

# Environmentalists skeptical of Ike Dike

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GALVESTON - Plans for building a massive storm-surge protection system for the Houston area are rushing ahead before officials determine whether the project could harm Galveston Bay, environmental groups say.

The Sierra Club and the Galveston Bay Foundation, the environmental groups most closely watching the planning process, worry that there's been too much focus on how to build the so-called Ike Dike and not enough on its impact on the bay.

"The Ike Dike has gained traction and local government support," said Scott Jones, spokesman for the Galveston Bay Foundation. "We understand that, but we don't think the environmental questions have been answered."

Brandt Mannchen, spokesman for the Sierra Club's Houston Regional Group, agreed. "We really need to look at the environmental impacts and, from our standpoint, should have looked at them first. We are kind of doing this backward."

## Potential harm cited

Various parts of the project could potentially harm marine life in the bay or on the beaches, they warn.

The details of what an Ike Dike would look like have yet to be worked out, but the six-county agency and two universities involved in planning support the idea of a coastal barrier with a storm gate at the entrance to the Houston Ship Channel between Galveston Island and the Bolivar Peninsula.

Rice University's Severe Storm Prediction Education and Evacuation from Disasters Center also has designed a secondary defense system of gates and levees that would be built inside the bay, with another gate at the entrance to Clear Lake.

That group and two others - the Gulf Coast Community Protection and Recovery District and Texas A&M University Galveston's Center for Texas Beaches and Shores - are all conducting studies to determine how the Ike Dike would affect the environment. Texas A&M researchers say environmental studies should be part of the planning process going forward, not done after a plan is devised.

The Army Corps of Engineers is devising a storm-surge protection plan for the entire Texas coast that will be subject to an environmental impact study.

Most of the studies are unlikely to be completed before the end of 2017.

The groups are concerned that political momentum for the existing proposal may be so strong by then that the study results will have little influence.

"Maybe the Ike Dike is the best thing since Wonder Bread, but right now we don't know because we haven't looked at it," Mannchen said.

He said the barrier could impede the natural processes that form barrier islands and nourish the saltwater and freshwater marshes that are nurseries for shrimp and fish. He questioned the idea of protecting low-lying barrier islands like Galveston and the Bolivar Peninsula in the first place. (The Bolivar Peninsula is considered a barrier island although it is not a true island.)

"Nobody wants to say this phrase, but let the Sierra Club be the first to say it: planned withdrawal," Mannchen said.

Better to build a dike around the part of Galveston behind the seawall and petrochemical complexes, and gradually abandon the rest of the island, the Bolivar Peninsula and vulnerable areas along Galveston Bay, he said.

### **Withdrawal unpopular**

A 2011 report by Rice University's Shell Center for Sustainability recommended planned withdrawal for Galveston Island, arguing that a structure like the Ike Dike was impractical if rising sea levels were taken into account. The report was greeted with little enthusiasm and was soon forgotten. Building on the island's western, unprotected areas continued apace.

Jones, the Galveston Bay Foundation's spokesman, worried about how the surge gate between Galveston Island and the Bolivar Peninsula would affect the movement of fish, dolphins, shrimp and other marine creatures between the bay and the Gulf of Mexico.

"We don't want any type of storm-surge protection for the bay to have unintended consequences," Jones said.

Bill Merrell, the Texas A&M professor who originated the Ike Dike concept, agreed that environmental studies need to be done but believes the coastal barrier can be designed to be environmentally friendly.

"I don't think the Ike Dike would harm Galveston Bay," Merrell said. He pointed to similar structures built in the Netherlands that were compatible with the country's environment. "I

think the Dutch experience shows that we can design gates that don't harm the environment, but we have to prove it," Merrell said.

### **Worried about effects**

Merrell said the Sierra Club's planned withdrawal idea was impractical. "There is too much investment in the infrastructure we have on the coast," he said. "We're going to have to learn how to live with the situation."

The possible effect on salinity is a concern for Lisa Halili, whose family owns Prestige Oysters, the largest oyster company on Galveston Bay. She worries about unintended consequences of storm-surge protection structures on oyster beds in the bay. As an example of what could happen, she points to the blocking of the Mississippi River-Gulf Outlet in Louisiana, which she says is restricting water flow and consequently damaging oyster reefs.

"It's hurting our leases badly," she said.

Although a storm gate will remain open during normal weather to allow traffic through the ship channel, the structure will block some of the natural flow, Jones said. A narrower channel means water will be pushed through faster. "Even if the gates are open, it's still going to have all that structure," he said. "It's going to increase velocities through the pass."

The question is how that's going to affect marine life and the salinity levels in the bay that affect oysters and fish, he said.

"Will they physically be injured or killed going through that? Will that change their ability to get in and out of the pass? That's a huge question we have to answer."

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