Chesapeake Bay Trust

Chesapeake Bay Program
Science. Restoration. Partnership.

EPA WETLANDS CAPACITY BUILDING GRANT UPDATE

Tidal Wetlands Work Group
July 16, 2024

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AGENDA

- Overview of Trust & EPA Chesapeake Bay Program (CBP)
- CBP Wetlands Outcome / goal & update (=behind)
- Recommendations for Moving Forward
- Trust Tidal Wetlands Strategic Plan
- Additional Trust Objectives Moving Forward
- Review of your Role as a member of the Tidal WWG
- JamBoard Activity and Discussion

The Trust empowers people to restore natural resources

We do this through…

- Grantmaking
- Capacity Building
- Workforce development
- Convenings
- Partnership-building

We Make Awards & Apply for Grants

~400 awards per year

~$24 million awarded each year

In 2023, the Trust was designated to receive federal funds from the EPA CBP as part of the EPA Wetland Restoration Capacity Building Grant

WILDLIFE & HABITAT

297,976 native trees, pollinator plants, marsh grasses, and other native plants installed

15 acres of forests, stream buffers, seagrass beds, and wetlands created or restored

63 acres of invasive species removed

Over **4 million** of oysters raised and released

STORMWATER

41 acres of impervious surface treated or removed

47,899 square feet of rain gardens created

126 storm drains stenciled

267 rain barrels installed

58,661 pounds of trash removed, including single-use plastics that choke wildlife and harm our ecosystems' health

EDUCATION & OUTREACH

26,880 students engaged by **1,772** teachers

47,194 people educated through **1,647** workshops

20,493 volunteers engaged, donating **121,447** hours

U.S. Environmental Protection Agency (EPA) Chesapeake Bay Program (CBP)

- 2014 Chesapeake Bay Watershed Agreement (amended in 2022)
- Includes all 7 Bay Watershed jurisdictions:
  (NY, PA, DE, MD,VA, WV, and DC)
- Restore the Bay, its tributaries, and the lands that surround them
- **31 outcomes** identified in the Agreement
- To offset wetland losses, a Wetlands Outcome was defined: create or restore 85,000 acres of tidal & nontidal wetlands in watershed by 2025

Wetlands Outcome Update

- Agreement includes numeric VOLUNTARY wetland restoration goals, *but not specifically for tidal or nontidal wetlands*
- Bay Barometer: Bay-Barometer-2023.pdf (d18lev1ok5leia.cloudfront.net)
- Chesapeake Progress: https://www.chesapeakeprogress.com/abundant-life/wetlands

WETLANDS

Between 2014 and 2022, 4,310 acres of wetlands were created or restored, while 60,666 acres were enhanced within the Chesapeake Bay watershed. This meets 5.1% of the goal to create or restore 85,000 acres of wetlands, and a 40.4% achievement of the goal to enhance 150,000 acres of wetlands by 2025.

Wetlands

RECENT PROGRESS **INCREASE** | OUTLOOK **OFF COURSE**

Continually increase the capacity of wetlands to provide water quality and habitat benefits throughout the watershed. Create or reestablish 85,000 acres of tidal and non-tidal wetlands and enhance function of an additional 150,000 acres of degraded wetlands by 2025. These activities may occur in any land use (including urban), but primarily occur in agricultural or natural landscapes.

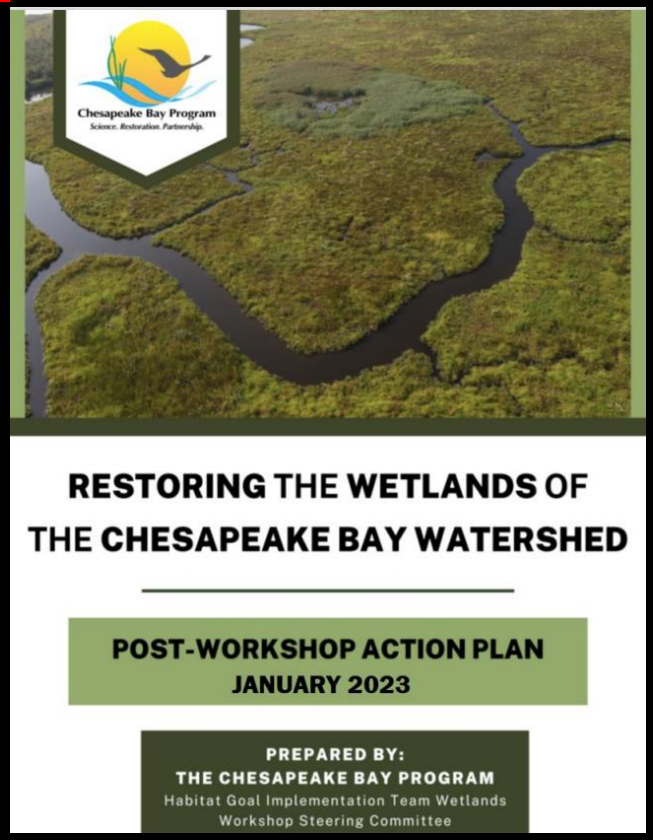
Current Tasks, Groups, and Actions

- EPA CBP Wetlands Strategic Plan
- Beyond 2025 (Phase I and Phase II)
- Habitat GIT (Tidal WWG + Nontidal WWG)
- Chesapeake Bay Trust EPA Grant

Recommendations for Wetlands Outcome

The CBP reported on the status of the 31 outcomes in the Agreement in 2021 and provided recommendations for the Wetlands Outcome:

- Strategic Planning for Tidal Wetlands
- Developing Capacity
- Landowner Community Engagement
- Sustainable Programs / Innovative Financing
- Tidal Wetlands Design (for restoration)



Chesapeake Bay Trust is engaged in these five Objectives for Chesapeake Bay tidal wetlands through the U.S. Environmental Protection Agency's Chesapeake Bay Program Office (EPA's CBPO) Tidal Wetlands Capacity Building Grant

Trust Objectives Under Grant
(yellow = moving forward now)

1. Strategic Planning for Tidal Wetlands
2. Developing Capacity
3. Landowner Community Engagement (Future)
4. Sustainable Programs/Innovative Financing (Future)
5. Tidal Wetlands Design (for restoration)

Objectives of Wetlands Capacity Building Grant

(1) Strategic Planning: facilitate dialog across practitioners and communities to establish consistent coastal marsh restoration priorities, techniques, and coastal marsh restoration siting criteria by creating a Wetlands Strategic Plan.

(2) Developing Capacity: determine aspects of coastal wetlands that can/should be monitored/evaluated on all projects, a protocol for monitoring to answer the question "Was this project successful," and a protocol for monitoring.

(3) Landowner Community Engagement: determine the best ways in which landowners and those who influence landowners get information. Audience types will be supported with this work: (a) Private individual landowners of all socio-economic levels, and (b) Coastal communities who will be disproportionately affected by sea level rise.

(4) Sustainable Programs: ensuring ongoing financial support for all of our practices is a challenge, and tidal/coastal wetlands is no exception.

(5) Tidal Wetlands Design - work with the National Oceanic and Atmospheric Administration (NOAA) and other partners to design a tidal wetland restoration project

Objective #1

Tidal Wetland Strategic Plan

- ☑ Write a QAPP and QMP
- ☑ Create a Project Steering Committee (PSC)
- ☑ Review & compile existing information (rank & prioritize)
  - Documents, models, tools, projects, relevant workshop outcomes
  - Create shared space for regular additions/updates
- ☑ Contract a technical expert for strategic planning guidance
- ☑ Develop Draft Strategic Plan: vision/mission/goals/objectives/strategies.
  - Break into Small Groups to develop sub-goals, strategies, and key actions
  - Draft Report and request input / update plan
  - Obtain stakeholder approval
  - Incorporate wetland terminology
  - Finalize Report to inform wetland protection and restoration efforts

Objective #1

Project Steering Committee

- Meet Monthly with PSC for focused discussions (=schedule HW).
- Pull in experts in the field across the watershed that commit to support this effort
- Current count: 48 members representing Bay jurisdictions w/ tidal wetlands = DE, DC, MD, VA
- Create shared space for document sharing
- We are open and inclusive – reach out if you are interested!

https://drive.google.com/drive/folders/1fPkuyq0KsO5U7lPp-2J_0vqL3syQwiBA

Objective #1

Compilation of Tools Process

Tools (or models) Proposed for Integration in the plan

>50 tools in this spreadsheet characterized by Priority

Focus on the 32 tools denoted as Priority 1 and Priority 2

All tools have a summary and link

https://drive.google.com/drive/folders/1fPkuyq0KsO5U7lPp-2J_0vqL3syQwiBA

ID#	P	Tool Name	Jurisdic	Tool Function/Purpose	Function
T-7	0	Shoreline Management Model – SMM		*Remove due to Overlap*	
T-20	1	Sea-Level Affecting Marshes Model (SLAMM)	WSW	1. Broad-Scale	1
T-33	1	Marsh Adaptation Project's Mapper (Julie Reichert-Nguyen/John	WSW	3. Fine-Scale	1
T-34	1	TNC Marsh Management Decision Support Tool (Michellle Canick)	WSW	1. Broad-Scale	1
T-41	1	Coastal Ecosystem Services for Mid-Atlantic States	WSW	2. Tool to assess wetland	2
T-51	1	EPA EJ screen	WSW	2. Tool to assess wetland	2
T-54	1	Tidal Marsh Model	WSW	3. Fine-Scale	3
T-16	1	Black Duck Decision Support Tool (DST)	WSW	2. Tool to assess wetland	2
T-21	1	Wetland Assessment Tool for Condition & Health (WATCH)	WSW	3. Fine-Scale	3
T-50	1	Delmarva Restoratio		Scale	2
T-12	2	Outcome Tracker of		assess wetland	2
T-13	2	NOAA Environmenta		Scale	1
T-14	2	Saltmarsh Sparrow H		assess wetland	2
T-15	2	Black Rail Potential H		assess wetland	2
T-19	2	Chesapeake Bay Hab		assess wetland	2
T-22	2	Relative Wetlands Vu		assess wetland	2
T-23	2	EPA's Adaptation Des		Scale	1
T-35	2	USGS Coastal Change		assess wetland	2
T-4	2	Chesapeake Bay 1-meter Land Use/Cover Classification	WSW	1. Broad-Scale	1
T-42	2	@Bruce	WSW	2. Tool to assess wetland	2
T-45	2	Marsh Equilibrium Model - Jim Morrisons Lab in S. Carolina -	WSW	3. Fine-Scale	3
T-18	3	Structured Decision Making (SDM)	WSW	N/A - not a tool	
T-24	3	Watershed Resources Registry (WRR)	WSW	1. Broad-Scale	1
T-25	3	Chesapeake Assessment Scenario Tool (CAST)	WSW	1. Broad-Scale	1
T-26	3	*FUTURE - High-Resolution Land Use/Land Cover Data Project and*		*FUTURE TOOL*	

Objective #1

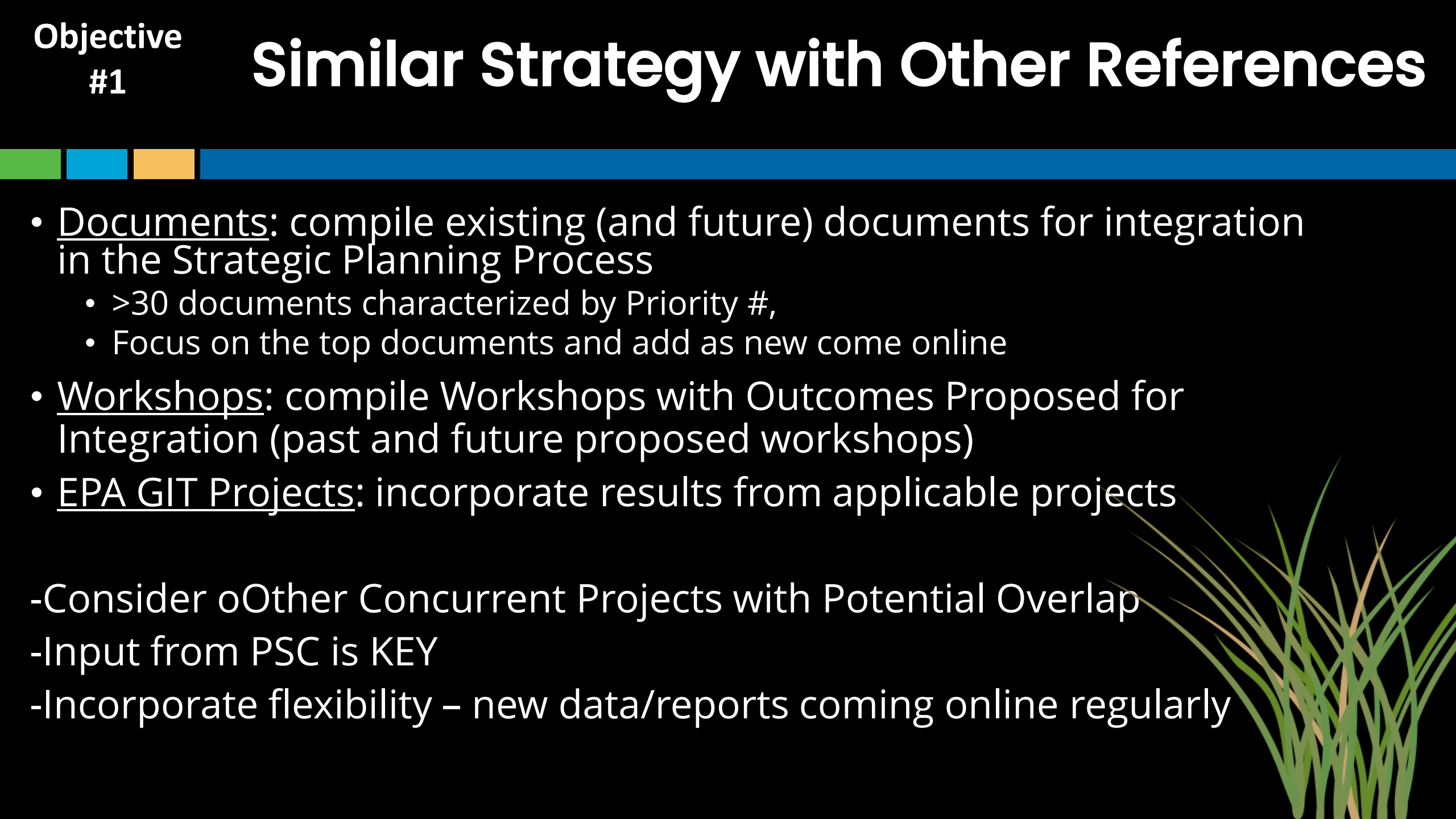
Similar Strategy with Other References

- Documents: compile existing (and future) documents for integration in the Strategic Planning Process
  - >30 documents characterized by Priority #,
  - Focus on the top documents and add as new come online
- Workshops: compile Workshops with Outcomes Proposed for Integration (past and future proposed workshops)
- EPA GIT Projects: incorporate results from applicable projects

-Consider oOther Concurrent Projects with Potential Overlap

-Input from PSC is KEY

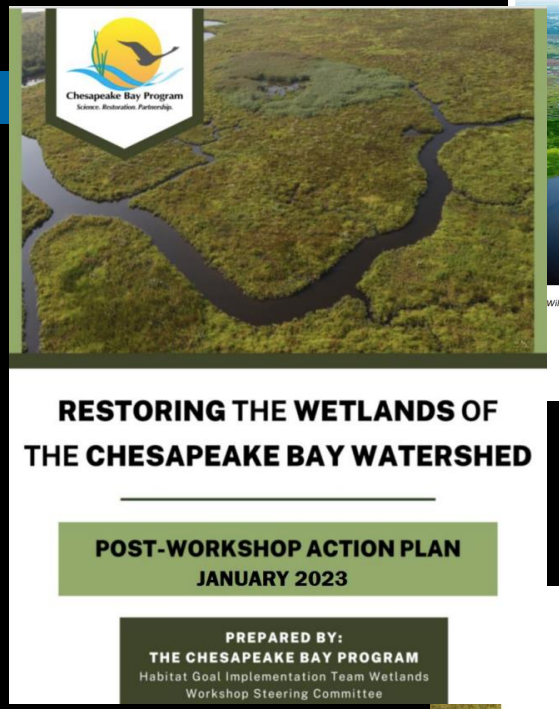
-Incorporate flexibility – new data/reports coming online regularly

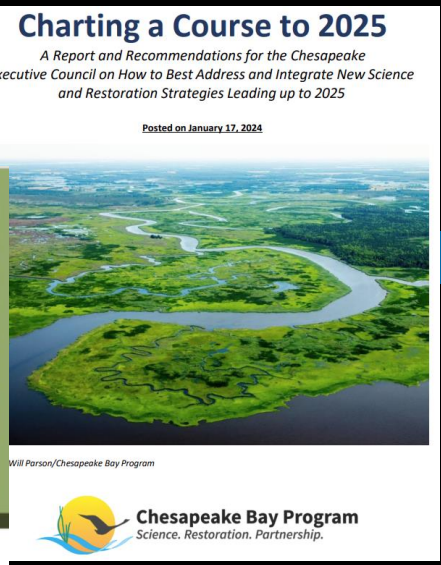


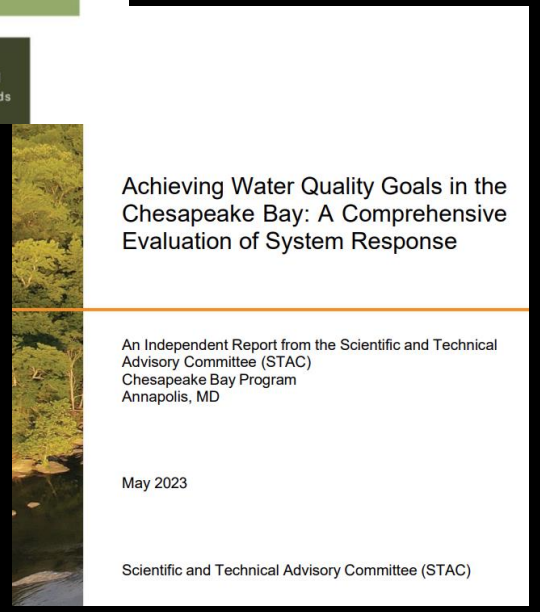
Objective #1

KEY Guidance Documents

1 - Wetlands Action Plan: Restoring the Wetlands of the Chesapeake Bay Watershed
https://d18lev1ok5leia.cloudfront.net/chesapeakebay/documents/2023.01.17-2023-Wetlands-Action-Plan_FINAL.pdf
2 - Charting a Course to 2025 A Report and Recommendations for the Chesapeake Executive Council
https://d18lev1ok5leia.cloudfront.net/chesapeakebay/documents/Charting-a-Course-to-2025-Report_FINAL_2024-01-18-171447_ikrj.pdf
3 - Achieving Water Quality Goals in the Chesapeake Bay: A Comprehensive Evaluation of System Response (CESR)
https://www.chesapeake.org/stac/cesr/
4 - Wetland Development/Program Plans (by jurisdiction)







Feel free to email additional primary documents

Objective #1

Contract an Expert

- Use a consensus-based approach to facilitate discussions - this is a stakeholder-driven process that ***creates buy-in and generates successful outcomes***
- Trust and PSC provide guidance/background/context/goals
- **Start with a situation assessment informed by deep listening**
- Gather Input from Stakeholders
  - One-on-one conversations about topics of concern to a group to discern the "landscape"
  - Semi-structured interviews/listening sessions, asking key stakeholders open-ended questions developed by PSC.
  - Focus on fundamental questions needed to frame the strategic plan
  - Individuals asked a series of questions previously identified/screened by PSC
  - Results inform next steps!

Objective #1

Decision Framework and Strategic Plan

- Draft Outline and Decision Framework from Situational Assessment
  - Synthesize Results into overall themes
  - Characterizes where consensus of approaches and gaps exist for the plan
  - Develop “strawman” strategic plan outline
  - Dig into identified resources and bundle them according to where they might be most helpful in decision-making
  - Have PSC and partners review = Sea Grant MARYLAND
- Draft a Strategic Plan Report from framework:
  - Vision, mission, goals, objectives, and strategies

Objective #1

Draft Strategic Plan Development

- Use Monthly PSC Meetings for Plan Development
- Develop Vision Statement
- Define Important Topics from Framework:

Topic 1: Restoration of Large-Scale Tidal Marshes

Topic 2: Restoration of Living Shorelines

Topic 3: Protection/Conservation of Marshes, including Migration Corridors

Topic 4: Landowner Outreach and Engagement

Topic 5: Cross-Collaboration including Policy Alignment and Coordinated Research

Objective #1

Small Group Charge & Topics

Purpose: Project Steering Committee Members will **move forward the Topics** Proposed in the Draft Framework by collaborating as SMALL GROUPS (Framework Developed from ERG Listening Sessions)

Goals: Each small group meets individually to ***further refine proposed topics for inclusion in the Tidal Strategic Plan***

Charge: Work as a Team to define the Goals and Key Actions of your Small Group Topic. Each group will present to the full Project Steering Committee for input and refinement

Membership: Facilitator, Leader/Spokesperson, Contributing Members

Meetings: Schedule HW and meet with Group

Topic 1: Restoration of Large-Scale Tidal Marshes

Topic 2: Restoration of Living Shorelines

Topic 3: Protection/Conservation of Marshes (+Migration Corridors)

Topic 4: Landowner Outreach and Engagement

Topic 5: Cross-Collaboration (+Policy Alignment/Research)

Goals	Clearly defined, actionable, and measurable conditions achieved through meeting objectives. Broad enough to capture long-term aspirations but tailored to be achievable with the program's resources. • Near term • Long term
Objectives	Outcomes in the short term that contribute to achieving goals.
Strategies	Methods or actions applied to achieve stated goals and outcomes.
Key Actions	Specific activities that are assigned to teams, partners, and staff that occur across the timespan of the project. • Short term: 0-5 years • Medium term: 5-10 years • Long term: 10+ years

Objective #1

Next Steps for Tidal Strategic Plan

We need you!

- Draft Strategic Plan to be reviewed by Tidal Wetland Work Group (Fall 2024)
- Trust to respond to comments on draft and Finalize Strategic Plan
- Tidal WWG will “vote” to accept Tidal Strategic Plan and present to EPA CBP
- Finalize Report to inform wetland protection and restoration efforts

Objective #2

Developing Capacity

WHAT WE KNOW: Increased technical and administrative capacity is needed (at state agency and NGO level) to submit grants, manage projects, review and issue project permits, and conduct outreach; practitioners needed to implement projects

WHAT TO DO: Increasing the number of wetland restoration practitioners: States have difficulty hiring and retaining wetland restoration practitioners. There is a shortage of specialists in the states to conduct outreach, develop designs and implementation restoration actions. Developing standardized tidal wetland restoration techniques and monitoring will allow continuity within the jurisdictions and help maintain expertise through changing staff.

HOW TO SOLVE: determine aspects of coastal wetlands that can/should be monitored/evaluated on all projects, a protocol for monitoring to answer the question “Was this project successful,” and a protocol for monitoring.

Objective #2

Developing Capacity *[Potential Steps]*

Work in progress...

- Determine aspects of coastal wetlands that can/should be monitored/evaluated on all projects to answer: “Was this project successful?”
- Develop a manual of techniques for creating, restoring, and enhancing coastal wetlands (consider sea level rise and subsidence)
- Closely coordinate with the Tidal WWG (+ practitioners outside watershed)
- Develop a consistent Monitoring protocol to outlines key success metrices for coastal wetlands:
  - Focus on “pooled monitoring” to ensure coastal marshes will persist over time.
  - Incorporate a structured process to apply adaptive management
- Develop and design a pilot project

Objective #2

Developing Capacity

FRAMEWORK TO COMPLETE OBJECTIVE:

- Data Collection Phase
  - Existing Capacity?
  - Define the needs and gaps?
- Request Stakeholder input from PSC Members (completing now)
- Contract an expert to fill gaps
- Work with Tidal WWG & STAR

What actionable items can improve capacity to meet tidal wetland restoration goals?

CAPACITY ISSUES OBSERVED

Difficulty hiring adequate wetland restoration practitioners	retention of wetland professionals issues = loss of industry knowledge	Need more specialists to conduct outreach, develop and construct designs, and implement restoration actions	hard to accurately track loss and gains in wetlands
lack of capacity in grant writing and mgmt and post-construction monitoring	need to better communicate with restoration firms the necessary engineering qualifications to design a wetland restoration prpject	provide resources to develop a skill workforce for construction and maintenance	needs of each state and jurisdiction are not uniform- need alignment
need capacity on multiple levels (management and in the field)	VA specific- Dept. of Wildlife Resources is the state's only agency with a wetland program voluntarily working to restore and enhance tidal and non-tidal wetlands. Needs additional funding and staff to expand the work	VA specific- need to work with VA DEQ and other agencies to effectively gather and track voluntary wetland restoration and enhancement project data	Need to work with CBP to define activities that count towards the wetlands outcome and determine a standard way to measure and report wetland data hopefully in one standard report
Need more staff to maximize participation with partners/groups that are doing wetland restoration and enhancement work	need to increase training programs and outreach regarding history/ types of wetland impacts, strategies to identify impacted wetlands, and available wetland restoration and enhancement practices	need standard monitoring protocol	what determines a successfully constructed wetland? need a standard measurement of success
coastal engineers should be added to the Regulatory staff team	more frequent, relative, and substantive training is needed for all plan reviewers		

[Capacity Building (Objective 2) • EPA Wetlands Capacity Building (mural.co)]

Objective #3

Landowner Community Engagement

Work in progress...

FACT: Majority of the land in the watershed is privately owned

NEEDS: willing landowners for tidal restoration & streamlined communication

AUDIENCE FOCUS:

- Private individual landowners (all socio-economic levels)
- Coastal communities that will be disproportionately affected by sea level rise

HOW TO SOLVE:

- Increase education and outreach to landowners and local communities (what wetlands are and their functions, services, benefits, and value)
- Develop action network of local community organizations and community

What resources should we consider?
What experts should we be talking with?
What congtractors should we consider hiring?

Objective #4

Sustainable Programs

Work in progress...

FACT: ongoing financial support for tidal wetland practices is a challenge and will be neeed to meeting EPA CBP Wetland Goals

NEEDS: ensure work identited in the Tidal Strategic Plan can be implemented beyond the scope of currently available funds

HOW TO SOLVE: identify innovative financing practices that can generate funds to build sustainable programs and maintain capacity:

- Review opportunities with State Revolving Loan Funds (SRLFs)
- Identify new market opportunities
- Explore the value of blue carbon
- Develop a financing plan for coastal wetlands

What resources should we consider?
What experts should we be talking with?
What congtractors should we consider hiring?

Objective #5

Tidal Design

The Nature Conservancy

Biohabitats

Purpose & Goals:

- Provide funding to plan and design a tidal wetland restoration project
- Location is a high priority site
- Identified project is supported by key stakeholders and project partners
- Completed design will be a catalyst for attracting implementation dollars
- Pocomoke Sound Climate Adaption Initiative Project (MD+VA)
- Subawarded TNC
- Requested NOAA Funds-implementation

Questions & JamBoard Activity!

EPA Wetlands Capacity Building Grant - Google Jamboard