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## New restoration project underway at Bahia Grande

By Mel Huff  
The Brownsville Herald

Dressed in red polo shirts, a line of third- and fifth-grade students stooped over a row of holes Thursday morning along the shore of Bahia Grande. Each held a potted seedling.

"Break away the peat pot and put dirt around it," Ralph Hacker told the Episcopal Day School students, demonstrating how to plant them.

As they planted the trees they had raised from seeds, the students inaugurated the largest wetland reclamation project in the United States.



The Bahia Grande is an 11,000-acre basin off Highway 48 west of the Brownsville Ship Channel. It was once connected to the Laguna Madre, but dried out after the Brownsville Ship Channel was built in the 1930s. That and the construction of Highway 48 cut off the flow of water from the Gulf of Mexico to the Bahia Grande.

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The restoration project calls for the construction of five new channels, ranging in length from 2,000 feet to 8,250 feet. The channels will be 2 to 4 feet deep and 50 to 60 feet wide.

One will connect the Bahia Grande basin with San Martin Lake, which in turn connects to the Brownsville Ship Channel — allowing water to flow into the Bahia Grande. The basin currently holds some water as the result of spring rains.

Other channels will connect the Bahia Grande and Laguna Larga basins, the Bahia Grande and Little Laguna Madre basins, and the Laguna Larga and Little Laguna Madre basins. Another channel will provide a direct connection between the Bahia Grande and the Brownsville Ship Channel.

Local U.S. Fish and Wildlife staff will construct the channels using rented equipment. The project partners expect water to start flowing by the end of the year.

Shrimp, crabs, fish and birds once thrived in more than 10,000 acres of wetlands that are part of the Redhead Ridge Tract in the Laguna Atascosa National Wildlife Refuge, which includes the Bahia Grande.

"I've lived in Port Isabel since 1960, and I can remember when it was all flooded," said Harley Londrie, who runs a fleet of 23 offshore shrimp trawlers for Zimco Marine Inc. "We used to put nets over the culverts (on Highway 48). You could catch anything you wanted."

Marco Sales, a Brownsville-based seafood company, organized the labor to build an on-site nursery that will grow black mangrove trees. Hacker, who works for the company, is the project engineer.

Steve Labuda, manager of Laguna Atascosa National Wildlife Refuge, said a graduate student from the civil engineering department of Texas A&M University built a model to determine rates of flow and areas of inundation based on different channel configurations.



The project has been preceded by three years of planning and collaboration among government agencies, conservation groups, university consultants and shrimpers.

In 1998, the U.S. Fish and Wildlife Service, the Nature Conservancy and The Conservation Fund started buying land in the Bahia Grande. Then archeological surveys had to be conducted, environmental studies completed and permits obtained.

Planting mangroves — the first step in the restoration process — is crucial to the wetland's communities of plants and animals.

"Mangrove occurs naturally and will spread throughout the Bahia once it's introduced," said Thor Lassen of Ocean Trust, which is financing part of the restoration project. "Planting jump-starts the repopulation of plants."

Mangroves can tolerate salt water. Their partly submerged tangle of roots filters and purifies the water and provides shelter for small fish. They also hold and build soil.

"(The Bahia Grande is) a shallow body of water, and every time the wind blows, it stirs up the silt on the bottom," said Les Hodgson, co-owner of Marco Sales — a Brownsville seafood processing company. "We can't get vegetation growing as long as the sediment's stirred up. So you start by stabilizing the banks and then you work into the center of it."

Planting sea grasses will come next.

Eventually, Hodgson hopes, the Bahia Grande will become a healthy body of water. Labuda believes it will. "Someday people will be kayaking out here and birding," he said.