**Applying the Decision Framework to Attaining Habitat Goal in the**

**Chesapeake Bay and Its Tidal Tributaries**

**Articulate Program Goals**

Overarching Goal: Restore a network of land and water habitats to support priority species and to afford other public benefits, including water quality, recreational uses and scenic value across the watershed.

Outcomes

1. Wetlands: Restore 30,000 acres of tidal and non-tidal wetlands and enhance function of an additional 150,000 acres of degraded wetlands, and protect an additional 225,000 acres of wetlands by 2025.
   1. Black Duck: Restore a three-year average wintering black duck population in the watershed of 100,000 birds by 2025.
2. Streams: Restore stream health and function so that 70% of sampled stream sites throughout the watershed rate fair, good or excellent as measured by the Index of Biotic Integrity by 2025.
   1. Brook Trout: Increase naturally reproducing brook trout populations in headwater streams by 8% over existing patch area by 2025. \*\*Currently under revision to finer scale ‘patch’ metric\*\* Currently under revision by STAR. TBD Dec 2012.
   2. Fish Passage: During the period of 2011-2025, restore historical fish migratory routes by opening 1,000 additional stream miles. Presence of river herring, American shad, Hickory shad, Brook Trout (fish passage?) and/or American eel in restored rivers and streams.
3. Submerged Aquatic Vegetation: Achieve and maintain 185,000 acres of SAV in Chesapeake Bay to meet water quality standards.
4. Forests: Riparian Forest Buffers: ~63% of all streams buffered by 2025

**Describe factors influencing goal attainment**

Capacity

1. The capacity of governments and the private sector to implement restoration
2. The capacity to monitor streams and track restoration
3. Necessary funding

Knowledge/ Understanding

1. Understanding/ defining a network
2. Understanding the sustainability of habitats in the face of climate change and sea level rise
3. Understanding the role of water quality in habitat restoration (stream/ brook trout)
4. Understanding the feedback of restoration on habitat for priority species (black duck, brook trout).
5. Identifying the role of habitat restoration in the attainment of water quality and other goals (fisheries - blue crab)
6. Understanding the feedback of restoration on habitat for other species, achievement of water quality and recreational uses.

**Assess Current Management Efforts (and gaps)**

Each jurisdiction is managing restoration efforts differently and from a jurisdictional, rather than Bay, perspective. The role of the Bay Program in individual restoration efforts is not well defined. The exception to this may be SAV - which is not only a habitat goal but also a water quality goal – and more intrinsically a shared Bay resource.

Management Gaps

* Efficient, transparent accounting
* Partner agreement on definition of restoration and enhancement
* Agreement on preservation
* Comprehensive restoration targeting to maximize priority species, water quality and recreational uses
* Accountability for goal attainment

**Overview of Habitats and Linked Goals and Associated GITs**

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| --- | --- | --- |
| Habitat | Linked Goals | GITS |
| SAV | Blue crab, Water Quality | Fisheries, WQ |
| Riparian Buffer | Water quality, Healthy Watersheds | WQ, watersheds, Stewardship |
| Wetlands | Water quality, blue crab, anadromous fish, Healthy watersheds | WQ, Fisheries, Watersheds |
| Fish Passage | Anadromous fish, water quality | Fisheries, WQ |

**Develop Management Strategy**

* Measure/ assess private and public capacity for restoration (Factor1)
* Ensure capacity for monitoring/ tracking (Factor 2)
* Assessing the network (Factor 4)
  + Are all the components defined?
  + Are the components being tracked
* Assess the response of the restored habitats to climate change/ sea level rise (Factor 5)
* Develop measures for the effect of wetlands restoration on black duck and other priority species Factor 7)
* Assess the role of water quality in stream health (Factor 6)
* Develop metrics for the response of brook trout to fair, good and excellent stream IBI (Factor 7)
* Develop measure to assess the effect of fish passage on priority species (Factor7)
* Develop measures for the effect of SAV restoration on blue crab populations and other priority species (Factor 8 and 9)
* Develop a metric to assess the effect of riparian buffer restoration on priority species. (Factor 9)
* Develop metrics to assess the recreational and scenic value of restored habitats (Factor 9)