Attaining water quality standards in the Chesapeake Bay and its tidal tributaries: a showcase for adaptive management.

Coastal and Estuarine Research Federation
November 5, 2013
San Diego, California

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Decision Framework

Applying the Decision Framework to Attaining Water Quality Standards in the Chesapeake Bay and Its Tidal Tributaries

CBP Water Quality Goal Implementation Team
*Published: July 16, 2012*
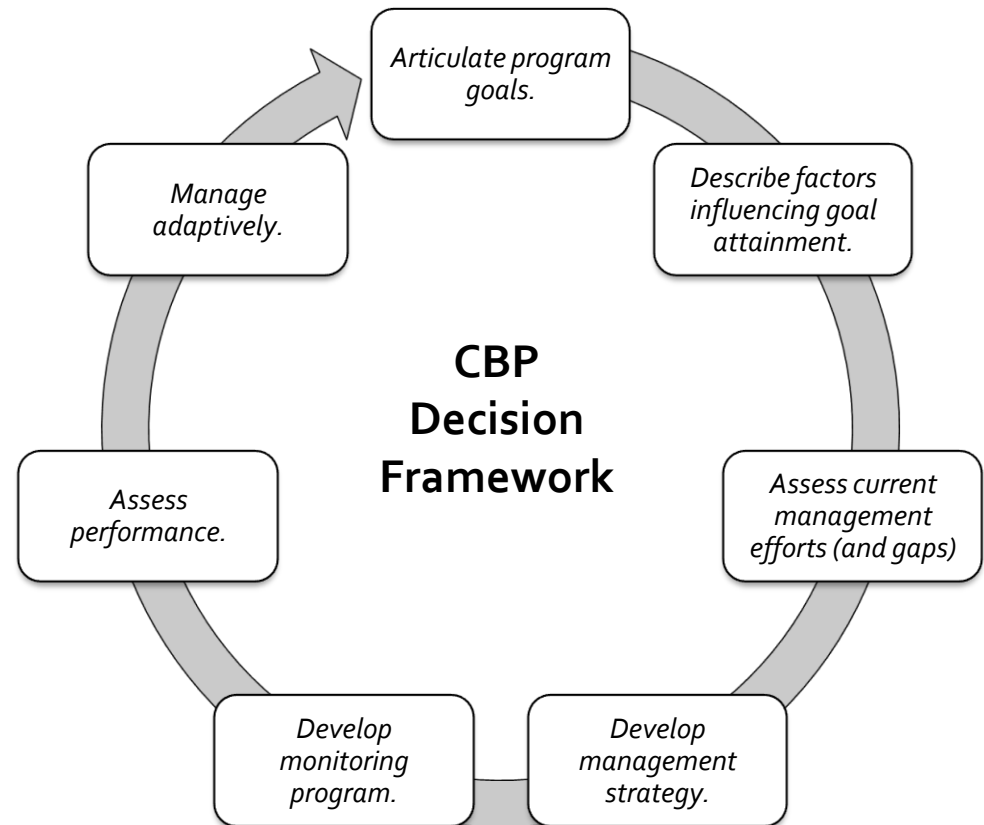
Assessing Performance

- **Executive Order Outcome**

  - 60% of segments in attainment by 2025

- **Water Quality Indicator**

  - Metric for monitoring desired outcome

  - Based on criteria standards assessment

    - 3-year rolling average period

  - Reported annually
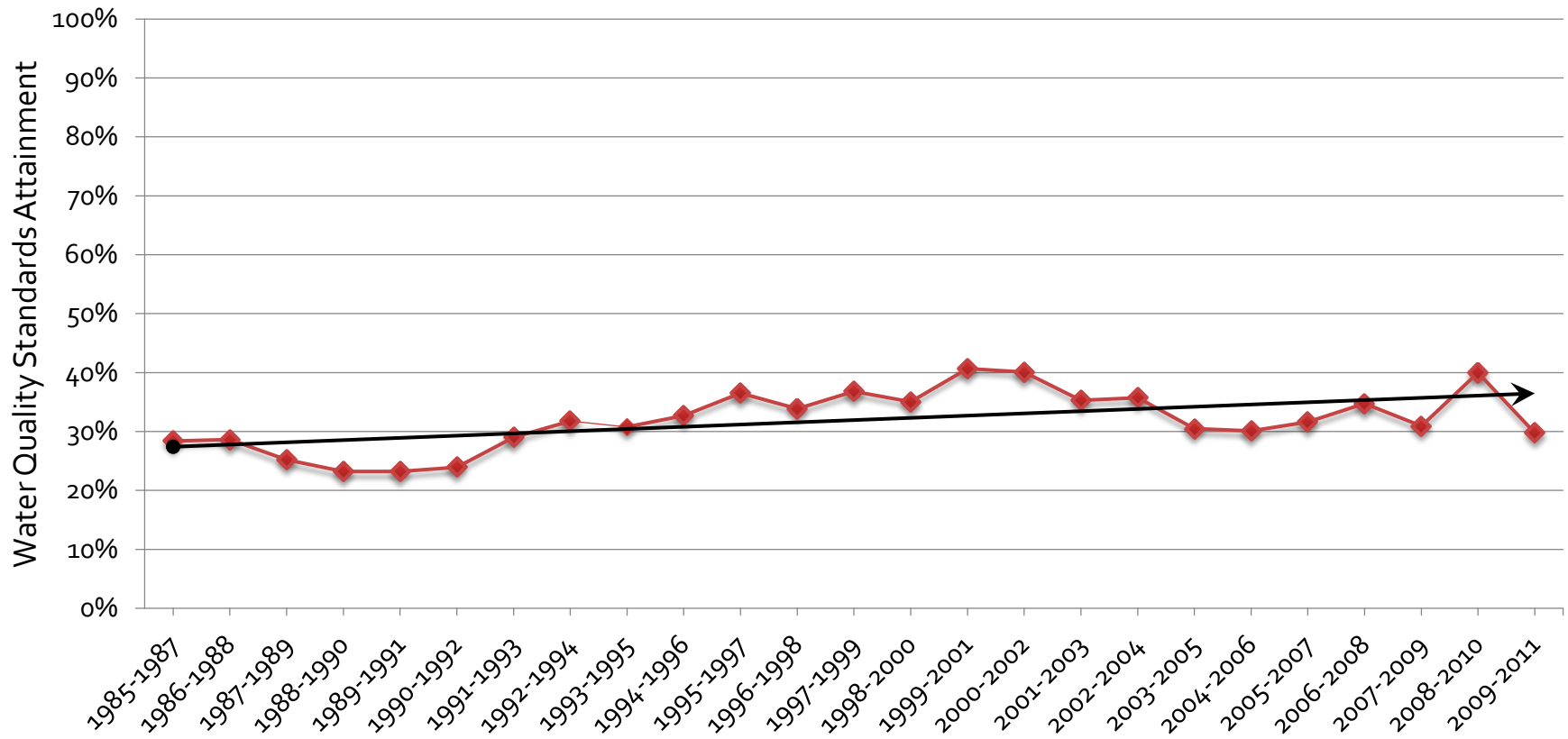
Water Quality Indicator

Purpose:
To measure progress toward the achievement of Chesapeake Bay water quality standards.

- 92 tidal Bay segments
- 291 designated-use segments
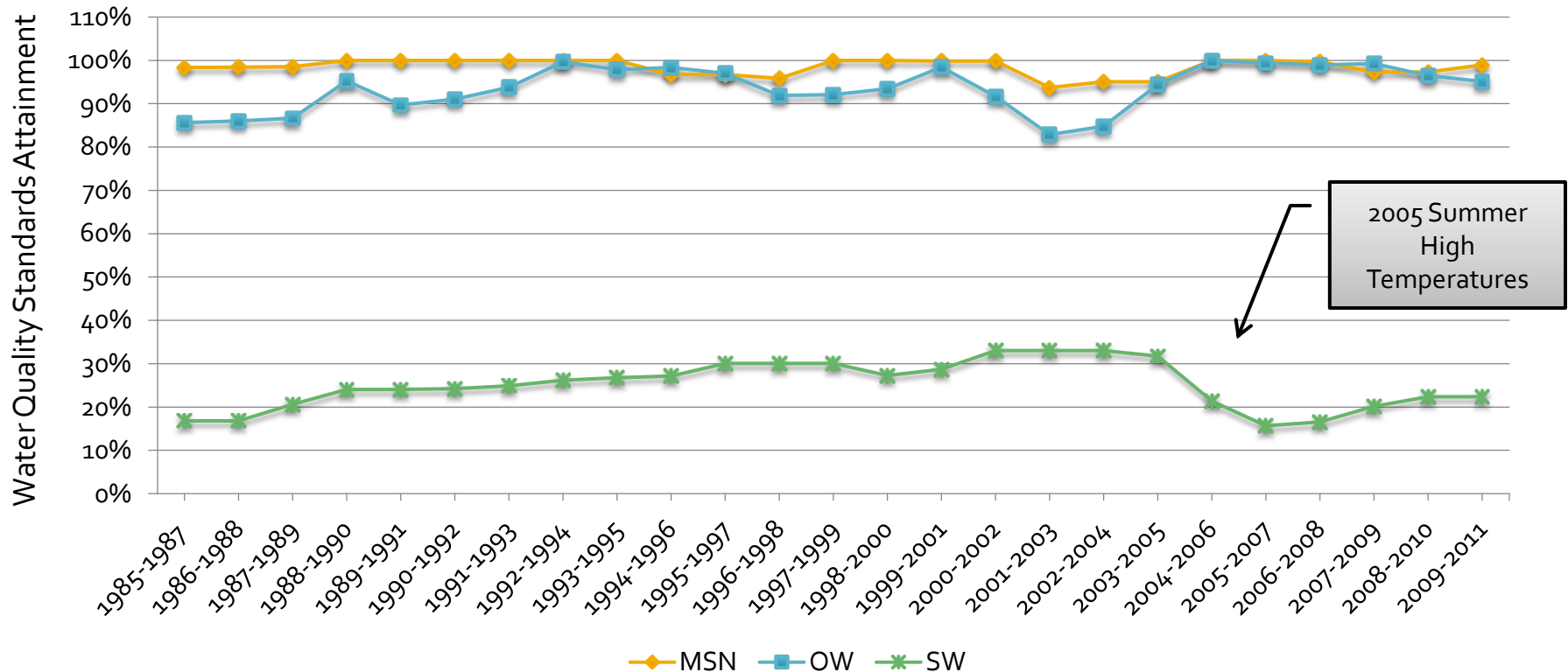- Weighted, area-based approach
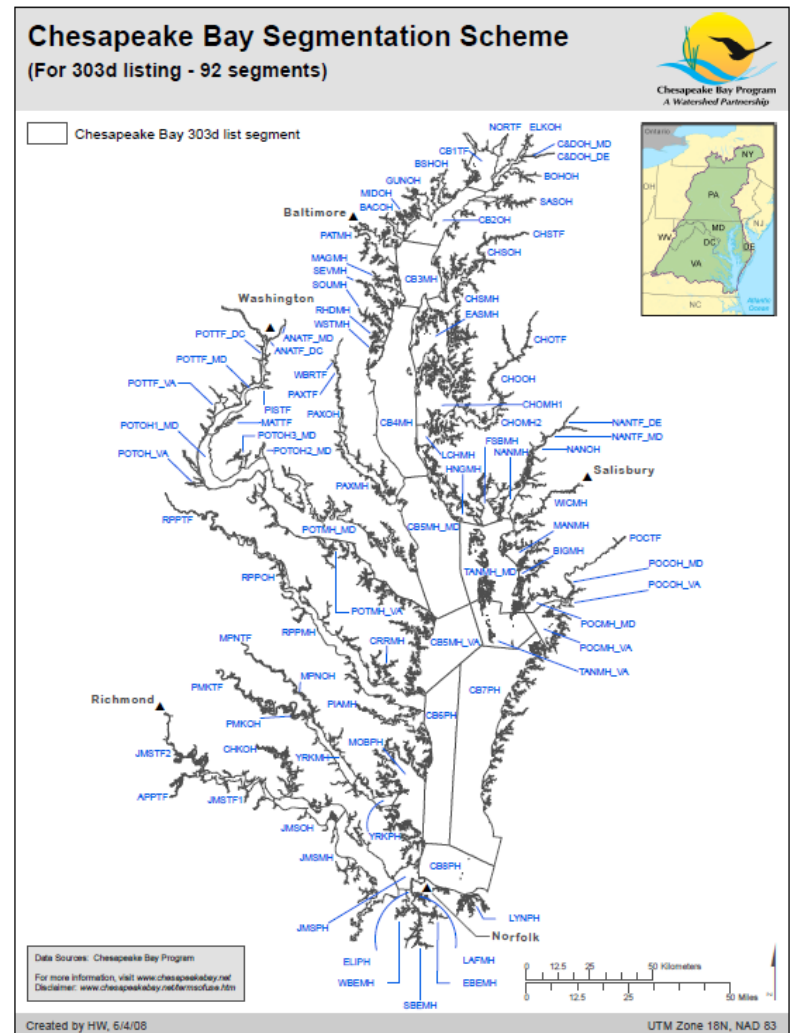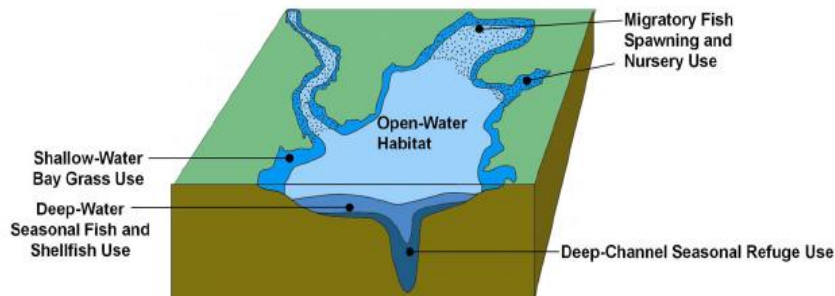
Standards Attainment

Achievement of Chesapeake Bay Water Quality Standards
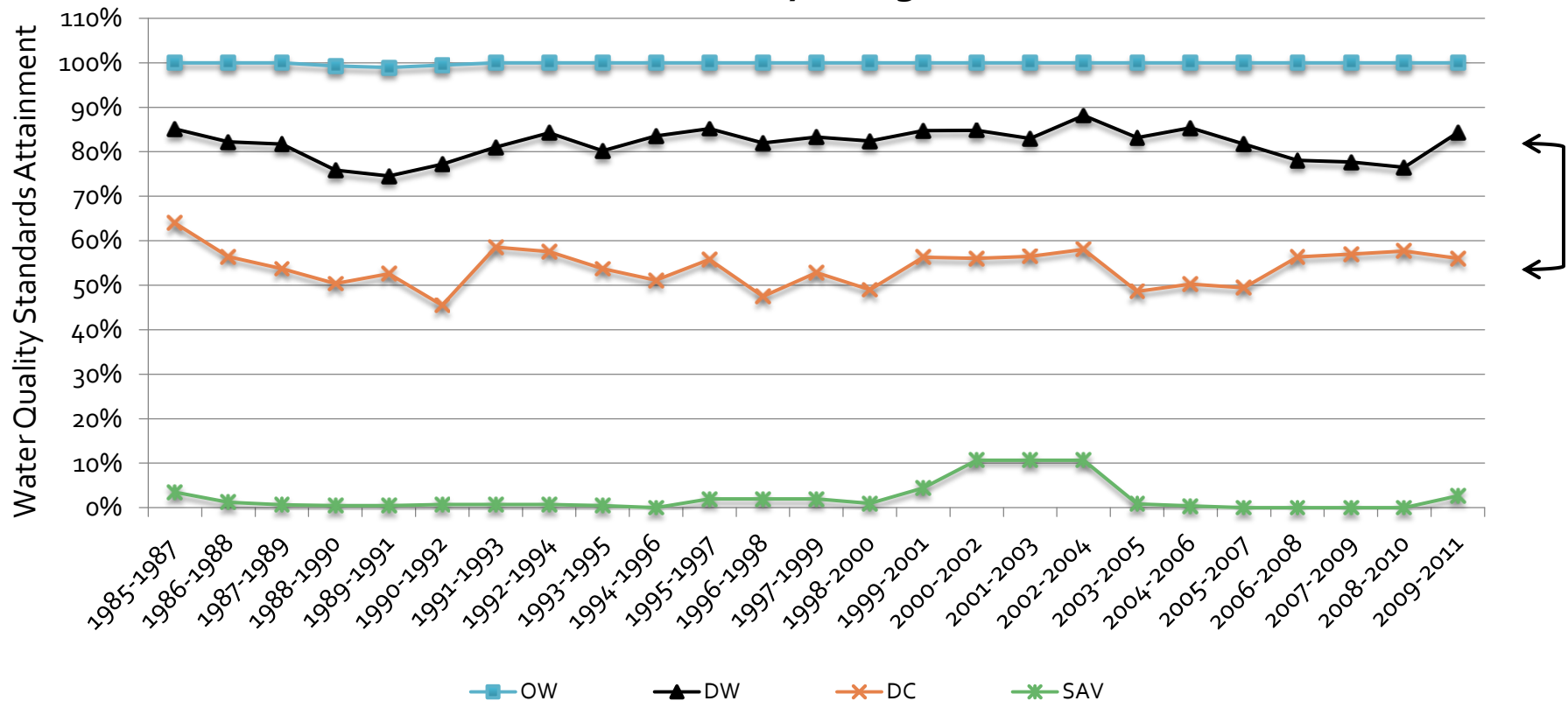## 1985-2011

Virginia Lower York River

Attainment by Designated Use

2005 Summer High Temperatures

Legend: MSN, OW, SW

Improving trend in shallow-water Bay grasses WQS attainment through 2005; then 2005 summer high temperatures depleted eelgrass populations, which have yet to recover fully years later.

Middle Central Chesapeake Bay

Attainment by Designated Use

No noticeable trends in deep water and deep channel designated use criteria attainment over time. Consistent with Bay WQ model scenario findings: need an additional 20-30+ mil. lbs more N reduction to effectively reduce abundant algal populations to enable oxygen to increase.

Adaptive Management

- What can we learn from the observed trends to feedback to our ongoing management efforts?

- Need to make informed adjustments to our current efforts to ensure our goals are achieved