Synergistic Chesapeake Bay Agreement Goals and Outcomes

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Definitions

- **Synergistic** – "Relating to the interaction or cooperation of two or more organizations, substances, or other agents to produce a combined effect **greater than the sum** of their separate effects." (Oxford Languages)
- **Co-benefits** – Where one practice benefits multiple goals or outcomes (e.g. wetland re-establishment benefits water quality and habitat)
- **Ecosystem services** - "the **benefits humans obtain** from ecosystems that support (directly or indirectly) their survival and quality of life" (Millennium Ecosystem Assessment 2005).
- **Functional Uplift** - "Quantifiable environmental benefit or gain of the restoration and management actions taken."

Chesapeake Bay Study – 1976-1983

*"The Bay is an organic whole. If one part is damaged, all parts are affected. It is of little use to study one link in an environmental chain without relating it to the whole. If the Chesapeake Bay is to survive, it must be addressed as an entity, as a **total system** without duplication and without omission."*

Charles McC. Mathias
United States Senator, Maryland

Chesapeake Bay Habitat Restoration: A Framework for Action

October, 1995

Chesapeake Bay Program

Printed by the U.S. Environmental Protection Agency for the Chesapeake Bay Program

Four target habitat areas were selected to focus restoration efforts using selected indicator species:

1) **freshwater tributaries and streams,** including nontidal wetlands, focus on the needs of anadromous fish for spawning and nursery areas;

2) **shallow water areas (tidal)**, including submerged aquatic vegetation beds, focus on the needs of juvenile fish and crabs for refuge and feeding areas for waterfowl;

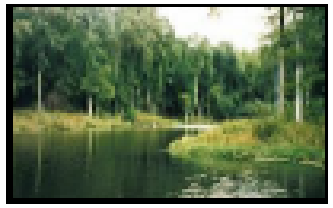
3) **open water areas (tidal)** focus on both adult fish feeding and mobility and oyster reef communities; and

4) **islands and inlands**, including forested wetlands, focus on waterfowl and neotropical birds.

Sustainable Fisheries Goal

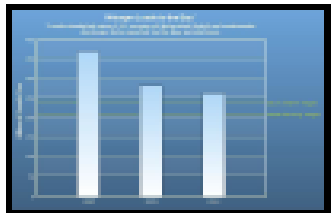
- *Blue Crab Abundance Outcome*
- *Blue Crab Management Outcome*
- *Oyster Outcome*
- *Forage Fish Outcome*
- *Fish Habitat Outcome*

Vital Habitats Goal



- *Wetlands Outcome - Black Duck*
- *Stream Health Outcome - Brook Trout*
- *Fish Passage Outcome*
- *SAV Outcome*
- *Forest Buffer Outcome*
- *Tree Canopy Outcome*

Water Quality Goal



- *2017 Watershed Implementation Plans (WIP) Outcome*
- *2025 WIP Outcome*
- *Water Quality Standards Attainment and Monitoring Outcome*

Toxic Contaminants Goal

- *Toxic Contaminants Research Outcome*
- *Toxic Contaminants Policy and Prevention Outcome*

Healthy Water-sheds Goal

- *Healthy Waters Outcome*

Stewardship Goal

- *Citizen Stewardship Outcome*
- *Local Leadership Outcome*
- *Diversity Outcome*

Land Conserva-tion

- *Protected Lands Outcome*
- *Land Use Methods and Metrics Development Outcome*
- *Land Use Options Evaluation Outcome*

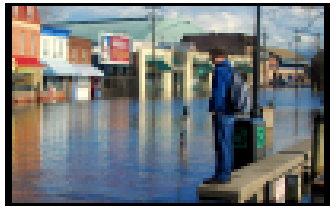
Public Access Goal

- *Public Access Site Development Outcome*

Environmental Literacy Goal

- *Student Outcome*
- *Sustainable Schools Outcome*
- *Environmental Literacy Planning Outcome*

Climate Resiliency Goal



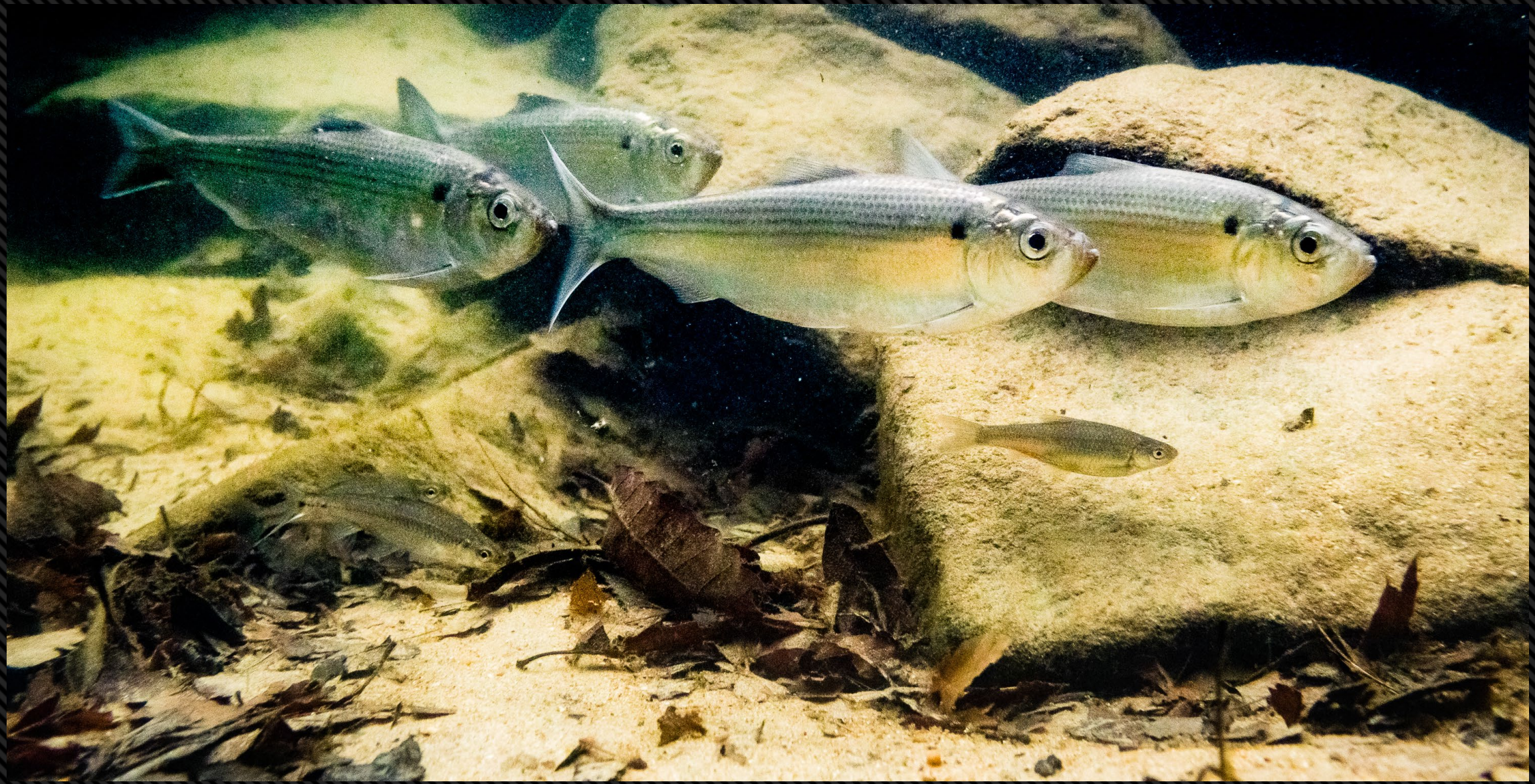
- *Monitoring and Assessment Outcome*
- *Adaptation Outcome*


Sustainable blue crab population
and a stable and productive crab fishery


Restored native oyster habitats and population in 10 tributaries


130,000 acres of SAV


8% increase in brook trout
occupied habitat




900 miles per year of
forest buffer restored

Urban tree canopy expanded by 2,400 acres


All practices in place
to achieve Water
Qualtiy Standards


2 million acres of
lands protected

Climate Adaptation

85,000 acres of wetlands restored

150,000 of degraded wetlands enhanced

Wetlands: The Uber-Outcome (aka Keystone)

- Water Quality
- Habitat
  - Black Duck
  - Brook Trout
  - Stream Health
  - Fish Habitat
  - Forage Fish
- Climate Adaptation
- Healthy Watersheds

Interdependencies

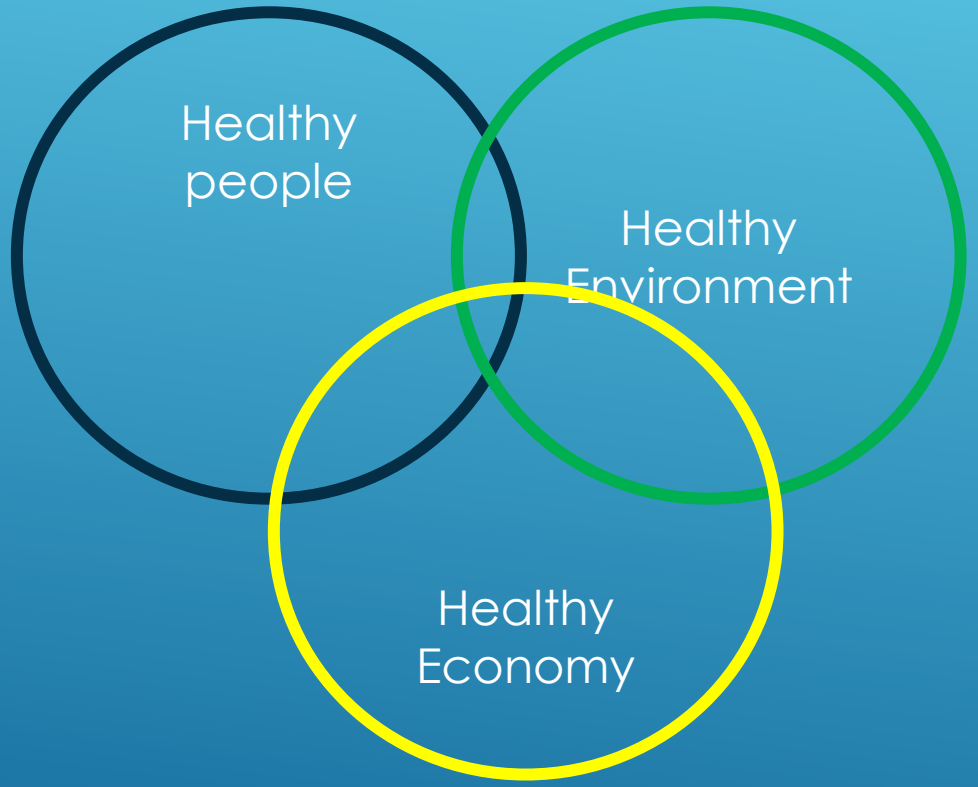
Tidal Synergies

- Climate Resiliency
- Protected Lands
- Tidal Wetlands
- Submerged aquatic vegetation
- Oyster Restoration
- Black Duck
- Water Quality
  - Living Shorelines

Nontidal or Watershed Synergies

- Nontidal Wetlands
- Forest Buffers
- Land Protection
- Stream Health
- Water Quality
  - Stream Restoration
  - Floodplain Reconnection

VISION: "*The Chesapeake Bay Program partners envision an environmentally and economically sustainable Chesapeake Bay watershed with clean water, abundant life, conserved lands and access to the water, a vibrant cultural heritage and a diversity of engaged citizens and stakeholders.*"



Road To Recovery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