



## Narrative Analysis

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### FISH HABITAT OUTCOME – AUGUST 15, 2019

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The narrative analysis summarizes the findings of the logic and action plan and serves as the bridge between the logic and action plan and the quarterly progress meeting presentation. Based on what you learned over the past two years from your successes and challenges, you will describe whether the partnership should make adaptations or change course.

Use your completed pre-quarterly logic and action plan to answer the questions below. After the quarterly progress meeting, your responses to these questions will guide your updates to your logic and action plan. Additional guidance can be found on [ChesapeakeDecisions](#).

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1. Examine your red/yellow/green analysis of your management actions. What lessons have you learned over the past two years of implementation?

*Summarize what you have learned about what worked and what didn't. For example, have you identified additional factors to consider or filled an information gap?*

The outcome reads: “Continually improve effectiveness of fish habitat conservation and restoration efforts by identifying and characterizing critical spawning, nursery and forage areas within the Bay and tributaries for important fish and shellfish, and use existing and new tools to integrate information and conduct assessments to inform restoration and conservation efforts.”

Through the April 2018 STAC workshop, “Factors Influencing Fish Habitat Function in the Chesapeake Bay Watershed: Application to Restoration and Management Decisions”, we identified many stressors that impact different habitat types and refined understanding of critical stressors. The workshop also identified science and research needs, and gaps in understanding of fish habitat. A workshop report was completed in August 2018 and fulfills Actions 1.1 and 2.1 in the Fish Habitat Action Team (FHAT) 2-year workplan.

The team pursued the workshop recommendation to complete the metadata inventory with a GIT-funded project: “Support for Inventory & Evaluation of Environmental and Biological Response Data for Fish Habitat Assessment”. This project is currently underway and will result in a comprehensive stressor and biological condition meta-database and include preliminary analysis of the data. This joint USGS / NOAA effort has demonstrated the value of a designated leadership team working in close collaboration with project partners. Workplan Action 5.1 is to research and coordinate with existing fish habitat assessments. This work is on-going and is critical to stay informed on concurrent assessment efforts to identify opportunities, fill gaps, and avoid overlaps with a Chesapeake Bay watershed regional assessment. The Fish Habitat Action Team coordinator and a subset of members are engaged in different advisory roles with the other regional assessments.

A stakeholder user needs survey was conducted prior to the workshop and its participants included all watershed jurisdictions, local government, non-government organizations, and fishery managers. The survey highlighted that the opportunity for local government planners to utilize fish habitat is more clear than direct application for fishery managers. We have identified that an obstacle is moving toward application of ecosystem-level knowledge and considering habitat in fisheries management.

2. Regardless of how successful your short-term progress has been over the past two years, indicate whether we are making progress at a rate that is necessary to achieve the outcome you are working toward. The example graph below illustrates this concept.

Use the **editable** graph below (or your own chart) to illustrate your progress. Explain any gap(s) between our actual progress and our anticipated trajectory.

We are making progress to inform restoration and conservation efforts, but our progress is not quantified and difficult to evaluate. Given the lack of any metrics or indicators, we cannot currently illustrate progress on the Fish Habitat outcome with a graph or figure.

While a lack of metrics or a numeric goal is a hurdle in evaluating improvements in effectiveness, it does not hinder rate of progress. The regional fish habitat assessment could serve as a means to gather baseline information for fish habitat condition, an indicator or a suite of indicators. We have identified several priority stressors: shoreline hardening, impervious surfaces, and buffer loss. These stressors could potentially be monitored over time as a combined metric of progress. For example, acres of living shorelines created; comprehensive shorelines surveys exist for Virginia but are lacking for parts of Maryland. Currently, no measureable metrics have been agreed on and developed for the outcome.

As another option for evaluating progress, we could develop metrics around current ongoing projects or use the regional fish habitat assessment to develop habitat conservation or restoration objectives and to prioritize high-value habitat areas and co-benefits. Pilot assessments could be considered milestones. Since the outcome is about improving our assessment and characterization techniques, making tangible steps toward an assessment tool demonstrates progress.

3. What scientific, fiscal and policy-related developments will influence your work over the next two years?

*This may include information learned at the previous biennial SRS meeting or more specific information about your outcome such as an increase or decrease in funding, new programs that address gaps, and new scientific data or research. Describe how these developments are likely to impact your recommended measure(s) of progress, the factors you believe impact your ability to succeed, and newly created or filled gaps. These changes should be reflected in the first three columns of your revised logic and action plan after your quarterly progress meeting.*

A number of ongoing research projects will be informative to the Fish Habitat outcome, including a GIT-funded shoreline condition threshold analysis and the inventory of data for regional assessment. NOAA Chesapeake Bay Office also currently has six funded research projects looking at forage and fish habitat relationships. We are tracking project results and will continue to provide updates to the FHAT to identify where results can be utilized.

Looking ahead, NOAA and USGS will continue meeting to determine the regional assessment scope (e.g. how freshwater and tidal parts fit together, specific end products). The regional assessment project will require one or more pilot projects at identified priority areas, informed by lessons learned through the current metadata inventory. It is unclear where the financial resources will come from to complete

pilots and the larger regional assessment. Informing the final products of a regional assessment will greatly benefit from leveraging stakeholder guidance surveys, initially conducted through the STAC workshop and now through more extensive surveys being conducted by NOAA Oxford Lab. Results of the NOAA Oxford Lab surveys will be considered to inform the assessment.

Fish Habitat outcome will continue to be influenced by policy, specifically with new policy developments for shorelines to support nature-based approaches. Finally, the Fish Habitat outcome has an opportunity through USGS Chesapeake Bay Plan recently listing fish habitat as a priority focus area, and continued support from other partners like NOAA.

The Atlantic Coast Fish Habitat partnership is working on a regional fish habitat assessment tool for the purpose of directing priority areas for their restoration and conservation grants. ACFHP may provide opportunity for funding some fish habitat projects in our area.

4. Based on your response to the questions above, how will your work change over the next two years?

*Describe the adaptations that will be necessary to more efficiently achieve your outcome and explain how these changes will lead you to adjust your management strategy or the actions described in column four of your logic and action plan. Changes that the workgroup, GIT or Management Board consider significant should be reflected in your management strategy.*

A major part of the past 2-year workplan was completing the STAC workshop, and making steps toward a regional assessment. Implementing recommendations from the STAC workshop will continue to be a priority, particularly recommendations to develop pilot assessments, prioritize research needs, and establish a community of practice with other assessments. Pursuing pilot studies to support the regional assessment and continued coordination with other regional assessment partners will build on the work already done.

In the next 2 years, communications will become a greater focus as we continue development of a communications strategy and engagement with stakeholders. We will focus FHAT communications around priority stressors and providing information on the economic impacts of fisheries on a local level. We will also determine whether Action 3.1, overlaying fish habitat assessment datasets in a geospatial context, can be accomplished through the regional assessment or if the action needs to be adjusted. Communicating the results of new research will also be needed to meaningfully utilize GIT-funded science.

We will consider whether any quantitative metrics are appropriate for the Fish Habitat outcome, and if so, which ones are necessary to begin monitoring progress. One possible option would be considering ongoing assessment projects that we could use as milestones, like the pilot fish habitat assessments as markers of progress. FHAT team and the assessment steering committee will continue to determine a timeline and milestones for the broader assessment moving forward.

5. What, if any, actions can the Management Board take to help ensure success in achieving your outcome?

*Please be as specific as possible. Do you need direct action by the Management Board? Or can the Management Board direct or facilitate action through other groups? Can you describe efforts the workgroup has already taken to address this issue? If this need is not met, how will progress toward your outcome be affected? This assistance may include support from within a Management Board member's jurisdiction or agency.*

Last SRS review, we asked for inclusion of fish habitat in WIP factsheets, leading to further efforts with WIP Engagement Action Team. To continue fish habitat engagement in WIPs, we are now asking for Management Board support in identifying opportunities in the WIP process, including timelines and key points of contact, and to overlay fish habitat priorities with water quality priorities to target WIP BMPs. As we work to develop a communications strategy for fish habitat action team in the next 2 year cycle, we will determine key messages to communicate about fish habitat to specific target audiences (local governments and planners), and critical actions for the audience to take. Management Board can help by identifying points of contacts from state agencies that can engage with trusted messengers on the ground to deliver our message at strategic times (for example, WIP milestones in 2020). While we now have updated WIP factsheets, we want to know how effective the actions taken since last SRS review have been in integrating fish habitat throughout the WIP process and promoting more high impact BMPs with co-benefits to fish habitat.

Ask: what is the best strategy in identifying opportunities for fish habitat BMP co-benefits?

Focusing on the top priority stressors identified by the Fish Habitat Action Team – impervious surfaces, hardened shorelines, forest buffer loss – and armed with results of research identifying several species-specific shoreline condition thresholds between 10-30% hardened shoreline, we now plan to move toward developing targeted messaging for several specific audiences (local government planners, critical areas commission, landowners, state agencies, general public), working with permitting agencies to start discussing implementation of shoreline hardening limits or planning targets at the county level. Management Board can help by offering guidance on how to start moving toward planning, regulation and/or policy for shoreline hardening.

More specific ask: how can we start to move from research to application in preventing further shoreline hardening (a priority stressor for fish habitat)?