

# **Coastal Louisiana communities have valuable insights on priorities to offer restoration planning**

## *Restoring ecosystems to help communities outside the levee system*

Apr 18, 2017 – Oysters reefs provide protection for coastal lands, help keep the water clean, and oysters are darn good when charbroiled. All true, and all part of what makes coastal Louisiana so valuable to its residents and why ecosystem restoration remains a valued part of coastal community life, according to a new report from The Water Institute of the Gulf.

Bridging scientific working groups with community input, the “Building community and coastal resilience to a changing Louisiana coastline through restoration of key ecosystem functions,” looks at how local knowledge and values can be used to shape ecosystem restoration investments.

“Ecosystem based restoration approaches can support a range of ecosystem functions, such as reducing waves or providing nursery habitat for fish, these translate into a range of protection, social and economic benefits to communities,” said Tim Carruthers, lead author of the report and Director of Coastal Ecology at the Institute. “Community resilience in coastal Louisiana depends on social, cultural, and economic wellbeing which is closely linked to maintaining or restoring intact and productive coastal habitats.”

As part of the study, researchers first convened workshops with social scientists and ecosystem researchers in late 2015 to help quantify the value of seven coastal habitat types in terms of the ecological function they provide. These functions included flood protection as well as estimating the value these habitats have for local communities including things like economic worth, cultural identity, and employment.

This science-focused meeting was followed up by four community meetings and mapping workshops in the spring of 2016 in Delcambre (Iberia/Vermillion parishes) and St. Bernard (St. Bernard Parish.)

“Many coastal residents feel that their local knowledge is not accounted for in the coastal restoration planning process,” said Scott Hemmerling, Director of Human Dimensions at the Institute, “We wanted to find a way to not only listen to residents of coastal communities, but find a way to capture their knowledge in a quantitative way to show how it could be incorporated into restoration planning.”

In addition to small group meetings, the researchers set up mapping tables at the Delcambre Seafood and Farmer’s Market and the Sippin’ on the Bayou Festival in St. Bernard. During these event, researchers asked residents to identify places of value and those places that were currently at risk from a number of factors including land loss or storm damage.

“Years and years ago this was a cypress freshwater swamp. Then they came in and dug the channel (Mississippi River Gulf Outlet), letting all the saltwater in, saltwater that killed all the cypress and oak trees. The whole system changed from forested

wetlands to a brackish marsh,” said one St. Bernard workshop participant.

The top five places of concern in Delcambre were the local bayous and canals, area schools, Vermilion Bay, Town and Port of Delcambre, and Avery and Jefferson islands. Despite the fact that most residents live nine to 20 miles from the coast itself, people in Delcambre said marsh restoration and methods of stabilizing the shoreline were a key in protecting their community’s future.

In St. Bernard, the top concerns were the fishing villages, deterioration in Breton and Chandeleur sounds, Caernarvon, Lake Lery and Big Mar, the Mississippi River Gulf Outlet channel, and Bayou La Loutre and Bayou Terre Aux Boeufs where many residents encouraged rebuilding of the ridges along these waterways. Previous and future projects that involved strategic and controlled marsh restoration was something most residents valued.

The community input helped researchers develop a “value-threat” matrix to map areas in each community seen by residents as high value, high threat, and a combined high value and high threat.

“Integrating formal scientific and traditional ecological knowledge can assist in developing a common understanding of threats, values and restoration opportunities in Louisiana’s rapidly changing coastal ecosystem,” said Carruthers. “The approach taken in this work can be used to build community and coastal resilience and sustainability through integrating formal scientific knowledge and community ecological knowledge into the prioritization process for restoring key ecosystem functions.”

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The full report is available [here](#).

## **About The Water Institute of the Gulf**

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