

Atlantic States Marine Fisheries Commission

Atlantic Coastal Fish Habitat Partnership Steering Committee

Draft Agenda

Monday, October 21, 2024 (10:00 a.m. – 5:00 p.m.)

Tuesday, October 22, 2024 (9:30 a.m. – 5:00 p.m.)

Webinar Link: <https://v.ringcentral.com/join/462557844>

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary

Monday, October 21

1. Welcome and Introductions (*J. Coakley*) 10:00 a.m.
2. Committee Consent 10:15 a.m.
 - Approval of agenda & Spring 2024 meeting minutes
 - Quorum: Approval of NEFMC membership
3. Review of 2023-2024 Action Plan 10:30 a.m.
 - Discuss items for the next Action Plan (2025-2026)

Lunch Break

11:45 a.m.

4. Reconvene 1:00 p.m.
5. Project Updates (*S. Kaalstad*) 1:15 p.m.
 - Recently completed & active on-the-ground restoration projects
 - FY25 proposed/approved projects
6. Outreach & Communications 2:00 p.m.
 - Partner updates
 - Engaging tribal organizations and underserved communities
 - Collaborative opportunities with [Urban Waters Federal Partnership](#) (EPA/USGS)
7. FY26 ACFHP Project Funding (*S. Kaalstad*) 3:00 p.m.
 - RFP development
 - NFHP requirements, ACE Act alignment
 - Timelines
 - Review of [FY26 Online Application Form](#)
8. Wrap-Up & Overview 4:30 p.m.
9. Adjourn/Will Reconvene on October 22 5:00 p.m.
10. Welcome Reception & Melissa Laser Award 2024 Presentation (*CBF*) 6:00 p.m.

The meeting will be held at The Westin Annapolis (100 Westgate Circle, Annapolis, Maryland; 888.627.8994) and via webinar; click [here](#) for details

Tuesday, October 22

1. Reconvene 9:30 a.m.
2. Updates to State Wildlife Action Plans (*W. Duncan*) 10:00 a.m.
3. National Fish Habitat Partnership (NFHP) Updates (*A. McOwen, J. Olive*) 10:30 a.m.
 - Board activities & meetings
 - National habitat assessment
 - Stakeholder engagement
- Lunch Break** 11:45 a.m.
4. Reconvene 1:00 p.m.
5. NFHP Projects & Accomplishment Map (*D. Wiefelich*) 1:30 p.m.
 - Click [here](#) to access the map in ArcGIS
6. Science & Data: Submerged Aquatic Vegetation (*E. Schneider, M. Bachman*) 2:30 p.m.
 - Overview: SAV Webinar with EPA, VIMS, and East Coast SAV Collaborative
 - Discussion: restructuring Science & Data Working Group
 - Product Development: timelines and funding opportunities
7. Wrap-up, Overview, Next Steps 4:30 p.m.
8. Adjourn 5:00 p.m.
9. Annual Dinner: Naval Academy 6:00 p.m.

Meeting Summary - ACFHP Spring Meeting 2024 – Virginia Beach, VA

[Meeting Agenda](#)

Day 1, Monday, May 20, 2024 – The Atlantic Coast Fish Habitat Partnership (ACFHP) held a three-day meeting from May 20 to May 22, 2024 at the Chesapeake Bay Foundation's Brock Environmental Center. The meeting commenced on Monday afternoon with a welcome and introductions led by vice-chair Jessica Coakley (Mid-Atlantic Fishery Management Council), followed by the approval of the agenda and the Fall 2023 meeting minutes which was held in Beaufort, NC. Simen Kaalstad, ACFHP Director, provided updates on ACFHP projects, including FY24 approved projects, the FY25 work plan and accomplishment report, and NOAA's request for proposals pertaining to Increasing Recreational Fisheries Engagement through FHPs. Guest speakers Karen Forget and Michelle Bachman presented on Lynnhaven River Now and NEFMC as a new ACFHP partner, respectively. The day concluded with a wrap-up and an overview of the next day's agenda.

Day 2, Tuesday, May 21, 2024 – The meeting reconvened with a restoration site visit organized by the Chesapeake Bay Foundation. The field trip around the confluence of the James and Elizabeth Rivers at the southern end of the Chesapeake Bay was followed by lunch, after which Jeff Beal (Ducks Unlimited) updated attendees on the aquatic connectivity teams' efforts led by the Southeast Aquatic Resources Partnership (SARP), another fish habitat partnership (FHP). The USFWS led a discussion on tribal engagement, which was followed by a comprehensive review of the ACFHP action plan, including a discussion of accomplishments to date and assigning action items to working groups and subcommittees. The day ended with a wrap-up and an overview of the final day's agenda.

Day 3, Wednesday, May 22, 2024 – The final day opened with presentations on SAV mapping and monitoring by Jimmy Johnson (Albemarle-Pamlico National Estuarine Partnership) and Eric Schneider (RI Dept. of Environmental Management), followed by updates on NFHP activities from Jason Olive (USFWS/NFHP) and Alex McOwen (NOAA/NFHP), covering habitat assessment, funding, and the ACE Act. Guest speaker Sophia Hoffman discussed SAV research at the VA Coast Reserve LTER site. Jessica Coakley provided an update on ACFHP leadership, including nominations and the formal voting process for a new chair and vice chair. After lunch, participants engaged in breakout discussion sessions focused on subcommittees and working groups, updating outreach materials, and developing ACFHP Science & Data products. The meeting concluded with a final wrap-up, overview, and outlining of next steps before adjourning. For detailed minutes or specific discussions, refer to the official meeting minutes or contact the ACFHP Director, Simen Kaalstad (skaalstad@asmfc.org).

Key Points:

- **ACFHP Chair:** Jessica Coakley
- **ACFHP Vice-Chair:** Chris Moore
- Partner Refresh Working Group (new):
 - (Members): Wilson Laney, Mari Beth DeLucia, Marek Topolski, Alex Vidal
 - Explore the list of tribal contacts provided by Tim Binzen (USFWS).

- Identify and engage new organizations working with underserved and tribal communities.
- Re-engage those groups they are already working with; provide detailed survey asking what their needs are and which ACFHP products may be useful to them.
- Consider updating MOU with participation requirements for partners.
- Modify ACFHP's annual RFP:
 - Specify funding amounts and emphasize that larger requests are accepted.
 - Include the SARP Fish Passage Barrier Prioritization Tool (*Kat Hoenke*).
 - Include requirement for project partners to link the ACFHP website on their project websites.
 - Higher score for working with, or being, a tribal organization.
- Outreach and Communication Updates:
 - Re-engage ACFHP comms. committee; draft a comprehensive outreach and communications plan; identify priority outreach materials to be translated for non-English audiences.
 - USGS Urban Watersheds Initiative Webinar; ACFHP hosts a one-time webinar or ask John Young to provide update at next meeting.
 - Consider hosting an SAV Best Practices / Lesson's Learned Webinar.
- Science and Data Updates:
 - **Chair:** Eric Schneider (RI DEM)
 - **Vice-Chair:** Michelle Bachman (NEFMC)
 - Update S&D Committee as part of "Partner Refresh"
 - Request follow-up monitoring & assessment reports from previously funded ACFHP projects.
 - Develop survey to identify priority needs and the most useful product types for our partners.
 - Potential topics:
 - SAV – Eelgrass seeding issues and intersections with oyster aquaculture
 - Species Movement – Cross reference tracking data with previously funded restoration projects
 - Species-Habitat Matrix 2.0 – Expand and/or combine with MAFMC Database; Identify 1 or 2 Atlantic diadromous species and work backwards to the habitat and life-stage level.

New England Fishery Management Council Application:
Criteria for Atlantic Coastal Fish Habitat Partnership
Memorandum of Understanding Signatories

(1) In what region(s) or watershed(s) does your organization work? Please describe.

The New England Fishery Management Council (Council) develops fishery management plans, including essential fish habitat designations and conservation measures, for the waters off ME, NH, MA, RI, and CT. Additionally, some of the resources we manage occur off NY, NJ, DE, MD, VA, and NC. The geographic focus of our measures to minimize the impacts of fishing on fish habitats is for federal waters (three to two-hundred nautical miles from shore) off the New England states, but we designate Essential Fish Habitat (EFH) and promote conservation of such habitats in both federal and state waters. Given the species we manage, our focus is on estuarine and marine environments, with less emphasis on riverine habitats.

(2) Why do you want to be an ACFHP Partner (or how do you perceive that ACFHP will benefit you?)

Species managed by the Council depend on coastal, estuarine, and, to a lesser extent, riverine habitats. We are interested in sharing our expertise on these species, and promoting the conservation of the habitats on which they depend, to benefit fisheries, as well as the broader ecosystem. While we do not fund or participate in habitat restoration work, we recognize that such work is an essential complement to the work that we do, as Council activities (minimizing effects of federal waters fishing and promoting avoidance and minimization of impacts from non-fishing activities) are a focused component within a larger context. We believe we can learn more about regional fish habitat conservation approaches and projects from Atlantic Coastal Fish Habitat Partnership (ACFHP) and share approaches for how the Council can support and promote that work.

(3) Do the goals or objectives of your organization align with those of the Atlantic Coastal Fish Habitat Partnership, and can you assist in implementing them? Please describe and provide your organization's guiding document(s) (e.g., Strategic Plan, Conservation Plan, etc.).

To familiarize yourself with the objectives of the Partnership, please see p.18 – 21 of the [Atlantic Coastal Fish Habitat Partnership Conservation Strategic Plan \(2022 – 2026\)](#). For Subregional Priority Habitats, see p.12.

Information about the Council is available at <https://www.nefmc.org/>. Information about Council operations and policies is provided in our [Operations Handbook](#). The Council's Habitat Policy (p. 44 of the Operations Handbook) is aligned with the objectives of ACFHP. The Council's membership includes 18 fishery managers with deep expertise and connections in New England and beyond, and we have a standing Habitat Committee (<https://www.nefmc.org/management-plans/habitat>) to identify and address habitat conservation concerns. Council staff expertise includes the following, which can be used to further ACFHP's objectives:

- Habitat requirements for Council-managed species,
- Fishing effort distribution, by gear type, including federal and state waters fisheries,
- Regional seabed data and habitat mapping approaches,
- Impacts of non-fishing activities on habitats, with particular emphasis on offshore wind projects, including preparing correspondence,
- Convening a stakeholder-driven and participatory management process,
- Convening and chairing meetings and technical processes,
- Preparing, reviewing, revising public-facing decision support materials,
- Reviewing proposals for applied research intended to benefit fisheries and fishery management, and
- Communicating with diverse fishery management stakeholders and partners.

(4) Please describe how you will meet the commitments of the MOU parties, which are as follows:

The partners to this MOU, to the extent practicable, hereby affirm their mutual understanding and agree to use their best effort to take the following steps:

- 1. To carry out their mutual intent to design and implement an ACFHP plan that will address on-the-ground coastal, estuarine-dependent, and diadromous fish habitat resource needs throughout the Atlantic states.*
- 2. To work together to facilitate current and future mutually agreed upon joint coastal, estuarine-dependent, and diadromous fish habitat resource activities for the benefit of Atlantic fish habitat resources.*

The New England Council will contribute its expertise to the identification and promotion of fish habitat conservation actions, including updates to the ACFHP plan. This work is well aligned with the Council's fishery management objectives. The Council is best suited to support ACFHP's 'Science and Data' and 'Communication and Outreach' objectives and associated strategies.

- 3. To use the resources of their agencies and organizations in a manner consistent with their mission and the mission of ACFHP, that avoids duplication and that mutually supports the efforts of other parties involved.*

The New England Council will continue the work of its own habitat program, being mindful of the efforts of ACFHP and its partner organizations and building on ACFHP and member initiatives where possible. The Council members and staff participate in several interagency and multi-organization initiatives and can contribute our knowledge of regional conservation programs and scientific efforts towards ACFHP's work.

- 4. To collectively pursue funding initiatives to support the ACFHP through private, corporate, state, and federal government, and any other means that may be available.*
- 5. To collectively pursue interagency/organization agreements, cooperative agreements, grants, and/or contracts to fund approved projects.*

The New England Council will support the identification of conservation objectives and the preparation of proposals as needed and as our expertise allows. The Council will share information about potential funding sources and opportunities with ACFHP staff and leadership. Council staff are available to provide in-kind contributions through membership on project steering committees or proposal review panels, where our expertise is relevant to the subject matter.

- 6. To encourage and support the participation of other appropriate agencies and organizations by mutual agreement of the partners.*

The New England Council will contribute its expertise to ACFHP and promote awareness of ACFHP amongst its members and partner organizations through communication such as our website, email lists, and public meetings.

To be a signatory to the Atlantic Coastal Fish Habitat Partnership Memorandum of Understanding, an organization must:

- Work within a watershed that falls within the Partnership boundary**
- Meet at least one Partnership goal or objective**
- Meet ALL of the Commitments of the Parties**

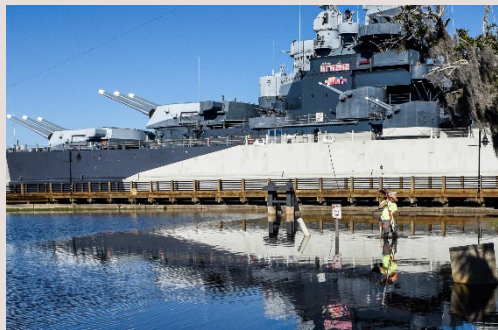
***Disclaimer:** Being an ACFHP MOU partner does not preclude ACFHP from challenging an action of that partner or taking legal action against them.*



ACFHP PROJECT UPDATES

October 21, 2024

Battleship North Carolina: *Living with Water*



Cape Fear River, Wilmington, NC

(FY21) Delayed due to COVID-19

Expected Completion: **early 2025**

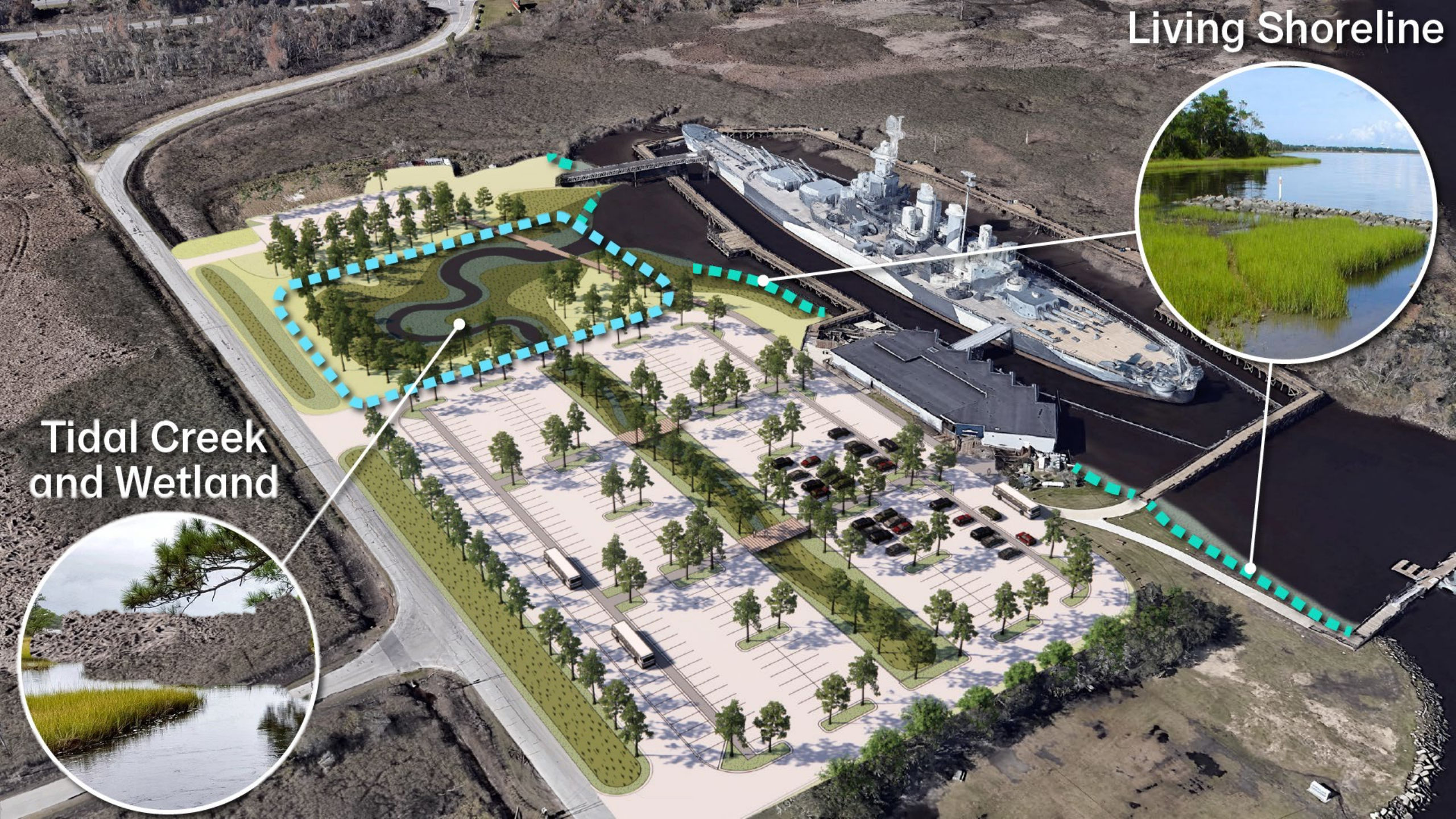
Led by USS North Carolina Battleship Commission

Restores ~800 ft. of intertidal shoreline & ~2 acres of tidal wetland to mitigate nuisance tidal flooding.

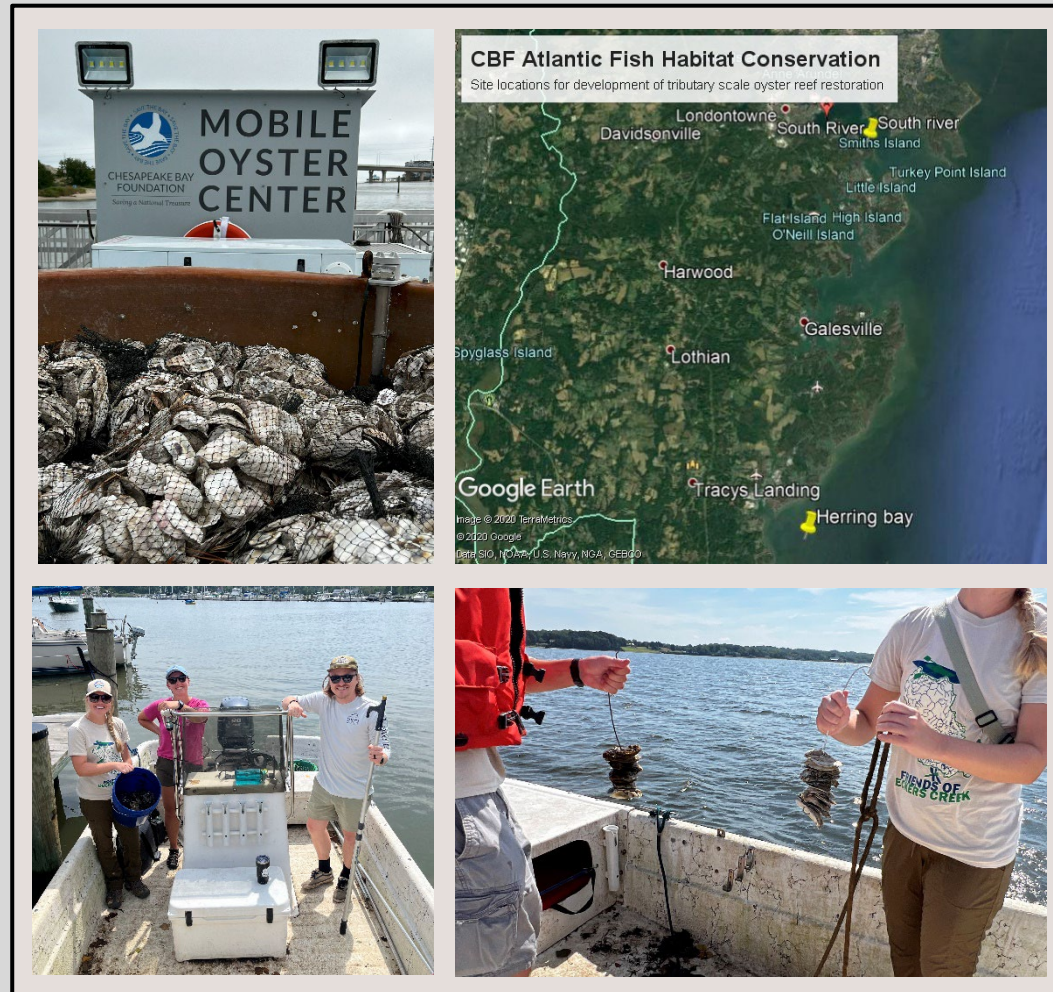


Living Shoreline

Tidal Creek
and Wetland



South River Tributary-Scale Oyster Reef Restoration



South River & Herring Bay, Annapolis, MD

(FY22) Monitoring nearly complete.
Awaiting final reports

Led by Chesapeake Bay Foundation

Restores, augments, and expands
existing oyster reef sanctuaries
1.5 → 5 acres.

Annual NFHP Funding Cycle

Project Status:



| <u>Project Name</u> | <u>FY Funded</u> | <u>Status (MM/YY)</u> | <u>Notes about status¹</u> | <u>NCP</u> |
|---|------------------|-----------------------|--|--|
| Lower E.R. Collins Dam (NJ #24-28) Removal on the Pequest River, NJ The Nature Conservancy | 2023 | Active | Engineering and design completed 06/2023; Regulatory comment process ongoing (01/2024 - 07/2024); Demolition of dam expected Summer 2025 | 2. conserve hydrologic conditions 3. conserve physical and living habitats 4. reconnect fragmented fish habitats 5. conserve water quality for fish |
| Paulina Dam (NJ #21-2) Removal on the Paulins Kill, NJ The Nature Conservancy | 2023 | Complete (ish) | Construction finished for the season; barrier removed Construction crew will reenter the stream next year to implement Adaptive Management Plan (i.e., grade banks). Photos requested. | 2. conserve hydrologic conditions 3. conserve physical and living habitats 4. reconnect fragmented fish habitats 5. conserve water quality for fish |
| Salt Marsh Restoration & Donor Marsh, Wards Creek, North River Wetlands Preserve, NC NCCF | 2023 | Active | Contract started 01/2024; Preliminary designs completed 03/2024; Permit application on-going | 4. reconnect fragmented fish habitats 5. conserve water quality for fish |
| FHP Operations | 2023 | Active | | 6. Support structure and function of FHPs |

FY2023
Project Status:
Active

#1: Maryland Coastal Bays Salt Marsh Restoration Project - Phase I -
Worcester County, MD

Objective: Restore **114** acres of heavily degraded salt marshes in
Maryland Coastal Bays

Funds Requested: **\$100,000**



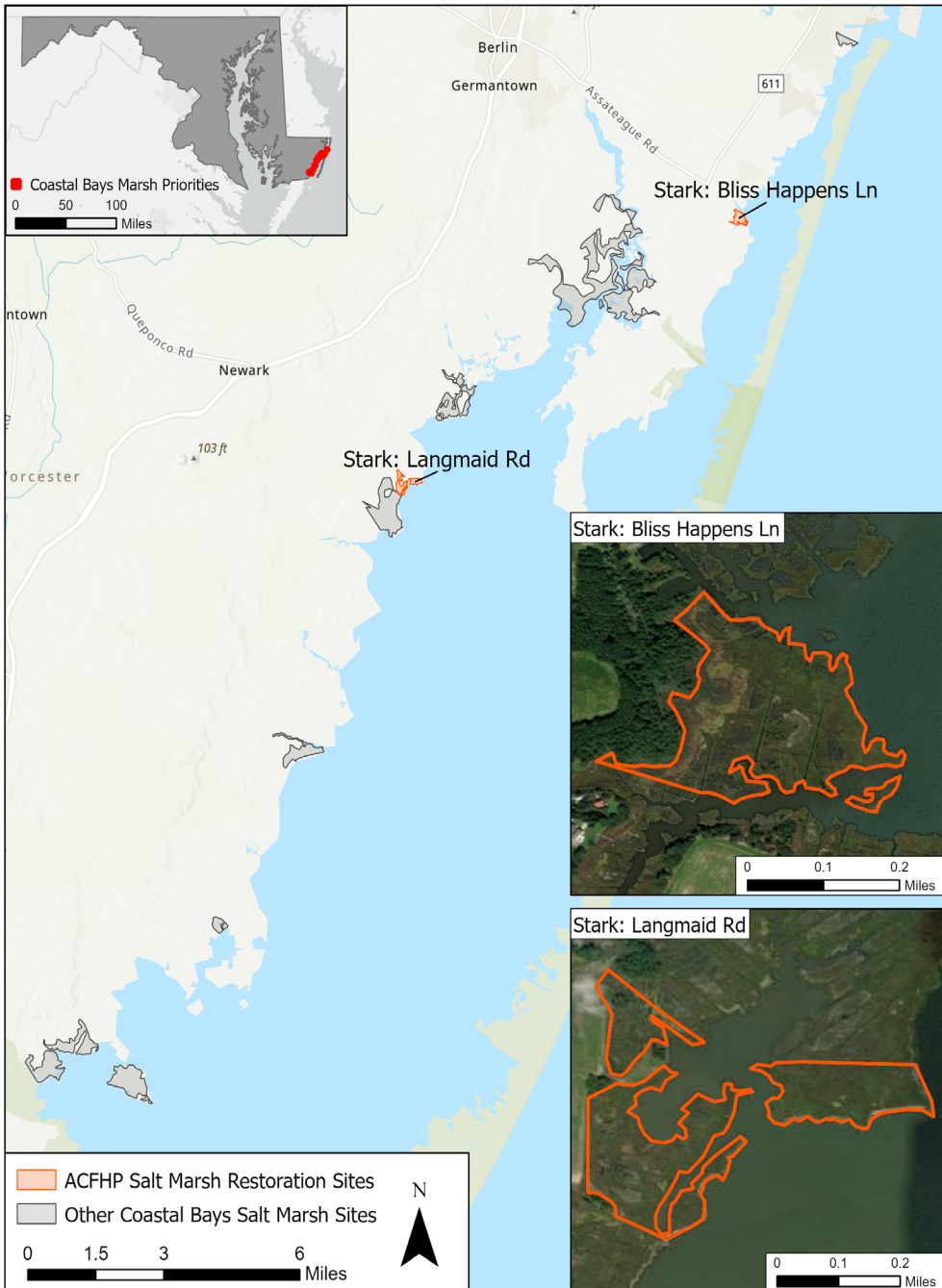
#2: Upper E.R. Collins Dam (NJ Dam #24-29) Removal on the
Pequest River - *Warren County, NJ*

Objective: Open 3 miles of riverine habitat to enhance fish
migration and mitigate local flooding in Belvidere, NJ

Funds Requested: **\$50,000**

FY2024

Project Status: Active



Original Scope:

Restore 39 acres across two private properties using four techniques:

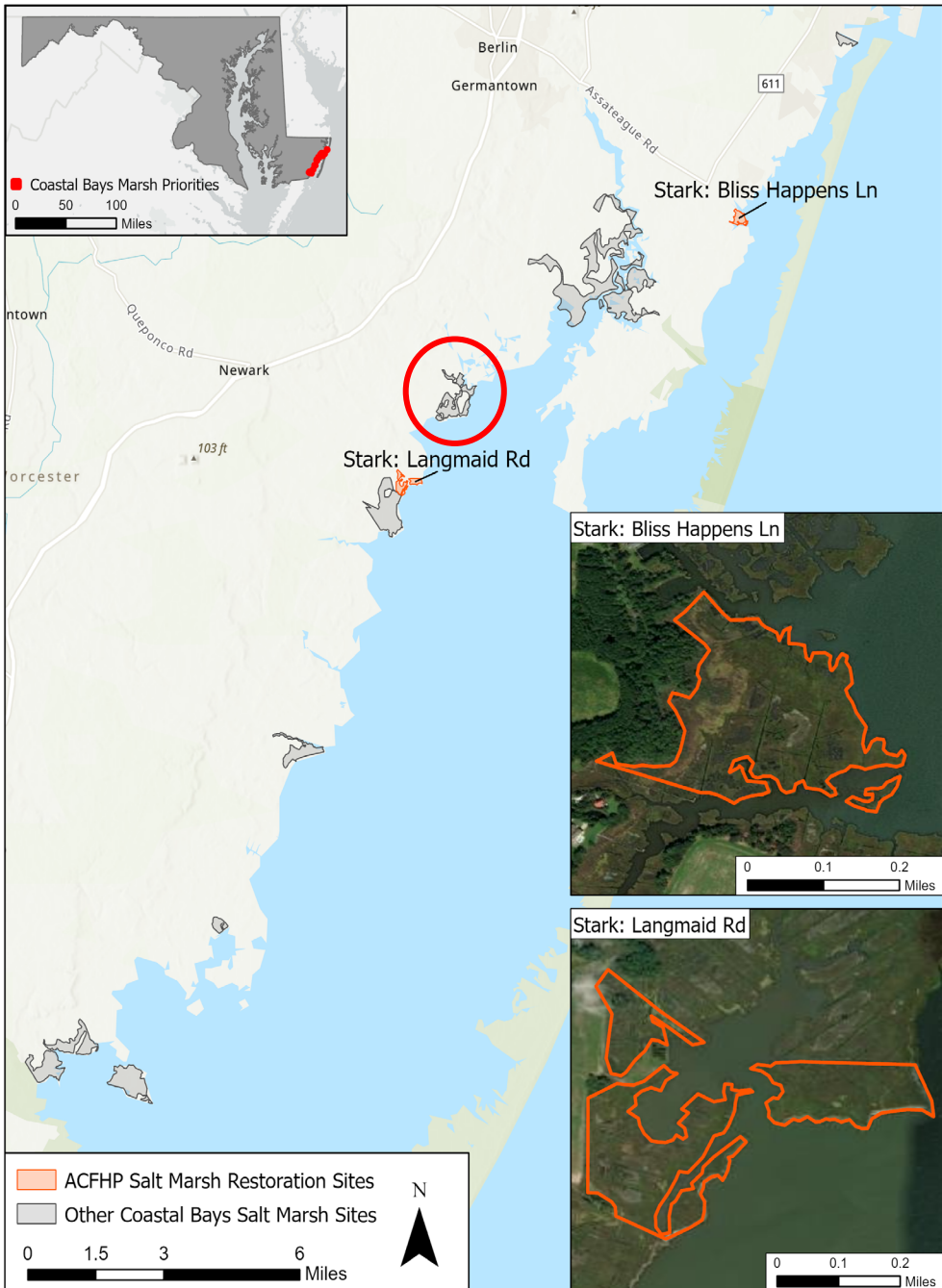
1. Sediment addition for marsh nourishment
2. Filling man-made ditches
3. Creating meandering drainage channels
4. Planting marsh grasses for revegetation

Impact:

Improve fish habitat, water quality, and coastal resiliency

FY2024

#1: MD Coastal Bays
Salt Marsh Restoration



Updated Scope:

Restore 114 acres across two private properties using four techniques:

1. Sediment addition for marsh nourishment
2. Filling man-made ditches
3. Creating meandering drainage channels
4. Planting marsh grasses for revegetation

Impact:

Improve fish habitat, water quality, and coastal resiliency

FY2024

#1: MD Coastal Bays
Salt Marsh Restoration



Upper E.R. Collins Dam (credit: TNC)



Lower E.R. Collins Dam - funded in FY23

Scope:

Reconnect 3 miles of riverine habitat on the Pequest River

1. Pequest River = NOAA "high priority" for fish passage restoration (northeast region)
2. E.R. Collins Dams are 2 of 4 dams slated for removal
3. American shad, blueback herring, alewife, American eel, and native sea lamprey

Impact:

Enhance fish migration, habitat, and mitigate local flooding

FY2024

#2: Upper E.R. Collins
Dam (NJ Dam #24-29)
Removal on the
Pequest River



#1: "No Name" Dam (#24-31) Removal Restoration
Construction, Pequest River, White Township, NJ

Funds Requested - **\$130,092.87**

#2: "Cedar Grove" Dam (#24-32) Removal Restoration
Construction, Pequest River, White Township, NJ

Funds Requested: **\$89,542.09**

Scope: Builds upon previous restoration impact of Lower (FY23) and Upper (FY24) E.R. Collins Dam removals. Continued collaboration between TNC, NJDEP, USFWS, private landowners, and Statewide Dam Removal Partnership

Impact: Removal of No Name and Cedar Grove Dams upstream will open additional 57.8 miles on the main stem Pequest River (7.8 miles) and its tributaries (50 miles)

FY2025

Project Status:

Approved
(NFHP Board)

#3: Oyster Reef Restoration for Increased Habitat and Ecosystem Services in the Matanzas River, St. Augustine, FL

Funds Requested - **\$90,000**



Scope: Installation of oyster arches (left) to construct 500 feet of oyster reef; mitigation of severe boat wake and tropical storm damage to shoreline vegetation.

Impact: Addresses erosion, restores oyster biomass + tidal vegetation, and enhances fish habitat and forage along Marineland, Florida shoreline.

FY2025

Project Status:

Approved
(NFHP Board)

Paulina Dam ACFHP (FY23)

7.6 miles

Construction is finished for the season and the barrier is now out of the Paulins Kill

Construction crew will reenter the stream next year to implement Adaptive Management Plan (i.e., grade banks). Photos requested.

Lower Collins Dam (FY23) and Upper Collins Dam (FY24) Engineering and Design

Designs are currently in review with partners

RFP for construction expected to go out in February

Construction to start Summer 2025

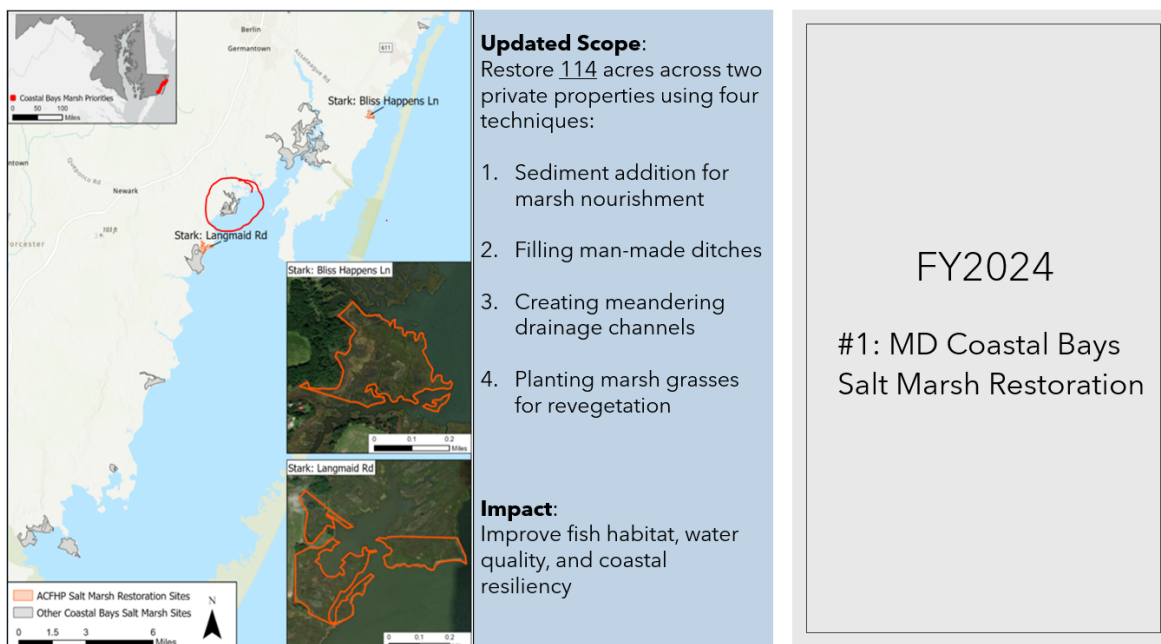
3 miles will be opened up by these removals but an additional 57.8 will be opened when the planned removals of No Name Dam and Cedar Grove Dam take place

Maryland Coastal Bays Salt Marsh Project (FY24)

These funds are set for implementation for the Croppers Island Marsh restoration project

This project will restore 114 acres of heavily impacted salt marsh

This year additional survey data was taken including elevation, vegetation, and nekton data



Chesapeake Bay Foundation South River Oyster Project (FY22)

Monitoring nearly complete

Awaiting final reports

Ames Pond (Braintree, MA)



Armstrong Dam (Braintree, MA)



Dana Dam (Wilton, CT)

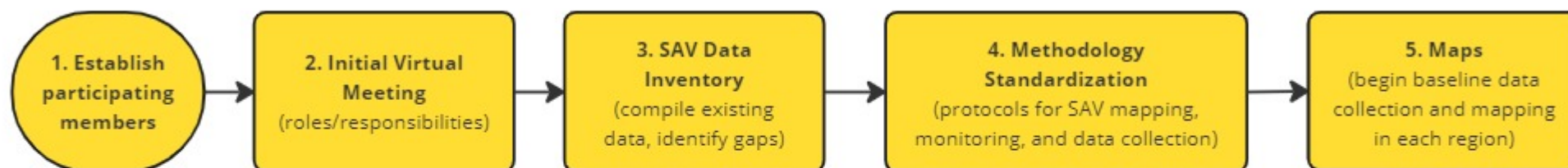


RF Fishway (Braintree, MA)



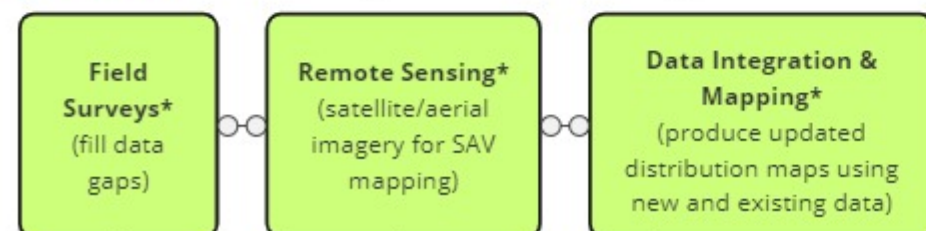
ACFHP Science & Data: SAV Assessment, Restoration, and Monitoring (SAV-ARM) Project

PHASE 1: Coordination and Planning

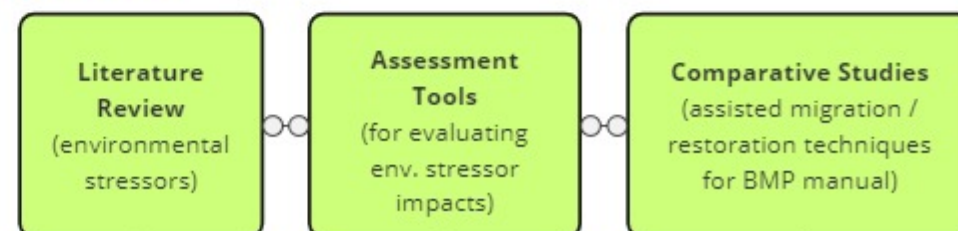


PHASE 2

OPTION A: Field Surveys & Remote Sensing



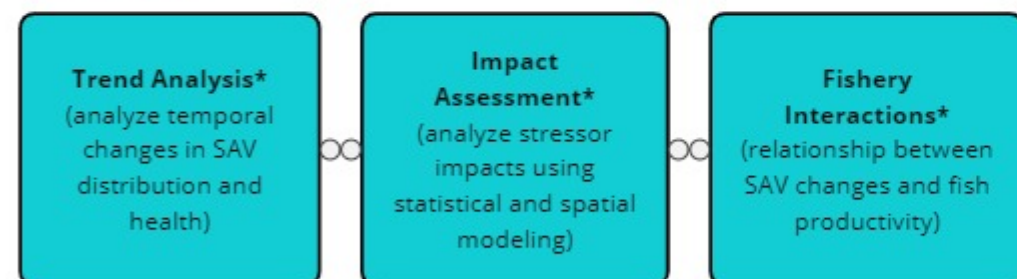
OPTION B: Impact Assessment & Comparative Studies



4. Centralized Portal / Database
(for SAV guidance documents, data, etc.)

PHASE 3

OPTION A: Data Analysis and Modeling



OPTION B: Long-term Monitoring Framework & Outreach



* if possible

PHASE 4: Product Development

OPTION A:

SAV Atlas*

interactive, online portal that includes:

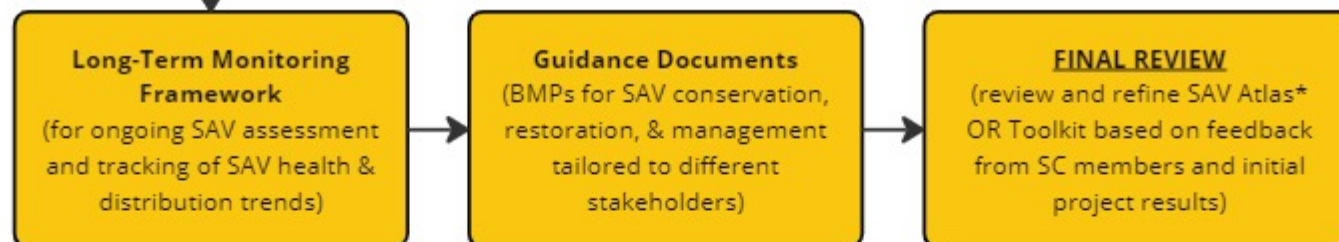
1. SAV Distribution Maps
2. SAV Trend Data
3. SAV Environmental Impact Assessments

OPTION B:

SAV Toolkit

guidelines for SAV conservation, restoration, and management tailored to different stakeholders that includes:

1. Current SAV Maps
2. Standardized Protocols
(mapping, monitoring, and data collection)
3. Assessment Tools/Guidelines
(for mitigating environmental stressors identified in the literature review/impact assessment)
4. Outreach and Educational Materials



PHASE 5: Dissemination and Training



* if possible

Science & Data Product Development Plan: "SAV Assessment, Restoration, and Monitoring (ARM) Toolkit"

Objective: To develop a standardized, user-friendly toolkit that provides state fishery and resource managers with the necessary tools and protocols for assessing, restoring, and monitoring SAV along the Atlantic coast. The purpose of this toolkit is to improve the consistency and effectiveness of SAV management and establish a robust foundation for decision-making in habitat conservation efforts.

Gaps in Scientific Information for SAV

Submerged Aquatic Vegetation (SAV) plays a critical role in coastal ecosystems, providing habitat, food, and nursery areas for many coastal and estuarine species, including commercially important fish. However, there are several gaps in the current scientific knowledge and data for SAV that hinder effective management and conservation efforts, including:

1. **Spatial Distribution and Coverage:** Inconsistent methods for data collection, mapping, and monitoring of SAV beds along the Atlantic coast.
2. **Environmental Stressors:** Insufficient information on the impacts of environmental stressors on SAV (e.g., pollution, climate change, coastal development, and invasive species) and the resilience/recovery mechanisms of SAV under different stressors.
3. **Restoration Techniques and Outcomes:** Need for improved methodologies and standardized success metrics for SAV restoration projects (i.e., a lack of comparative studies on the effectiveness of different restoration methods)
4. **Temporal Changes:** Inconsistent monitoring protocols leading to fragmented/limited long-term data and deficient understanding of trends and drivers of change for SAV abundance and health.
5. **Species-Specific Data:** Lack of detailed information on different SAV species and their specific ecological roles and responses to environmental changes.
6. **Fishery Interactions:** Limited understanding of how changes in SAV affect fish populations and fisheries (at various life-stages).

Timeline / Duration: *tbd (2 years?)*

YEAR 1: DATA COLLECTION AND MAPPING

Phase 1: Coordination and Planning

1. **Working Group Development:** Establish participating members of the S&D committee (ACFHP members, federal/state agency reps, NGOs, and/or academic institutions). Hold an initial virtual meeting to outline roles and responsibilities
2. **Data Inventory:** Compile existing SAV data from available databases (i.e., federal/state agencies, research institutions, and NGOs).
3. **Methodology Standardization:** Develop standardized protocols for SAV mapping, monitoring, and data collection.
4. **Current Maps:** Begin baseline data collection and mapping in each state.

Phase 2

Option A: Field Surveys and Remote Sensing (*if possible)

1. **Field Surveys*:** Conduct targeted field surveys, *if possible*, to fill gaps in existing data, focusing on high-priority areas identified during the planning phase.
2. **Remote Sensing*:** Utilize satellite imagery and aerial photography, *if possible*, to map SAV distribution along the Atlantic coast (or subset of ACFHP sub-regions).
3. **Data Integration:** Produce up-to-date maps of SAV distribution along the Atlantic coast using existing data, remote sensing data, and/or field survey data.

Option B: Environmental Stressor Impact Assessment and Comparative Studies

1. **Literature Review:** Conduct a comprehensive review of existing research on the impact of environmental stressors on SAV.
2. **Assessment Tools:** Develop standardized assessment tools for evaluating the impact of pollutants, climate change, and human activities on SAV health.
3. **Comparative Studies:** Compile and analyze existing restoration projects to identify the most effective techniques to create the best practices manual.

Then:

4. **Centralized Database:** Create a centralized database for SAV distribution data, accessible to all partners for data input and retrieval.

YEAR 2: ANALYSIS, PRODUCT DEVELOPMENT, AND DISSEMINATION

Phase 3

Option A: Data Analysis and Modeling

1. **Trend Analysis***: Analyze temporal changes in SAV distribution and health using historical and newly acquired data.
2. **Impact Assessment***: Assess the impacts of environmental stressors on SAV using statistical and spatial modeling techniques.
3. **Fishery Interactions***: Investigate the relationships between SAV changes and fishery productivity to inform management strategies.

Option B: Long-term Monitoring Framework and Outreach Materials

1. **Standardized Monitoring Protocols**: Develop and implement consistent monitoring protocols across Atlantic states in ongoing and new projects.
2. **Data Collection Strategy**: Design a long-term data collection strategy to track SAV health and distribution trends. Use the centralized database to store and analyze long-term monitoring data.
3. **Community Engagement and Educational Outreach**: Develop and implement outreach programs to engage local communities and stakeholders in SAV conservation. Create accessible educational materials (e.g., SAV fact sheets, videos, etc.) to explain the importance of SAV and conservation efforts.

Phase 4: Product Development

1. **SAV Atlas***: *If possible*, develop an interactive, web-based SAV Atlas that includes:
 - a) SAV distribution maps
 - b) SAV trend data
 - c) SAV environmental impact assessments
2. **SAV Toolkit**: Develop an online SAV Toolkit that provides guidelines for SAV conservation, restoration, and management tailored to different stakeholders. The toolkit will include:
 - a) Current maps
 - b) Standardized protocols for SAV mapping, monitoring, and data collection.
 - c) Assessment tools and guidelines for mitigating SAV environmental stressors identified in the assessment.
 - d) Outreach and educational materials.

3. **Monitoring Framework:** Establish a long-term monitoring framework and protocols for ongoing SAV assessment and tracking of SAV health and distribution trends.
4. **Guidance Documents:** Create best practice guidelines for SAV conservation, restoration, and management tailored to different stakeholders.
5. **Final Review:** Conduct a final review and refine the SAV Atlas / Toolkit based on feedback from SC members and initial project results.

Phase 5: Dissemination and Training

1. **Workshops and Training:** Conduct workshops and training sessions for fishery managers, resource managers, and conservation practitioners on using the SAV Atlas / SAV Toolkit and monitoring framework.
2. **Publications and Reports*:** Publish findings in scientific journals and produce summary reports for policy-makers and the general public.
3. **Outreach and Education:** Targeted dissemination of outreach and educational materials to raise awareness about the importance of SAV and its conservation.

Expected Outcomes

1. **Enhanced Understanding:** Comprehensive and up-to-date knowledge of SAV distribution, health, and trends along the Atlantic coast.
2. **Improved Management:** Better-informed management and conservation decisions based on strong data and scientific analysis.
3. **Restoration Success:** Improved methodologies and success metrics for SAV restoration projects.
4. **Increased Collaboration:** Strengthened partnerships among federal and state agencies, NGOs, and academic institutions in SAV research and conservation.
5. **Public Awareness:** Greater public awareness and support for SAV conservation efforts.

Budget and Required Resources

- **Personnel*:** Project coordinator (Simen), GIS specialists (Kat Hoenke, Kate Sherman?), field technicians (partner members' staff), data analysts (Misc.), and outreach specialists (Tina Berger, CBF Staff?).
- **Equipment:** Field survey equipment, remote sensing technology*, and data analysis software.
- **Funding:** May need to seek external funding from federal grants, state agencies, and private foundations.

- **Partnerships:** Collaborate with academic institutions (VIMS?), research organizations (LTER?), and NGOs/Collaboratives (APNEP, LIS Eelgrass Collaborative, East Coast SAV Collaborative) to leverage expertise and resources.

Expected Outcomes:

- ***Standardized Assessment and Restoration:*** A comprehensive, standardized toolkit to ensure consistent and effective SAV assessment, restoration, and monitoring across the Atlantic coast.
- ***Up-to-date SAV Distribution Maps:*** Comprehensive maps to support SAV conservation planning.
- ***Enhanced Understanding of Environmental Stressors:*** Improved strategies for mitigating the impacts of environmental stressors on SAV.
- ***Long-term Monitoring and Data:*** Robust data collection to enable and inform adaptive management.
- ***Increased Stakeholder Engagement:*** Greater involvement of local communities in SAV conservation efforts.

By focusing on standardization, collaboration, and stakeholder engagement, the SAV-ART toolkit will provide fishery and resource managers with the tools they need to implement successful SAV restoration projects, using existing resources and *possibly* without requiring external funding.