

# STAR: Addressing the New Bay Agreement and meeting the needs of the Goal Implementation Teams

Scott Phillips STAR meeting, June, 2014



#### New Bay Agreement and STAR

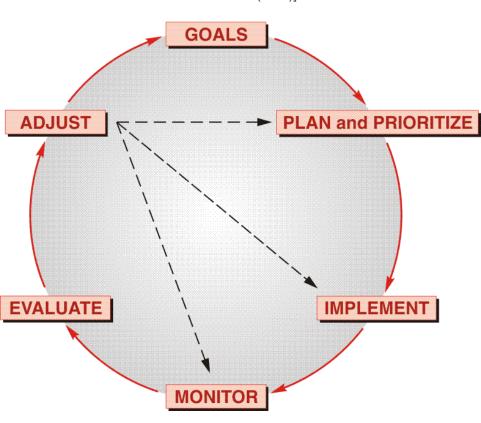
- Watershed agreement
- Goal Teams
  - Management strategies
  - Implementing practices and policies
  - Progress toward outcomes
  - Adjust strategies (and outcomes)
- STAR: Coordinate science providers to enhance support for Goal Teams
- Today: Discuss ideas how and what



#### CBP decision framework

#### ADAPTIVE MANAGEMENT FOR ECOSYSTEM DECISION MAKING

[Modified from Williams and others (2007) and Levin and others (2009)]



- Management strategies
  - Practices and policies
  - Understanding of factors
  - Models and decision tools
- Inform implementation
  - Where, multiple benefits
  - Monitoring
    - Measuring outcomes
    - Monitoring opportunities
    - Status and trends
- Evaluate and adjust
  - Explain change and effect of policies
  - Adjust management strategies (every 2 years)
  - Goals and Outcomes



#### Suggested Approach

- Management Strategies:
  - WG leading management strategies for each outcome
  - Priority science needs to develop management strategies
  - STAR works with WG to find expertise
- Measuring outcomes
  - STAR works with WG to find expertise
- Identify additional monitoring and research
  - STAR helps to assess existing networks
  - ID data gaps and seek funding/partners
  - Contact and advocate to additional science providers



#### Sustainable Fisheries: Data

- Blue Crab (winter dredge Survey -- relative abundance data, annual harvest numbers)
- Oyster Restoration (habitat assessment, annual number of acres receiving restoration treatment for selected tributaries, ecosystem services)
- Jurisdictional Annual Oyster Surveys
- Striped Bass Coast-wide Spawning Stock Biomass and Fish mortality
- Striped Bass Juvenile Indices
- Menhaden (Potomac River pound net index, Fish mortality)
- American Shad (Fish count and catch-per-unit effort data)
- Organizations involved in data collect, analysis, and/or funding: Jurisdictions, MDNR, VIMS, MD and VA Oyster Interagency Teams, ASMFC, PRFC, PA Fish and Boat Commission, VA DGIF, CBSAC, NOAA, academic research partners, USACE, ORP, UMCES



## Research and Monitoring Needs: Sustainable Fisheries

- **Fish Habitat Outcome** more information and better delineation of habitat types and fish utilization, including spawning, juveniles, forage areas, etc. Quantifying how much habitat is needed to support sustainable fish populations (thresholds?)
- Forage Outcome currently identifying key forage species to begin an assessment of their contribution to the Bay forage base. This will entail analyzing data from multiple Bay academic institutions and agencies. Additional surveys and/or enhancement of existing surveys for betting monitoring
- Socioeconomic data need to link New Agreement outcomes to people (Ex: value of sustainable fish populations and available fishing opportunities for local communities)
- Invasive catfish better monitoring and early detection; distribution and tributary-specific population estimates; predation impacts on fish species
- Blue Crabs CBSAC has identified specific research needs including analysis of summer trawl survey data and analysis of new sampling designs in the Winter Dredge Survey. Research needs are listed in each Blue Crab Advisory Report; Socioeconomic data – need to link New Agreement outcomes to people



### Next steps

- Focus on management strategies
- Monitoring needs
  - BASIN "phase 3" process
- Integrate STAR support for Goal Teams