.
  - These receivers will allow greater fish monitoring capabilities for managers.
  - GIT is discussing opportunities to use the array for striped bass and catfish tracking.

# Connecting Science to Management

- Toxic Contaminants in the Chesapeake Bay
  - Scott Phillips (USGS) and Greg Allen (CBP)
  - Widespread extent and severity of contaminants
  - Current controls producing minimal results



# Connecting Land use and Fisheries Sustainability

- In June we identified key areas of high fisheries value
  - MD: Mattawoman Creek, North East River, and Deer Creek
  - Potomac River: Wicomico River
  - VA: Dragon Run and Chickahominy River
- Presented at 2012 Virginia Coastal Partners Workshop on Dec 5th

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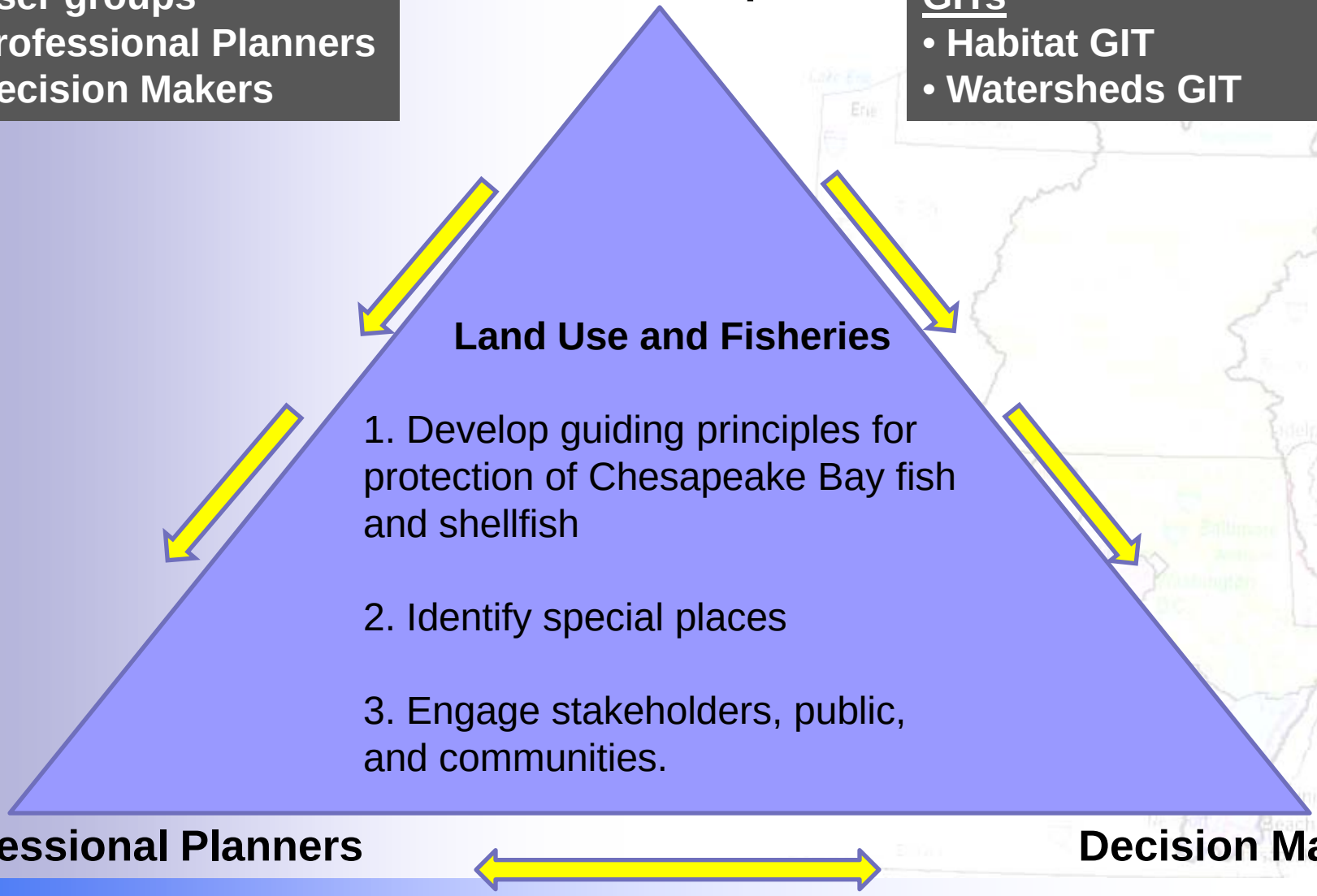
**Target Audiences**
**User groups**
**Professional Planners**
**Decision Makers**

**User Groups**

**Collaborate with other GITs**
- **Habitat GIT**
- **Watersheds GIT**

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# Considerations for STAC

- Increase fisheries and expertise within the CBP
- Advance ecosystem based management (habitat, fish, land use connections)
- Bridge the gap between land use planning and natural resource management (social science)

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