

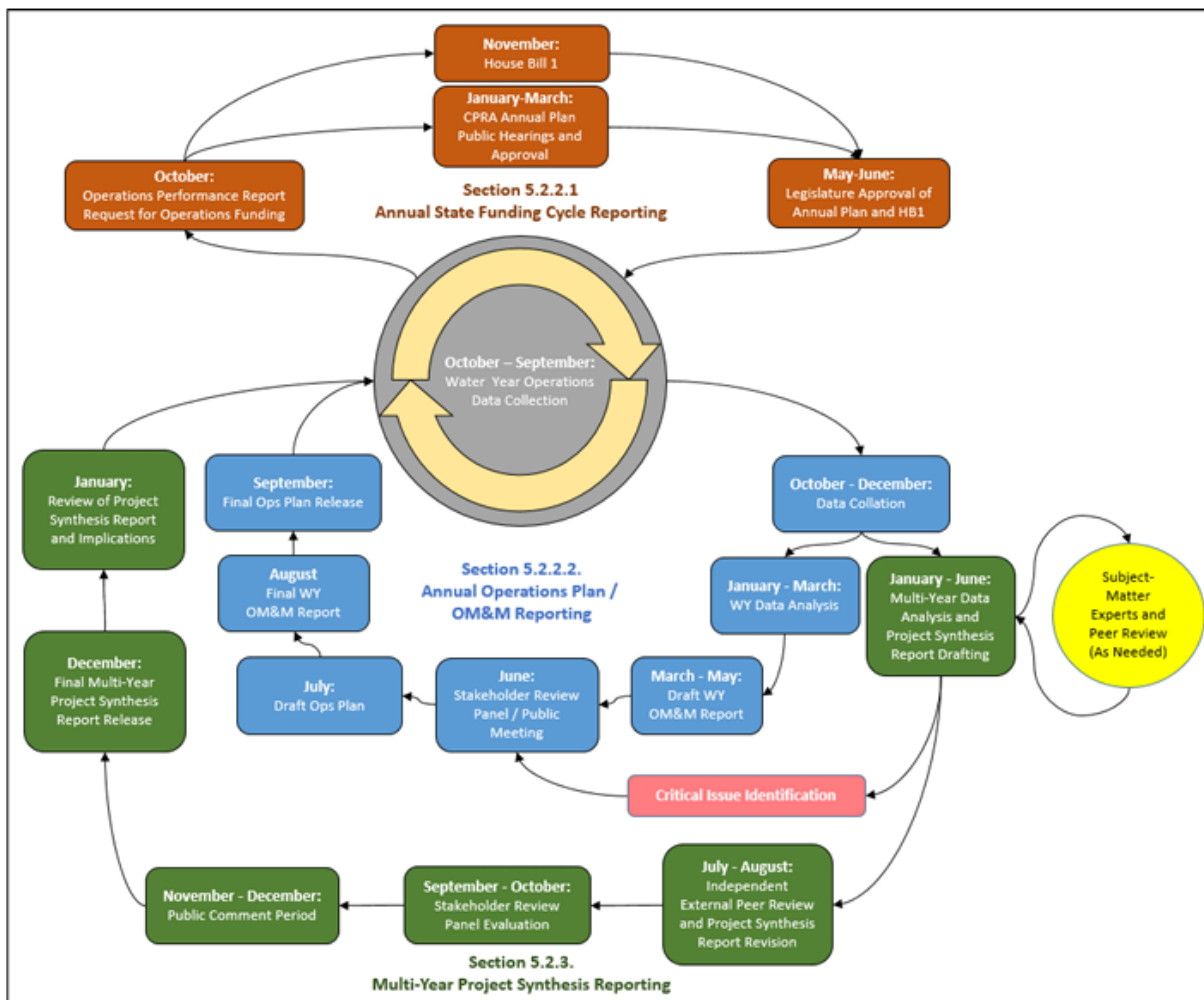
## Adaptive Management FAQs

### **1. *How will stakeholder (fishers, outside levee residents, users of the basin, etc.) input and observations be accounted for and influence operations?***

General: Stakeholders are an essential source of input for adaptive management of sediment diversions. For that reason, CPRA's mitigation and adaptive management plans are informed by extensive outreach and engagement opportunities with community members, the seafood industry, scientific and academic communities, residents, navigation representatives, and other stakeholder groups. CPRA plans to operate sediment diversions using their tailored mitigation and adaptive management (MAM) plans that will respond to operational triggers, impacts, and evaluated data sets.

MBSD: CPRA will publish an annual water year Operations, Maintenance and Monitoring (OM&M Report) (including progress towards reducing critical uncertainties to address learning strategies and recommendations from an Adaptive Management Team to suggest adaptive actions, MAM Plan revisions, and operational changes) as well as the proposed annual Operations Plan for the upcoming water year (WY). The OM&M Report (full name: Annual OM&M Reports of Water Year Project Effectiveness and Status and Trends Data) provides data collection results, attribute outcomes, operations information, maintenance updates, recommendations for monitoring, additional projects features, lessons learned, etc. from the previous year's operations. The Annual Operations Plan contains information regarding how the structure will operate in the coming year, and it includes adjustments to structure operations that are informed by the OM&M Report as well as annual operations performance reports.

Both the OM&M Report and annual Operations Plan will be presented to stakeholders and the public in order to solicit comments, perspectives, and insights. Completion and release of the previous year's OM&M Report will occur in August, and the final operations plan for the next Water Year will occur in September of each year. Note: the WY is defined as a 12-month period between October 1-September 30; the WY is designated by the calendar year in which it ends. Multi-year MAM Reports will occur at five-year intervals, in which CPRA will be able to assess processes on a longer time scale. This Multi-year MAM Plan will also offer a 30-day public comment period on the final draft report, after which CPRA will revise the report based on the reviews received. The below figure was included in the Mid Barataria Sediment Diversion Final Environmental Impact Statement. It may be of use to follow along with the annual reporting cycle.



**Figure 5.2-1.** Idealized timeline of Annual Cycle Adaptive Management Activities discussed in Section 5.2.2 and the Multi-year Project data evaluations discussed in Section 5.2.3. The steps illustrated in the orange boxes are discussed in Section 5.2.2.1. The steps illustrated in the blue boxes are discussed in Section 5.2.2.2. The steps illustrated in the green boxes are discussed in Section 5.2.3.

## 2. *Who will be involved in the decisions to change the operations based on Adaptive Management?*

General: CPRA's Executive Team will ultimately make the final decisions regarding operational changes to sediment diversions based off adaptive management. These decisions will be informed by monitoring and evaluation data. Additionally, through annual plan reporting and review, CPRA will provide opportunities for external stakeholder input and opportunities for information exchange.

MBSD: CPRA Executive Team decisions will be informed by Data, Operations, and Adaptive Management Teams, as well as a Stakeholder Review Panel and solicited public comments as necessary, prior to operational implementation. There are numerous opportunities for external input (public, expert, etc.) throughout the AM cycle where

CPRA will provide opportunities for information exchange (see reporting and MAM plan schedule in Question 1).

**3. *What is the difference between adaptive management in this context and how people are already adapting to the changing coast?***

General / MBSD: Adaptive Management of sediment diversions is different than adaptation actions already happening on the Louisiana coast. Actions are represented through projects such as shoreline protection, marsh creation, barrier island restoration, and more structural and nonstructural restoration / risk reduction projects are happening on a large scale (with many more projects in the works for CPRA). In contrast, adaptive management for sediment diversions deals with managing sediment diversion structure operations depending on evaluated monitoring data and new information. Adaptive management of sediment diversions is intended to maximize the benefits of sediment transport and, to the extent practical, reduce negative environmental impacts. Examples of adaptive management actions for sediment diversion structures can be found in Question 5.

**4. *How does Adaptive Management translate to operations of the diversion?***

General: Each sediment diversion will have specific objectives which will shape operational goals and adaptive management actions. As these sediment diversions become operational and additional monitoring data is collected and evaluated, adaptive management actions will become more concrete.

An example of an adaptive management approach is turn-taking optimization, where the structure is operated differently. For example, one year to optimize fisheries outcomes, one year for crabs, one year for oysters, etc. Turn-taking allows cycling between indicators so that each can be successful in different years. Using this approach to operations allows more indicators to achieve a greater number of good years than conventional operation scenarios.

MBSD: For the Mid Barataria Sediment Diversion, there are three recognized project objectives: (1) Deliver freshwater, sediment, and nutrients to Barataria Bay through a large-scale sediment diversion from the Mississippi River, (2) Reconnect and re-establish sustainable deltaic processes between the Mississippi River and the Barataria Basin, and (3) Create, restore, and sustain wetlands and associated ecosystem services.

For these objectives and their associated monitored parameters, there are a number of adaptive management actions that could be triggered by operational results. As sediment diversions become operational and additional data is collected, adaptive management actions will become more concrete. Examples include:

- Adjustment of operational discharges (within permitted ranges)
- Maintenance dredging of canals
- Outfall management measures to limit loss of sediments from canals or increase deposition of sediments

- Adjustment of timing/extent project structure is opened between operational and base flows within permitted ranges.
- Shellfish harvesting closures
- Recreational water advisories
- Control or eradication measures for aquatic invasive species deemed a threat to ecosystem function
- Increase in frequency and/or intensity, and potential expansion of sampling (for contaminants in fish, shellfish, and wildlife)

Specifically for Bottlenose Dolphins:

- Increase in Marine Mammal Stranding Network effort, analyses, and response
- Increase in visual health assessment sampling frequency, possibly combined with stranding response active surveillance
- Increase in biopsy frequency or implementation
- Bioenergetics study
- Operational modifications

#### **5. *What indicators are tracked for adaptive management?***

General: General categories for monitored parameters that CPRA considers during the operations of the diversions are:

- Landscape characteristics
- Sediment characteristics
- Fish, wildlife, and invertebrates
- Vegetation characteristics
- Hydrologic attributes
- Water quality indicators.

More specific parameter information can be found in sediment diversion MAM Plans that will likely be published when a project comes online and is operational.

MBSD: Prior to the onset of project operations, data will be collected in the main stem of the Mississippi River and in the Barataria Basin to establish baseline conditions. When the project becomes operational, data collection will continue to measure project effectiveness. Current details on specific monitored parameters can be found for the Mid-Barataria Sediment Diversion in its FEIS (Appendix R2, Tables 4.1-1 to 4.1-3), though these are subject to changes in the project's final Record of Decision and through its Annual / Multi-Year MAM planning and reporting process.

#### **6. *Where can the adaptive management plan be found?***

General: Adaptive management plans can be found on CPRA's website as sediment diversions become operational. These plans should be updated annually depending on data results, data evaluation, new information, and stakeholder input.

MBSD:

The draft MAM Plan for the Mid-Barataria Sediment Diversion can be found at <https://www.mvn.usace.army.mil/Missions/Regulatory/Permits/Mid-Barataria-Sediment-Diversion-EIS/>

- In “EIS Documents,” expand the “Final EIS” dropdown menu and scroll down to “Appendix R.” The MAM Plan can be found in Appendix R2. As diversions come online, CPRA will fulfil the above-mentioned reporting requirements and plan publications for specific diversion operations.