

WHAT'S COOKIN' ON THE LOUISIANA COAST?

A Recipe for Adaptive Management of Sediment Diversions

To address Louisiana's coastal land loss crisis, the Coastal Protection and Restoration Authority (CPRA) will construct and operate sediment diversions to reconnect the Mississippi River to nearby wetlands to deliver fresh water, sediment, and nutrients. These projects will create a sustainable, productive delta and build and maintain tens of thousands of acres of wetlands that protect communities from storm surge and sea level rise, provide fish and wildlife habitat, and support a working coast.

Sediment diversions will be operated using **Adaptive Management (AM)**, which will help project managers achieve project goals while iterating over time as they collect data on changing conditions. Adaptive management is similar to perfecting a recipe - it starts with planning, putting the plan into action, gathering feedback, and then making adjustments to improve results. At the end of this process, we are left with a bountiful delta and a delicious gumbo to pass along to future generations.



PLANNING

This phase involves assessing what is needed and designing the projects to achieve success.

When making a delicious gumbo, we start with a basic family recipe that includes ingredients, steps, and notes on what to look for when cooking.

When it comes to sediment diversions, this involves decision-makers planning how to build a beautiful delta.

DOING

This phase is about putting our plans into motion and monitoring changes to track project outcomes.

- INGREDIENTS
- COLOR
- CONSISTENCY
- FLAVOR

Next, we make groceries, cook up our gumbo, and do some taste testing along the way.

- SEDIMENT
- LAND BUILDING
- VEGETATION
- WILDLIFE & FISHERIES
- SALINITY
- WATER LEVELS

This involves building and operating diversions and monitoring their effects along the way.

LEARNING

This phase involves evaluating results and making adjustments as needed.

For our chef, learning means serving to friends and family and collecting feedback to improve the recipe over time.

Managers apply new information from monitoring to adjust operations over time to achieve the best results.

Adaptive Management Brings People Into the Process

Building a sustainable delta takes careful planning and strategic operations, but coastal managers and scientists have a lot of tools at their disposal. AM will ensure they achieve diversions' primary goal of land building, while also considering factors important to the communities, wildlife, and industries of the delta. This approach brings people into the process, providing you with access to information and opportunities to engage.

To learn more about AM, visit our website and join our email list for updates and how to get involved: <http://mississippiriverdelta.org/adaptivemanagement>



Acknowledgements: © EDF 2022. We would like to thank the participants of the SEAM Working Group as well as Marc Nelitz, Clint Alexander, Natascia Tamburello, and Vivian Lam ESSA Technologies Ltd. for their contributions to this work. Infographic by Natascia Tamburello with support from Vivian Lam.