

Tidal Marsh Adaptation Project

Framing and definitions (DRAFT)

Overview

The Tidal Marsh Adaptation Project aims to identify large-scale tidal marsh projects in at least two regional focus areas within Maryland, Virginia, or neighboring tribal lands. The selected projects will focus on research and implementation efforts to advance knowledge and practices around tidal marsh persistence and longevity in consideration of climate resilience and social vulnerability.

- Tidal marsh adaptation implementation project efforts might include a mix of strategies and tools to protect marshes and shorelines (i.e., living shorelines), increase resilience (i.e., thin layering) and support transition of other land types into marsh areas through physical interventions, acquisition, or policy (i.e., constructing runnels to support upland migration). Project opportunities will depend on land ownership.
- Tidal marsh adaptation research efforts might focus on data collection, analysis, modeling, monitoring, or evaluating adaptive strategies and tools to guide tidal marsh management efforts in consideration of sea level rise between now and 2100.

Definitions

- **Marsh Adaptation:** Incorporating climate change information and resilience strategies when planning, designing, implementing, and managing marsh restoration and conservation projects to enhance the longevity of marsh area and health. (Definition from Julie)
- **Conservation:** Overall term to describe the management, care, and protection of marshes so these natural resources can persist for future generations. “Conservation” is often used to include a broad range of activities including preserving, protecting, restoring, and enhancing wetland habitats for indigenous wildlife and vegetation.
- **Restoration:** returning tidal marshes that have been degraded by human or natural to a close approximation of the ecosystem’s healthy condition prior to disturbance. Restoration includes **re-establishment** (returning a former wetland to its natural, historic state) and **rehabilitation** (repairing the historic functions of a degraded wetland).¹
- **Establishment** – creating or constructing a wetland (by manipulation of the physical, chemical, or biological characteristics present) where one did not previously exist.
- **Enhancement** - improving one or more functions of an existing wetland.
- **Protection/maintenance** - removal of a threat to existing wetlands. (According to Chesapeake Bay, “protection” is acquiring land or easements of at least 30 years.)

¹ The Federal Geographic Data Committee, Wetlands Subcommittee developed terminology to help agencies track and report wetland area increases by activity. Review the full definitions and examples [here](#). The committee’s terminology and definitions closely align with those cited on the [Chesapeake Bay Program wetland site](#).

References

Federal Agency Definitions of Wetland Tracking

<https://www.epa.gov/wetlands/wetlands-restoration-definitions-and-distinctions>

The Federal Geographic Data Committee, Wetlands Subcommittee developed definitions for restoration and related activities designed to aid agencies in accurately reporting wetland increases due to their program activities. Many different definitions of these terms have been used by various agencies. The definitions below provide standard terminology for the more than 15 agencies involved in wetland restoration, related activities, and/or mitigation.

- **Restoration:** the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to former or degraded wetland. For the purpose of tracking net gains in wetland acres, restoration is divided into:
- **Re-establishment:** the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former wetland. Re-establishment results in rebuilding a former wetland and results in a gain in wetland acres.
- **Rehabilitation:** the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions of degraded wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres.
- **Establishment:** the manipulation of the physical, chemical, or biological characteristics present to develop a wetland that did not previously exist on an upland or deepwater site. Establishment results in a gain in wetland acres.
- **Enhancement:** the manipulation of the physical, chemical, or biological characteristics of a wetland (undisturbed or degraded) site heighten, intensify, or improve specific function(s) or for a purpose such as water quality improvement, flood water retention or wildlife habitat. Enhancement results in a change in wetland function(s) and can lead to a decline in other wetland function but does not result in a gain in wetland acres. This term includes activities commonly associated with the terms enhancement, management, manipulation, directed alteration.
- **Protection/Maintenance:** the removal of a threat to, or preventing decline of, wetland conditions by an action in or near a wetland. Includes purchase of land or easement, repairing water control structures or fences, or structural protection such as repairing a barrier island. This term also includes activities commonly associated with the term preservation. Protection/Maintenance does not result in a gain of wetland acres or function.

Chesapeake Bay Program Wetlands Language

<https://www.chesapeakebay.net/issues/whats-at-risk/wetlands>

There are five definitions scientists use to track wetland restoration:

- **Establishment** is creating a wetland where one did not previously exist.
- **Re-establishment** is returning a former wetland to its natural, historic state. Usually former wetlands have been drained for another use, such as agriculture.

- **Enhancement** is improving one or more functions of an existing wetland, such as flooding a seasonal wetland to benefit waterfowl.
- **Rehabilitation** is repairing the historic functions of a degraded wetland, such as removing invasive species like nutria and phragmites.
- **Protection** is acquiring land or easements of at least 30 years.