



# Forage

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*Through the Chesapeake Bay Watershed Agreement, the Chesapeake Bay Program has committed to...*

## **Goal:** *Sustainable Fisheries*

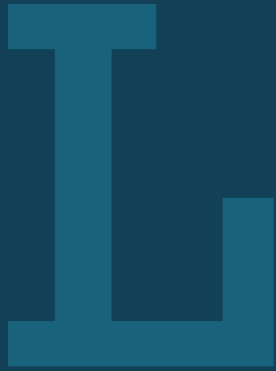


**Outcome:** Continually improve the partnership's capacity to understand the role of forage fish populations in the Chesapeake Bay. By 2016, develop a strategy for assessing the forage fish base available as food for predatory species in the Chesapeake Bay.



## What is our Expected and Actual Progress?

- The outcome is on track
- Science is progressing and being used to describe the status of forage in the tidal Bay



# Learn

*What have we learned in the last two years?*



## Successes and Challenges

- Received NOAA and CBP funding to address science priorities
- Linked variability in forage abundance with Bay conditions
- Prioritized indicators to describe forage status
- Remain interested in addressing monitoring gaps



## On the Horizon

### Science

- Some research findings show that environmental factors (e.g., spring warming, area of suitable habitat) drive forage species abundance; these findings inform indicator development
- New data may enhance indicators (telemetry arrays, striped bass abundance estimates, hypoxia profilers)

### Fiscal

- NOAA and CBP funding helped address science priorities

### Policy

- Emphasis on implementing Ecosystem Approaches to Fishery Management facilitates management application of science

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# Adapt

*How does all of this impact our work?*



## Based on what we learned, we plan to ...

- Pilot utility and evaluate maintenance costs of four indicators that assess the condition of forage in the Bay
  - warming water temperature
  - habitat suitability forecast
  - benthic invertebrate biomass
  - shoreline hardening
- Establish a process to regularly communicate indicator results and implications to managers and the public





## Equitable and inclusive restoration ...

- Modify funding opportunities to better support researchers at HBCUs and MSIs and include students of color in projects
- Identify opportunities to connect forage condition, recreational fishing, and fish consumption in urban areas
- Coordinate with Fish Habitat Action Team on more diverse recreational fishing engagement



# Help

*How can the Management Board  
lead the Program to adapt?*



## Help Needed

- Connect information on forage status and trends to habitat conservation, land use, and other policy decisions (e.g., incorporate findings into CBC meetings)
- Emphasize the need for shallow-water fish surveys and plankton monitoring to explore possible correlations between living resource data with water quality parameters



# Discussion