

US Fish & Wildlife Service Coastal Program

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National Wildlife Refuge System

June 25, 2019



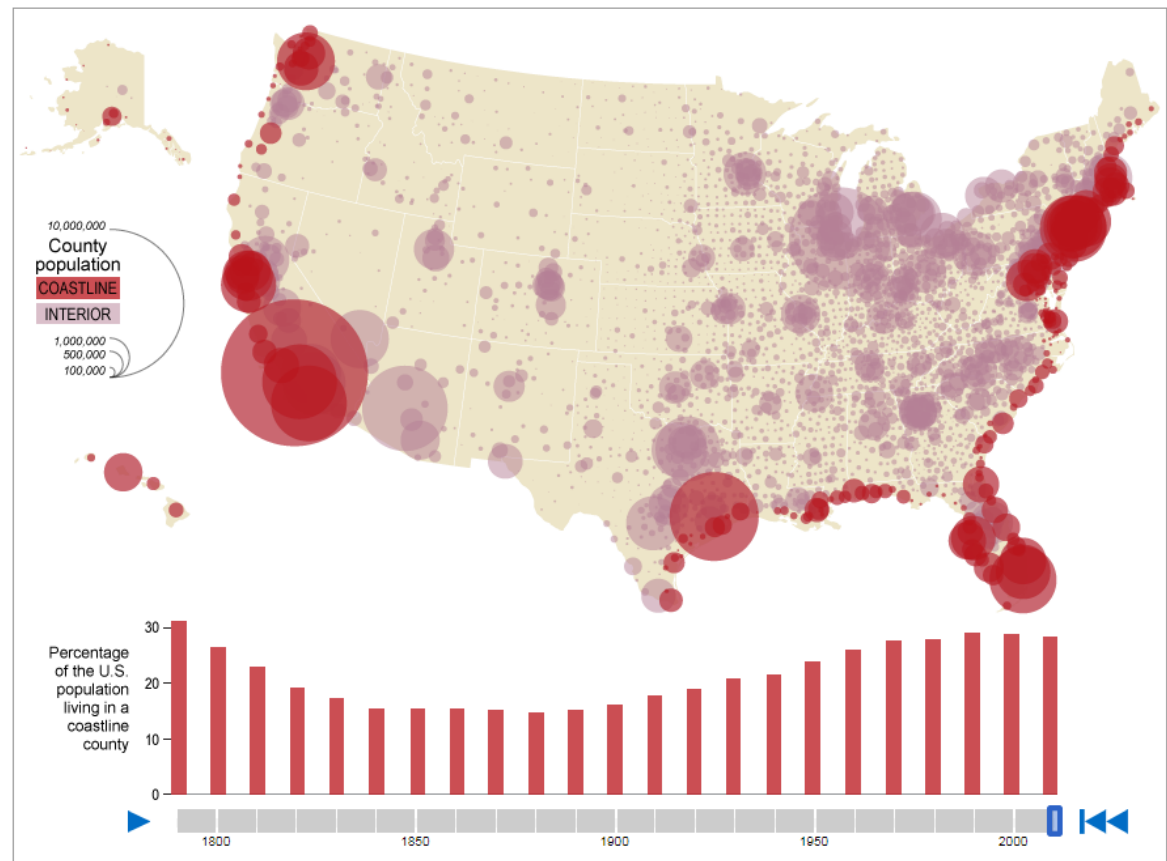
Why we Work



- The ocean economy's contribution to GDP grew by 5.7%, 2x as fast as the US economy as a whole
- Coastal tourism and recreation contributed \$116 B to the US GDP

Coastline County Population

September 6, 2012



*Based on 2015 data - NOAA, 2018 report

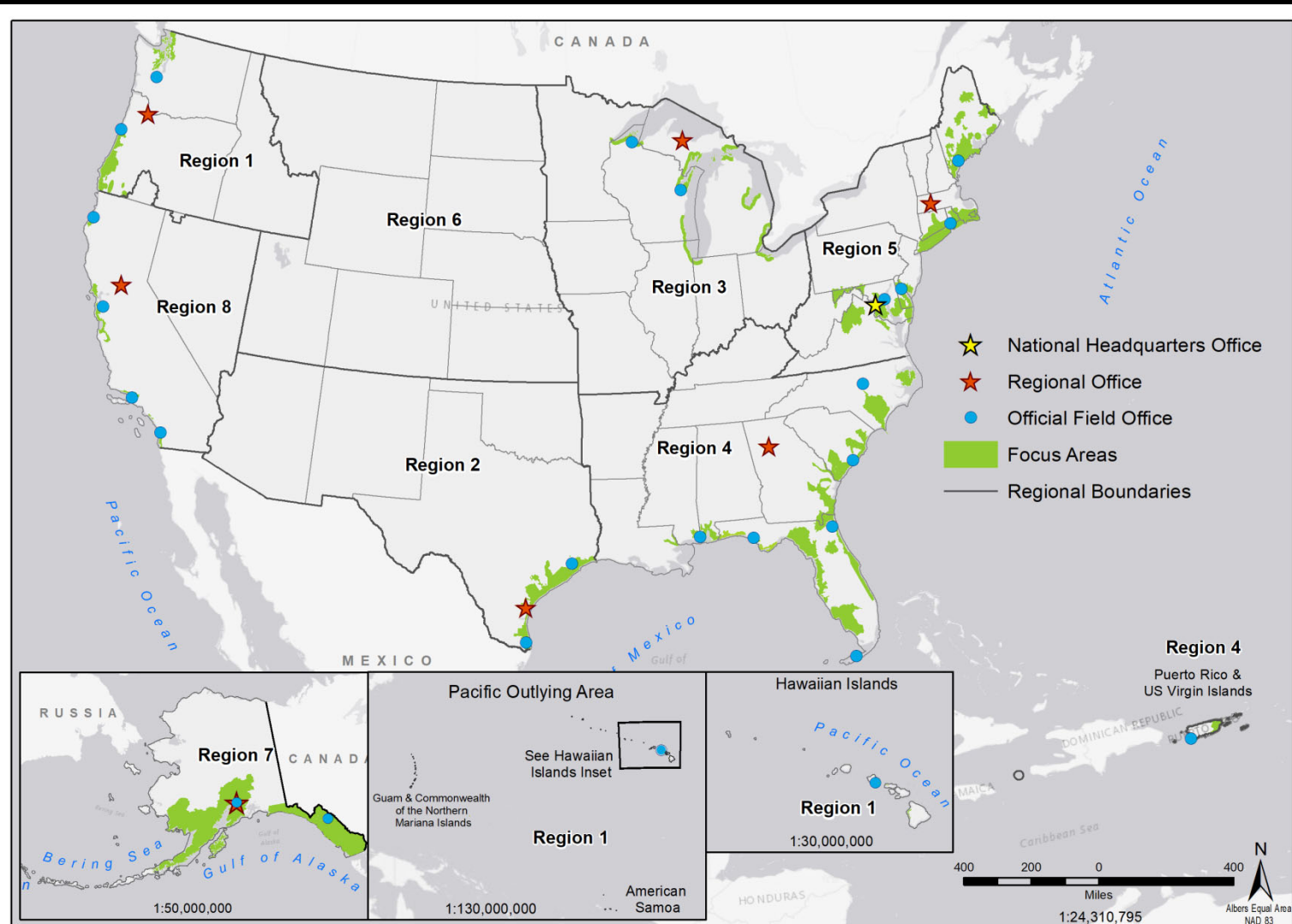
Why we Work



- US Great Lakes & coastal habitats support:
 - 40% of the USFWS National Wildlife Refuges
 - 85% of waterfowl and other migratory birds
- Overlap with all the major migratory bird flyways
- Are home to 45% of the federally listed threatened and endangered species



Where we Work



How we Work



Value of Green Infrastructure



- During Hurricane Sandy in 2012, coastal wetlands prevented more than US \$625 million in direct property damages by buffering coasts against its storm surge

- Lloyds of London Study, 2017



Science News from research organizations

Nature-based solutions can prevent \$50 billion in Gulf Coast flood damages

Study finds restoration of marshes and oyster reefs are among the most cost-effective solutions for flood risk reduction on the US Gulf Coast

Date: April 12, 2018
Source: University of California - Santa Cruz

Summary: While coastal development and climate change are increasing the risk of flooding for communities along the US Gulf Coast, restoration of marshes and oyster reefs are among the most cost-effective solutions for reducing those risks, according to a new study.

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Earth & Climate

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- > Environmental Awareness
- > Environmental Policy



Artificial oyster reefs along the US Gulf Coast are designed to



A Story from the Salt Bayou



Largest Contiguous Wetland in TX



Background



Sabine-Neches Ship Channel
Improvement Project



Liquefied Natural Gas
Facility

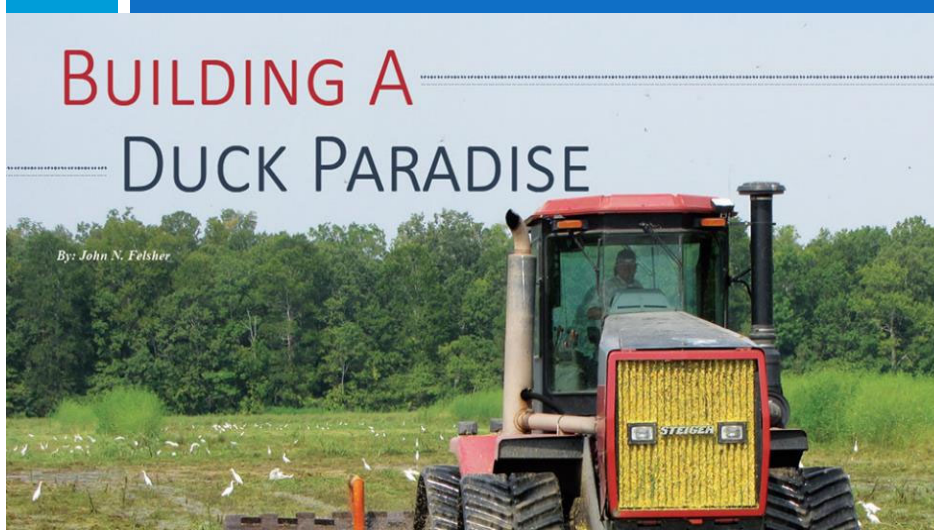


State Highway 87

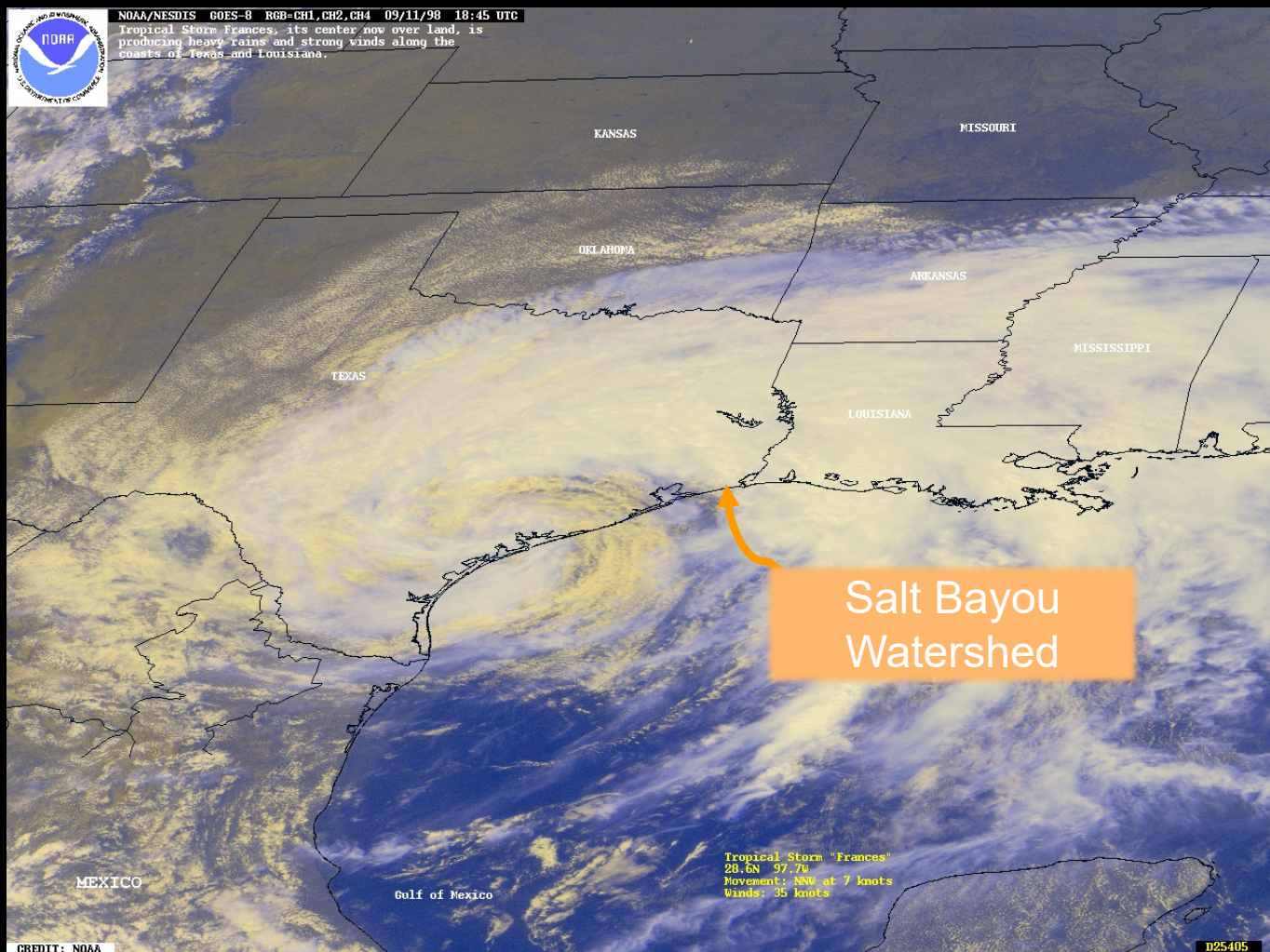


Gulf Intracoastal Waterway

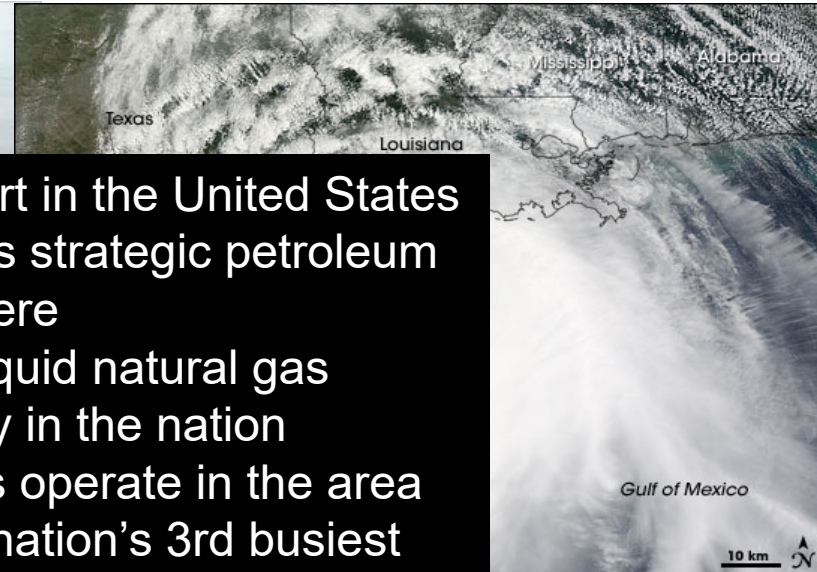
Shared Purpose



Tropical Storm Francis: 1998



Hurricane Ike: 2008



- Busiest military port in the United States
- 60% of the nation's strategic petroleum reserve offloads here
- No.1 exporter of liquid natural gas
- Largest oil refinery in the nation
- 30 chemical plants operate in the area
- The GIWW is the nation's 3rd busiest inland waterway, with the Texas portion handling 63 % of its traffic





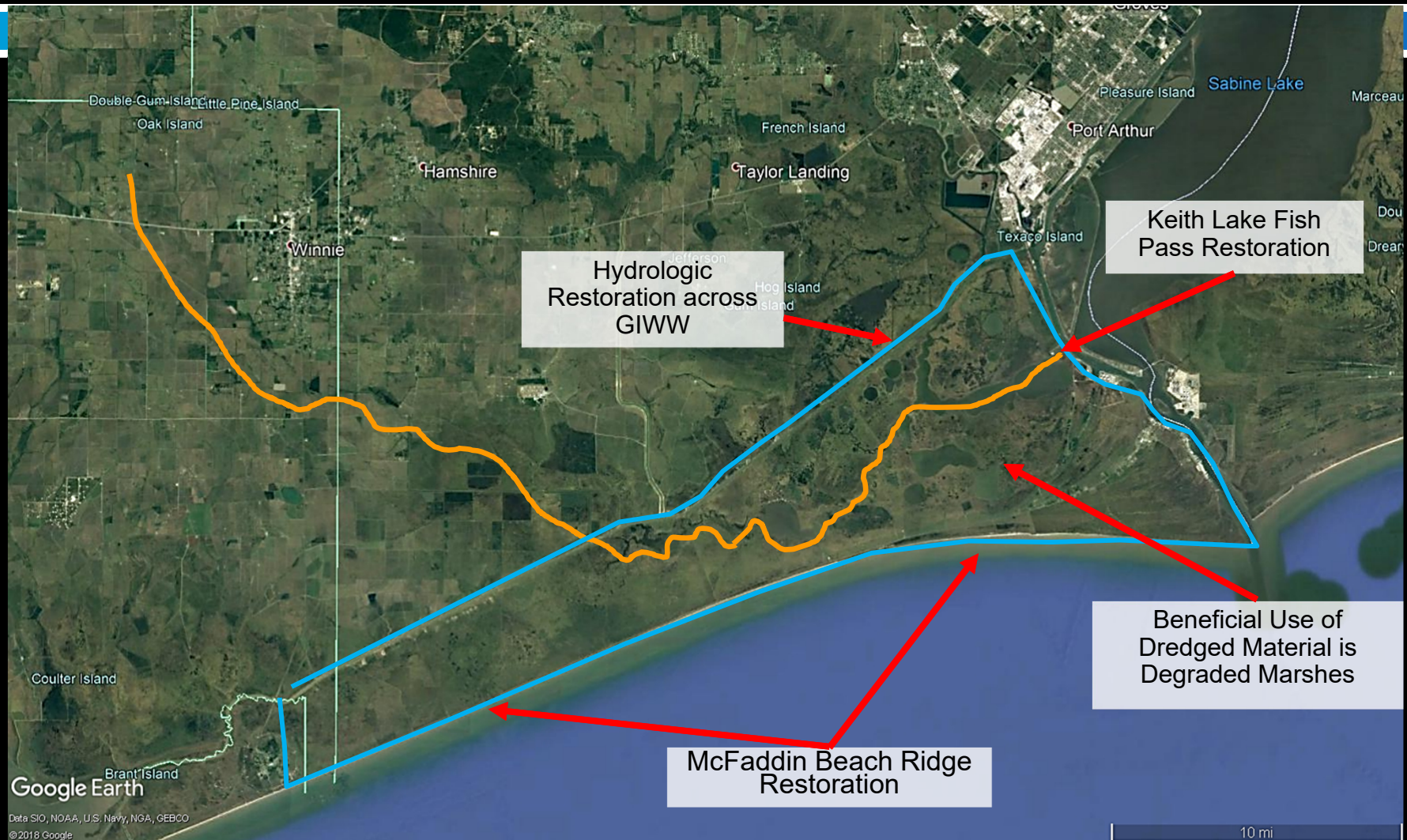
SALT BAYOU WATERSHED RESTORATION PLAN



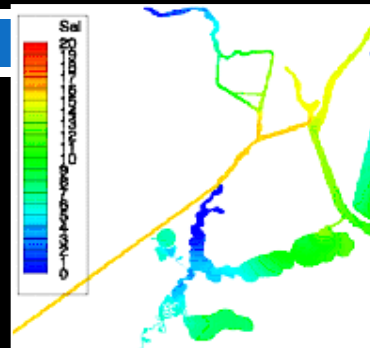
Prepared by:
Salt Bayou Marsh Workgroup

May 2013

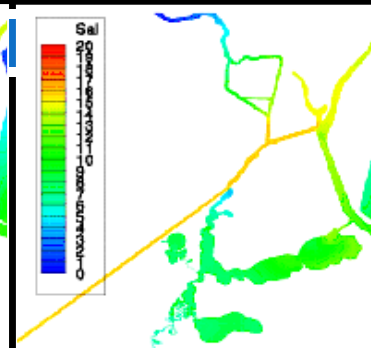
4 Elements



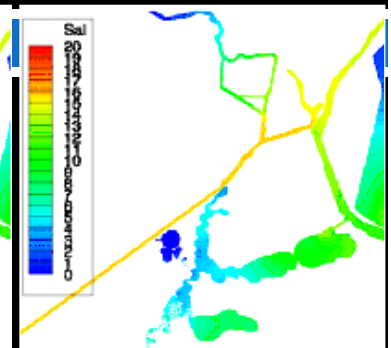
Progress!



Magnolia Cut
Siphon



No Siphons



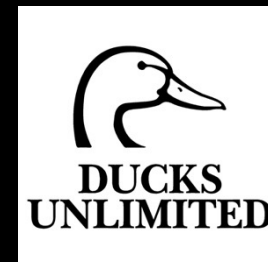
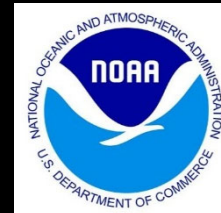
Oil Field Cut
Siphon



Partnerships

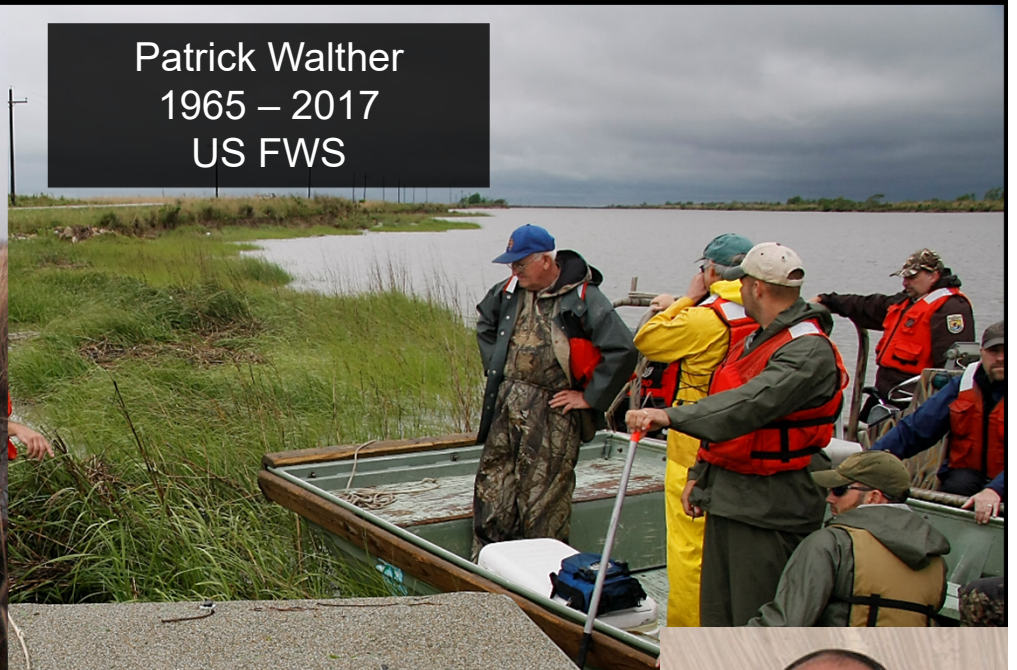


- Texas General Land Office
- Texas Parks and Wildlife Department
- Texas Water Development Board
- Texas Commission on Environmental Quality
- Gulf RESTORE Council
- Jefferson County
- Jefferson County Drainage District #6
- NOAA
- USFWS
- USACE
- Ducks Unlimited
- National Fish and Wildlife Foundation
- Private Landowners
- ...and more





Jim Sutherlin
1952 – 2018
TX P&W



Patrick Walther
1965 – 2017
US FWS



"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has." M. Mead





Nature's Good Neighbors

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No Jimmy Buffett here

Salt Bayou home to business, conservation

By Samantha Brooke | July 11, 2018



WOODY WOODROW

 @CoastalProgram

Website: <https://www.fws.gov/coastal>