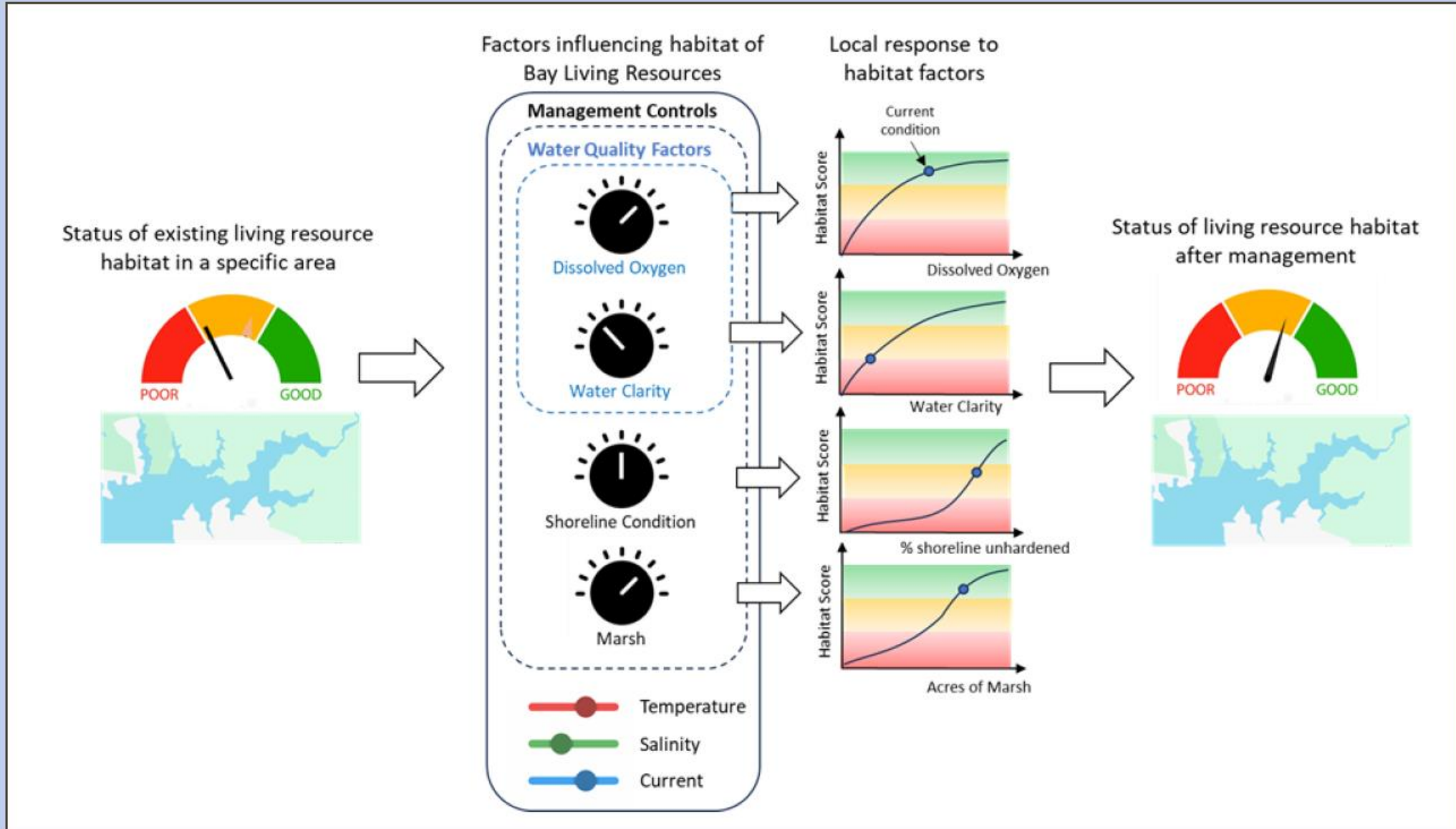# Living Resources Assessment: Update for STAR

August 28, 2025
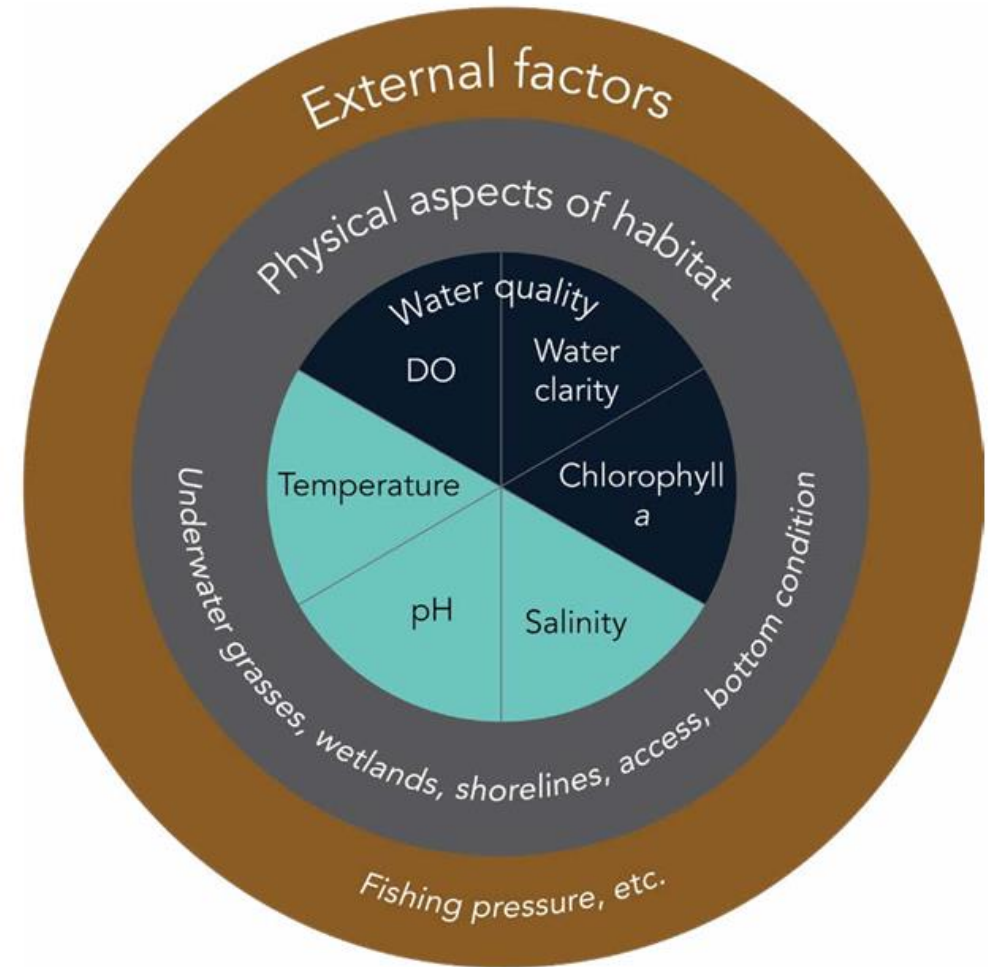
Assessing local water quality, stressor, and habitat conditions

Opportunity to Link

1. Water quality management decisions

2. Potential improvements in tidal living resource responses

Big Picture View

- Fast track to complete a habitat suitability model for the 92 tidal segments of the Chesapeake Bay by 2026

- This project is a priority of the CBP

- Analysis is a step to:
  - 1) Implement recommendations of the CESR report
  - 2) Identify target areas for tiered implementation/targeting
  - 3) First step to implementing the Fish Habitat Outcome under the revised Bay Agreement

Priority Living Resource Habitat Area – identification/quantification

Group Assigned	Fisheries GIT
Task Description	Develop Priority Living Resource Habitat Areas for 92 segments of the Tidal Bay
Task Rationale	CESR report suggests that focus should be given to shallow waters/living resources in addition to meeting the goals of the Bay TMDL. This activity will identify priority living resource areas and give scoring metrics to assist in prioritization of restoration and conservations efforts.
Task Outcome/ "End" User	WIP/Milestone Developers - Will provide critical information to allow/support tiered implementation targets/focused restoration efforts

Assignment (Objective)	Develop a habitat suitability model that focuses on shallow water
	• Select species/life stages representative of Bay LR
	• Determine appropriate habitat variables to evaluate for the above
	    • Water quality
	    • Physical characteristics
	    • Temperature
	    • Etc.
	• Develop habitat rating/scoring for geographic area's of the bay (all 92 segments)
	• Develop GIS based data visualization of LR habitat suitability at the highest resolution available.

MB Champion:	VA/MD/DC should have oversight
Coordination Requirements (MB check-in frequency)	• January 1, 2026 – draft habitat suitability model complete • July 1, 2026 – habitat suitability scoring matrix complete • January 1, 2027 - data visualization tool to utilize suitability model and scoring matrix complete • Should be reported on with Tiered Implementation Targets • Should be reported on with Priority Living Resource Scoring Matrix
Delivery Date (Month or Quarter / Year)	January 1, 2027
CBPO Support	GIS Team, Modeling Team, LR data manager

Motivation & Context

Priority Living Resource Habitat Area -Identification/Quantification

-Task meant to drive a result, not just to improve understanding

-Tie to management priority, tie to water quality and improve living resource outcomes

*February 2026
Fish data are taking longer to compile than originally planned

Charette Outcomes (May 2025)

Project Management

      Bruce Vogt (NOAA), Kaylyn Gootman (EPA)

Teams

      1) Management Relevancy Team (NOAA, EPA)

      2) Analysis Team (VIMS, UMCES, NOAA, EPA)
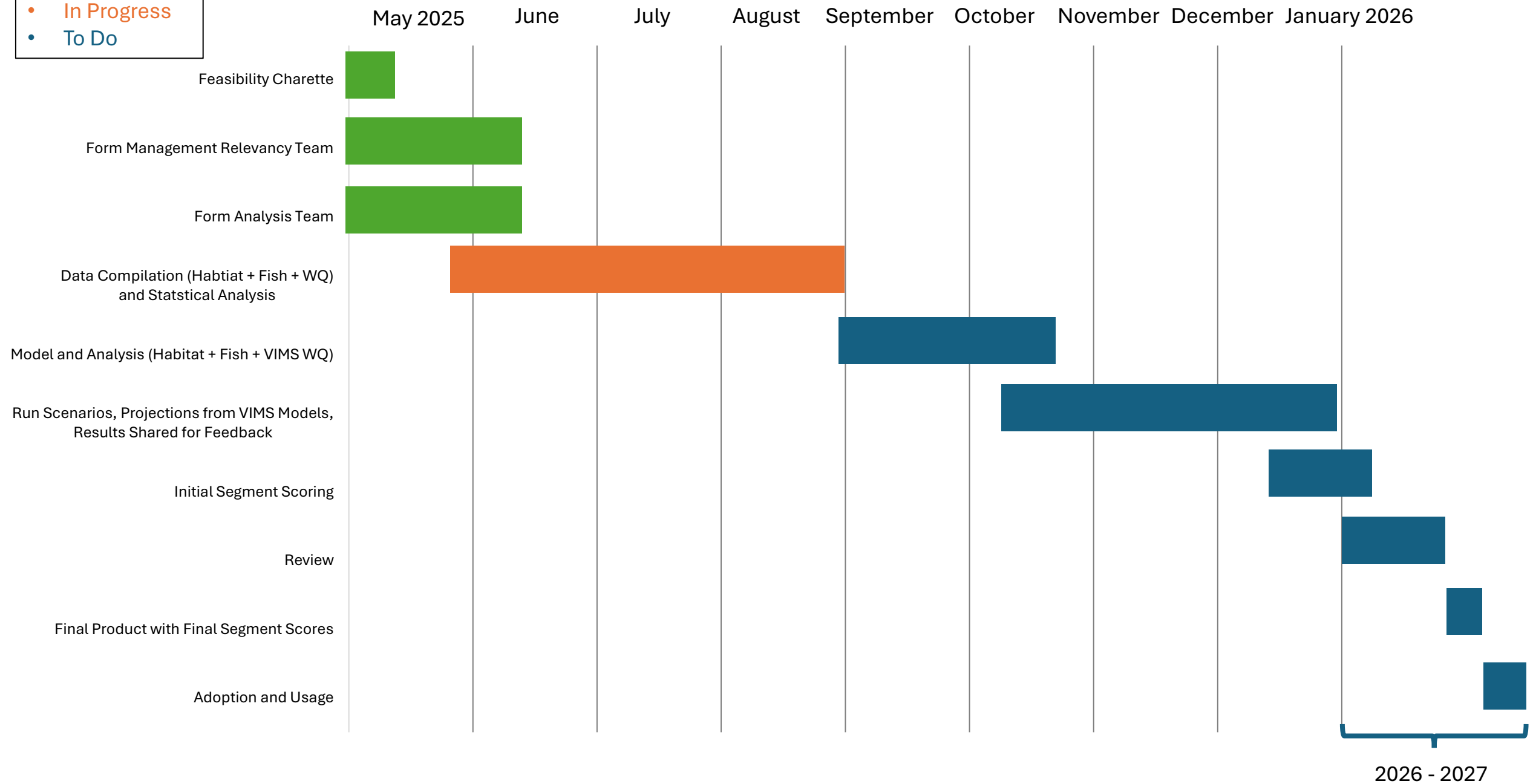
Workplan

      Gantt chart on next slide

Project Support

Scientific and Technical Advisory Committee (STAC)

- Members on the project team
- Members coordinate review

Chesapeake Research Consortium (CRC)

- Coordinate the merit review
- Help with communications
- Coordinate the hybrid meeting of the do-ers (October)
- Technical editing of merit review
- Potential infographics support via Greenfin

Chesapeake Bay Program Data Center

- As needed consult

Chesapeake Bay Program Geospatial Analysis Team (GSAT)

- Public facing viewer/tool
- Potential Plan B doers

Chesapeake Bay Program Communications Team

- Develop communication pieces, webinars
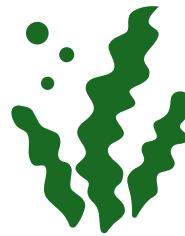
Data Sets

Water Quality Data

Initially from Fish Data

VIMS model

(Later, Phase 7)

Habitat Data

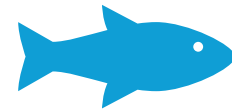Substrate

Tidal Wetlands

SAV

Bathymetry

Oysters

Shoreline

Others

Fish Data

Juvenile Striped Bass

Bay Anchovy

Croaker

Workflow

Habitat Data Compilation
NOAA

↓

Combine Habitat Data with Fish (Plus WQ) Data from VIMS
NOAA

↓

Statistical Analysis: Habitat, Fish, and Fish WQ Data
UMCES, USGS, EPA

↓

Habitat, Fish , WQ Data Combined with VIMS Water Quality Model
VIMS

↓

Model and Analysis
VIMS

↓

Run Scenarios, Projections from VIMS models; Results Shared for Feedback
VIMS

↓

Initial Segment Scoring
VIMS, NOAA, EPA

↓

Review
STAC Coordinated with Outside Experts

↓

Final Product with Final Segment Scoring
CBP

↓

Adoption and Usage
CBP