

Revised 7/1/2017

Consistency with the 2017 Coastal Master Plan:

Guidelines for Restoration Projects Receiving State Funding

To be consistent with the State of Louisiana's 2017 Coastal Master Plan (MP), and to receive state funding support, a project must be included in the MP (i.e., it must have the same general location, project type, features, and borrow source as a project identified in the MP). There are, of course, scenarios where on-the-ground conditions will require adjustments to project configurations.

In an effort to accommodate projects that may not fall directly within a project location identified in the MP, CPRA has avoided making strict guidelines about the distance a proposed project must be from a MP project, or what percentage of the project costs can be allocated outside of the location and scope of the MP projects. Below are general guidelines to help develop restoration projects that are consistent with the MP. These guidelines are applicable to all restoration projects that receive state funding.

Shoreline Protection – Shoreline protection is the installation of rock breakwaters to reduce wave energies along shorelines in open bays, lakes, sounds, channels, and bayous. The locations for such measures are clearly defined in the MP. There may be scenarios where on-the-ground conditions necessitate adjustments to project configurations in order to best meet localized needs. There also may be scenarios where conditions require us to consider non-rock alternatives to shoreline protection.

Barrier Islands – Creation and restoration of dune, beach, and back barrier marsh to restore or augment Louisiana's barrier islands and headlands is a critical part of the MP. Dredging and placement of sediment, to achieve these goals for the barrier islands identified in the MP will be considered consistent. In cases where engineering and technical analysis show that the inclusion of structural features is beneficial to long-term project performance (e.g., terminal groins, breakwaters, etc.), the feature may be considered.

Small-Scale Hydrologic Restoration – The biggest drivers of marsh health in coastal Louisiana are salinity and water level. Hydrologic restoration, as a technique for improving marsh health, seeks to restore natural hydrologic patterns either by conveying fresh water to areas that have been isolated by man-made features, relieving unnatural impoundments, or by preventing the intrusion of salt water.

Hydrologic restoration can range in scale from large scale freshwater diversions and locks to spoil bank gapping and culverts for drainage. Given the grid resolution of the modeling used to inform the MP, we were unable to fully evaluate impacts of many of the smaller-scale hydrologic restoration projects.

While the state will focus most of its resources on the projects specifically identified in the MP, we recognize that there are many small-scale hydrologic improvements that could benefit existing wetlands and work synergistically with existing and planned restoration projects. The State will partner on small-scale hydrologic restoration projects designed to relieve impoundments, convey freshwater, and/or limit saltwater intrusion through programs such as the Restoration Partnership Fund and CWPPRA where projects can be evaluated on a case-by-case basis.

Marsh Creation – The MP identifies over 300,000 acres to be targeted for marsh creation and nourishment through sediment dredging and placement. Large, contiguous marsh creation projects are more cost-effective than many small isolated marsh creation projects. Generally, if a proposed marsh creation project is largely within the areas identified in the MP, it is consistent. Many of the marsh creation projects identified in the MP cover thousands of acres. Understanding that we cannot model every possible orientation of a multi-thousand acre marsh creation cell, we will make an effort to try to accommodate marsh creation projects that do not fall entirely within the footprint of MP projects.

Oyster Reef – Artificial or bioengineered oyster reef projects, in which reefs are created using shell or engineered products to provide substrate for oyster recruitment, have become an increasingly popular restoration technique over the last decade. The primary goal of these projects is coastal restoration, not management or enhancement of the oyster fishery. They can provide a number of benefits including protecting shorelines, creating habitat for other fauna, reducing saltwater exchange, and reducing fetch in open water. In areas suitable for oyster recruitment and growth, these reefs could serve as an alternative to traditional shoreline protection methods. So far, in limited applications, we have seen promising results, though their overall effectiveness is still being evaluated through several projects in Louisiana.

The 2017 MP evaluated several large artificial oyster barrier reef projects, with the primary goal being shoreline protection. Given the scope of the plan and model limitations, smaller-scale oyster reef projects—the types of projects that are currently being proposed and constructed across the state—could not be modeled. We intend to focus the majority of our resources on the large scale restoration projects specifically identified in the MP. However, we will continue to partner on oyster reef projects through programs such as the Restoration Partnership Fund and CWPPRA where projects can be evaluated on a case-by-case basis.

Forested Wetland Restoration – Because the MP specifically targeted projects that maximize land gain, the restoration of existing forested wetlands could not be accurately accounted for. As such, forested wetland projects, with the exception of ridge restoration projects, are not identified in the MP. Nevertheless, it is recognized that coastal forests are vitally important ecosystem and landscape features to coastal Louisiana. Techniques to restore forested habitat are variable and site-specific and are generally consistent with the MP.

Ridge Restoration – The goal of ridge restoration is to reestablish historic ridges through local dredging, sediment placement and vegetative plantings that restore natural ridge functions. Many ridge projects will require a complementary marsh creation component to mitigate for marsh lost in the construction of the ridge and to help protect the ridge. Marsh is not a substitute for the habitat or structural value of ridges, but could be considered a component of a ridge restoration project; serving to increase the longevity of a constructed ridge.

Sediment Diversion – Large scale sediment diversions—using new channels and/or structures to divert sediment and fresh water from the Mississippi and Atchafalaya Rivers into adjacent basins—are a cornerstone of the MP. Marsh creation in the influence area is not a substitute for the long-term benefits of sediment diversions, and is not consistent unless specifically identified in the MP.

Terraces - Marsh terracing as a restoration technique is not a feature of the 2017 MP. CPRA and the Master Plan FDT recognize the fetch reduction and habitat value provided by terracing; however, the

primary goal of the restoration component of the 2017 Coastal Master Plan is to reverse land loss. We welcome parishes, non-profits, landowners, and other stakeholders to continue utilizing terraces to improve habitat and reduce fetch; however, in order to realize the goals of the MP, we must focus our resources on techniques such as marsh creation, which are more effective for large-scale ecosystem restoration.

With that in mind, we recognize that there are circumstances where having terraces as a small project component could improve the overall performance of a project and the following considerations will be used as evaluation criteria:

1. Terracing is not a substitute for marsh creation.
2. Under certain circumstances, terracing may be used as an outfall management technique. In these situations, the terraces would prevent freshwater and sediment inputs from exiting the intended receiving area.
3. Terracing may be used to reduce fetch in large open water areas where long fetch distances increase shoreline erosion.
4. Terracing may comprise a maximum of 10% of project construction costs.

Borrow Sources - We should strive to use sediment from renewable sources and from outside the coastal system for marsh creation projects. In some cases, using internal borrow material is the only feasible or cost-effective option and therefore must be considered, but only if doing so would not accelerate land loss or increase wave action. In developing the MP we analyzed projects that use in-system borrow, and a limited number of these projects are included. In implementing any large marsh creation project, we will conduct appropriate analyses to ensure that our efforts do not exacerbate the problem we are working to solve.

For questions and comments, please contact:

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