

Biennial Strategy Review System: Logic Table and Work Plan

Instructions: The following Logic Table should be used to articulate, document, and examine the reasoning behind your work toward an Outcome. Your reasoning—or logic—should be based on the Partnership’s adaptive management [decision framework](#). This table allows you to indicate the status of your management actions and denote which actions have or will play the biggest role in making progress.

Some Management Strategies and Work Plans will not immediately or easily fit into this analytical format. However, **all GITs should complete columns one through four** to bring consistency to and heighten the utility of these guiding documents. The remaining columns are recommended for those who are able to complete them. If you have any questions as you are completing this table, please contact SRS Team Coordinator Laura Free (free.laura@epa.gov).

The instructions below should be used to complete the table. An example table is available on the [GIT 6 webpage](#) under “Projects and Resources”.

1. For the first round of strategic review (2017-2018): Use your existing Work Plan actions to complete the **Work Plan Actions** section first. Make sure to number each of the actions under a high-level Management Approach, as these numbers will provide a link between the work plan and the logic table above it. Use color to indicate the status of your actions: a **green** row indicates an action has been completed or is moving forward as planned; a **yellow** row indicates an action has encountered minor obstacles; and a **red** row indicates an action has not been taken or has encountered a serious barrier.
2. **Required:** In the column labeled **Factor**, list the significant factors (both positive and negative) that will or could affect your progress toward an Outcome. The most effective method to ensure logic flow is to list all your factors and then complete each row for each factor. Consult our Guide to Influencing Factors (Appendix B of the Quarterly Progress Meeting Guide on the [GIT 6 webpage](#) under “Projects and Resources”) to ensure your list is reasonably comprehensive and has considered human and natural systems. Include any factors that were not mentioned in your original Management Strategy or Work Plan but should be addressed in any revised course of action. If an unmanageable factor significantly impacts your outcome (e.g., climate change), you might choose to list it here and describe how you are tracking (but not managing) that factor.
3. **Required:** In the column labeled **Current Efforts**, use keywords to describe existing programs or current efforts that other organizations are taking that happen to support your work to manage an influencing factor but would take place even without the influence or coordination of the Chesapeake Bay Program. You may also include current efforts by the Chesapeake Bay Program. Many of these current efforts may already be identified in your Management Strategy; you may choose to link the keywords used in this table to your Management Strategy document for additional context. You may also choose to include some of these efforts as actions in your work plan; if you do, please include the action’s number and hyperlink.
4. **Required:** In the column labeled **Gap**, list any existing gap(s) left by those programs that may already be in place to address an influencing factor. These gaps should help determine the actions that should be taken by the Chesapeake Bay Program through the collective efforts of Goal Implementation Teams, Workgroups, and internal support teams like STAR, or the actions that should be taken by individual partners to support our collective work (e.g., a presentation of scientific findings by a federal agency to a Chesapeake Bay Program workgroup). These gaps may already be listed in your Management Strategy.
5. **Required:** In the column labeled **Actions**, list the number that corresponds to the action(s) you are taking to fill identified gaps in managing influencing factors. Include on a separate line those approaches and/or actions that may not be linked to an influencing factor. To help identify the action number, you may also include a few key words. Emphasize critical actions in **bold**.
6. **Optional:** In the column labeled **Metric**, describe any metric(s) or observation(s) that will be used to determine whether your management actions have achieved the intended result.
7. **Optional:** In the column labeled **Expected Response and Application**, briefly describe the expected effects and future application of your management actions. Include the timing and magnitude of any expected changes, whether these changes have occurred, and how these changes will influence your next steps
8. **Optional:** In the column labeled **Learn/Adapt**, describe what you learned from taking an action and how this lesson will impact your work plan or Management Strategy going forward.

Forage Logic Table and Work Plan

Primary Users: Goal Implementation Teams, Workgroups, and Management Board | **Secondary Audience:** Interested Internal or External Parties

Primary Purpose: To assist partners in thinking through the relationships between their actions and specific factors, existing programs and gaps (either new or identified in their Management Strategies) and to help workgroups and Goal Implementation Teams prepare to present significant findings related to these actions and/or factors, existing programs and gaps to the Management Board. | **Secondary Purpose:** To enable those who are not familiar with a workgroup to understand and trace the logic driving its actions.

Reminder: As you complete the table below, keep in mind that removing actions, adapting actions, or adding new actions may require you to adjust the high-level Management Approaches outlined in your Management Strategy (to ensure these approaches continue to represent the collection of actions below them).

Long-term Target: (the metric for success of Outcome):

Two-year Target: (increment of metric for success):

KEY: Use the following colors to indicate whether a Metric and Expected Response have been identified.	
Metric	Specific metrics have not been identified
	Metrics have been identified
Expected Response	No timeline for progress for this action has been specified
	Timeline has been specified

Factor	Current Efforts	Gap	Actions (critical in bold)	Metrics	Expected Response and Application	Learn/Adapt
<i>What is impacting our ability to achieve our outcome?</i>	<i>What current efforts are addressing this factor?</i>	<i>What further efforts or information are needed to fully address this factor?</i>	<i>What actions are essential to achieve our outcome?</i>	<i>Optional: Do we have a measure of progress? How do we know if we have achieved the intended result?</i>	<i>Optional: What effects do we expect to see as a result of this action, when, and what is the anticipated application of these changes?</i>	<i>Optional: What did we learn from taking this action? How will this lesson impact our work?</i>
Scientific and Technical Understanding of Forage in Shallow Water Habitat: Determine presence, abundance, diversity of forage species in shallow water estuarine habitats.	Small-scale citizen scientist forage monitoring effort with local watershed organizations. Study by SERC investigated the connection between the land-water interface on finfish and benthic species. Shallow water trawl surveys by state agencies.	A comprehensive review of data should be conducted to determine what areas of estuarine shallow water habitats are not being sampled. Very little information on benthic species is available in these habitats.	2.1, 2.2, 3.2, 4.1	No. We do not currently have a measure of progress.	Results of citizen science monitoring project – March 2018. Results of Shoreline threshold study – February 2019	We are making incremental gains in our understanding of forage occupying estuarine shallow-water habitat through various small-scale projects and studies. However, a larger, coordinated citizen monitoring effort or Baywide survey would close this gap. However, there is no dedicated funding to accomplish something of this scale.

Factor	Current Efforts	Gap	Actions (critical in bold)	Metrics	Expected Response and Application	Learn/Adapt
<i>What is impacting our ability to achieve our outcome?</i>	<i>What current efforts are addressing this factor?</i>	<i>What further efforts or information are needed to fully address this factor?</i>	<i>What actions are essential to achieve our outcome?</i>	<i>Optional: Do we have a measure of progress? How do we know if we have achieved the intended result?</i>	<i>Optional: What effects do we expect to see as a result of this action, when, and what is the anticipated application of these changes?</i>	<i>Optional: What did we learn from taking this action? How will this lesson impact our work?</i>
Partner Coordination: Collaborate on the selection of species to include in a forage indicator. With assistance from STAR team, select suite of indicators to monitor forage base and provide managers with appropriate information.	GIT-funded forage study produced a suite of potential forage indicators.	Choosing an indicator or suite of indicators will require extensive federal, state, and nongovernmental coordination. Effective use of time will be key.	2.1	No. We do not currently have a measure of progress.		The 2014 STAC workshop and other studies conducted by UMCES have highlighted important forage species, as well as some temporal and spatial patterns. Developing an indicator will allow for more rigorous, consistent tracking of the forage base to ensure healthy predators.
Partner Coordination: Develop consensus on management strategy and objectives of forage outcome.	Recommendations to change language to indicate the diverse species communities that comprise forage in the Chesapeake Bay.	Recent review of Forage Outcome Management Strategy.	1.1		An updated Management Strategy that emphasizes both the invertebrate and vertebrate forage species comprising forage. Potential updates to other components of the Management Strategy.	
Public, Nongovernmental Organization, and Government Agency Engagement: Communication on ongoing forage research to public, nongovernmental organizations, and government agencies. Ensure usability of shoreline study, and forage sampling study results.	<u>Forage Video:</u> Communicated value of forage through CBP video <u>Fish Habitat WIP Fact Sheet:</u> Recommended the prioritization of Best Management Practices (BMPs) that benefit forage species and fish habitat <u>Forage Presentations:</u> The Fish GIT and the Forage Action Team regularly schedule forage research presentations to inform partners of relevant forage studies	Need to synthesize and present recent studies into formats that can engage a variety of audiences.	3.1 , 4.1			

Action	Description	Performance Target(s)	Responsible (Party or Parties)	Geographic Location	Expected Timeline
Management Approach 1: Define forage species and what comprises the forage base.					
1.1	Review management strategy and explore making changes to better reflect our goals.	Examine the steps necessary to change 'Forage Fish' language in the outcome to better represent the broad taxa that comprise the forage base.	Forage Action Team, Management Board	Baywide	September 2018
		Decide on other changes that should be made to management strategy.	Forage Action Team	Baywide	December 2018
Management Approach 2: Determine the status of the forage base including a definition of "balanced" state.					
2.1	Select Forage indicator or suite of indicators to track and assess status of forage base available to predators.	Develop criteria required to select forage indicators (data availability, cost of future monitoring, etc.) with guidance from Scientific, Technical Assessment and Reporting (STAR) team.	Forage Action Team, STAR	Baywide	June 2018
		Select forage species to include in suite of indicators based on criteria.	Forage Action Team	Baywide	September 2018
		Present chosen species and potential indicators to managers, and discuss how trends and thresholds may lead to management actions.	Forage Action Team, MD DNR, VMRC, PRFC	Baywide	December 2018
		Choose indicators.	Forage Action Team	Baywide	February 2019
2.2	Assist Climate Resiliency Workgroup in evaluating a climate indicator that involves forage.	Advise on how fish population distributions may be incorporated into a climate resiliency indicator.	Forage Action Team, CRWG	Baywide	Ongoing
Management Approach 3: Inform management decisions to better address sustainability of the forage base					
3.1	Communicate the results of ongoing forage research with a variety of audiences.	Examine the opportunities to create videos, articles, or other content to share the important of forage and project results with the scientific community and larger Chesapeake Bay community.	Forage Action Team, Comms Team, Pls	Baywide	Ongoing
3.2	Complete the Shoreline Threshold Condition study and disseminate results.	Advise on the Shoreline Threshold study and consider how the results can be applied.	Forage Action Team	Baywide	Ongoing
		Share results with the contacts for the Fish Habitat Watershed Implementation Plan Fact Sheet or create other tools for community planners/managers.	Forage Action Team, Fish Habitat Action Team	Baywide	Spring 2019

Management Approach 4: Maximize the efficiency of monitoring programs and build on existing efforts.

4.1	Collaborate with the CBP's Scientific, Technical Assessment and Reporting Team to evaluate options for shallow water monitoring efforts and zooplankton surveys.	Inventory existing datasets and their potential to be incorporated into forage monitoring efforts, prioritize remaining data gaps (i.e. mysids, plankton surveys) and identify potential funding mechanisms to implement monitoring.	STAR, Forage Action Team, Budget and Finance Workgroup	Baywide	Spring 2018
		Disseminate results from the pilot citizen science monitoring pilot project (James, Severn, Eastern Bay, Choptank, and Susquehanna Flats). Continue to evaluate citizen science sampling as a means to gather data.	Forage Action Team, forage project PIs	Baywide	Spring 2019