

WEDA Dredging Summit & Expo 2015

Infrastructure Opportunities in Coastal Texas

23 June 2015

COL Richard P. Pannell
District Commander, Galveston District
U.S. Army Corps of Engineers



US Army Corps of Engineers
BUILDING STRONG





Transforming Civil Works

USACE Vision

Engineering solutions for the Nation's toughest challenges.

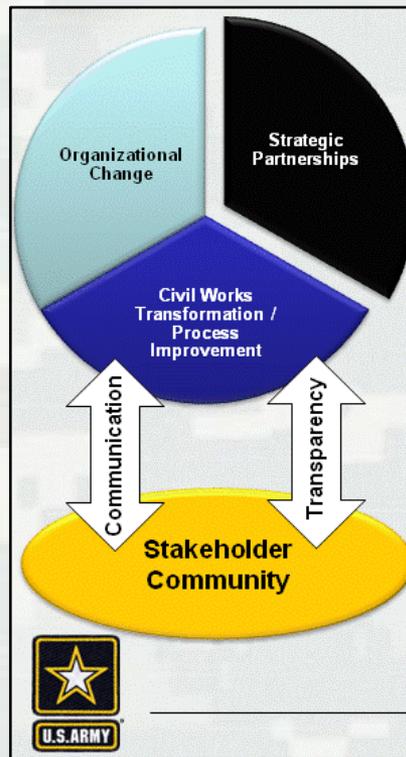
USACE Mission

Deliver vital engineering solutions, in collaboration with our partners, to secure our Nation, energize our economy, and reduce risk from disaster.

The Galveston District is transforming our Civil Works program to keep pace with growth & opportunity along the Texas Coast

National Water Resources Challenges

- Increasing Demand for Water
- Climate Change
- Governance Federal Budget Legislative Changes
- Demographic Shifts
- Aging Infrastructure
- Energy
- Persistent Conflict
- Declining Biodiversity
- Disaster Preparedness and Response
- Globalization
- Environmental Values



6/18/2015

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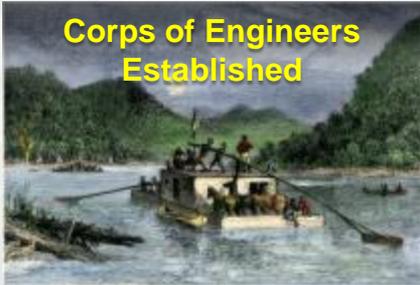


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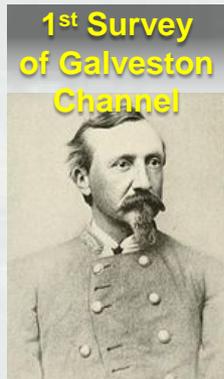


History of USACE in Coastal Texas

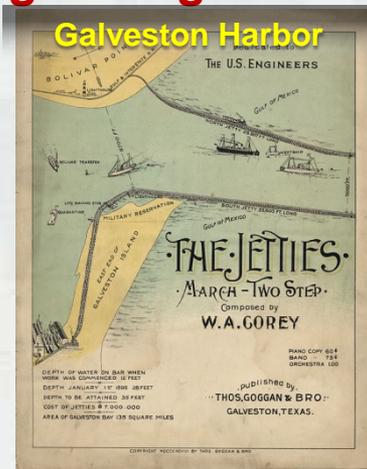
Building Strong for over 240 years



Corps of Engineers Established



1st Survey of Galveston Channel



Galveston Harbor

1897



Houston Ship Channel

1914



ARRA Funding

2008

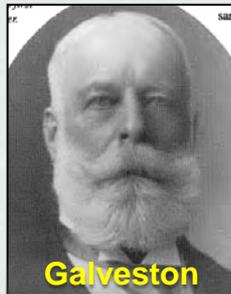


1845



Texas Statehood

1880



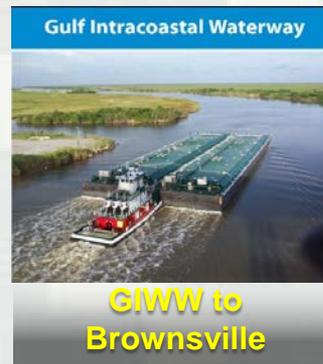
Galveston District Established

1912



Sabine Neches Waterway

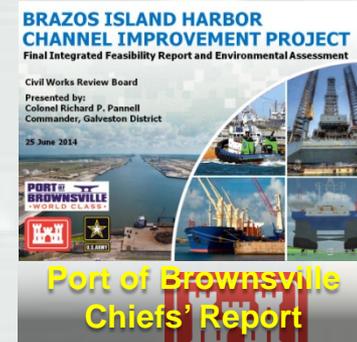
1949



Gulf Intracoastal Waterway

GIWW to Brownsville

2014



BRAZOS ISLAND HARBOR CHANNEL IMPROVEMENT PROJECT

Port of Brownsville Chiefs' Report



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Vision & Strategy for Texas Coast

Future of the Texas Coast

Shared Visioning for the Texas coast:

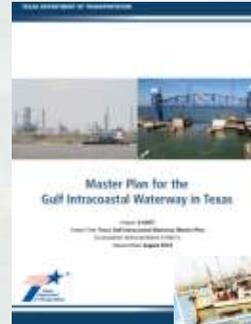
- The navigation system (Deep Draft Ports / Shallow Draft Ports / GIWW) is positioned for sustainable **economic growth** and Texas ports continue to drive the regional and national economic engine.
- The Texas Coast environment is protected from coastal erosion & storm surge; **ecologic health** and **community resiliency** are improved;
- USACE has strong **strategic partnerships** within the Texas Coastal Stakeholder community that support Federal and non-Federal investment in the system's infrastructure



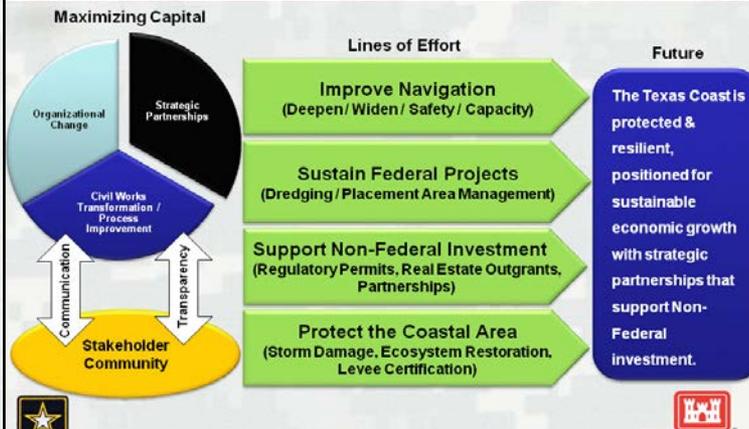
Future

The Texas Coast is protected & resilient, positioned for sustainable economic growth with strategic partnerships that support non-Federal investment.

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Texas Coast Strategy



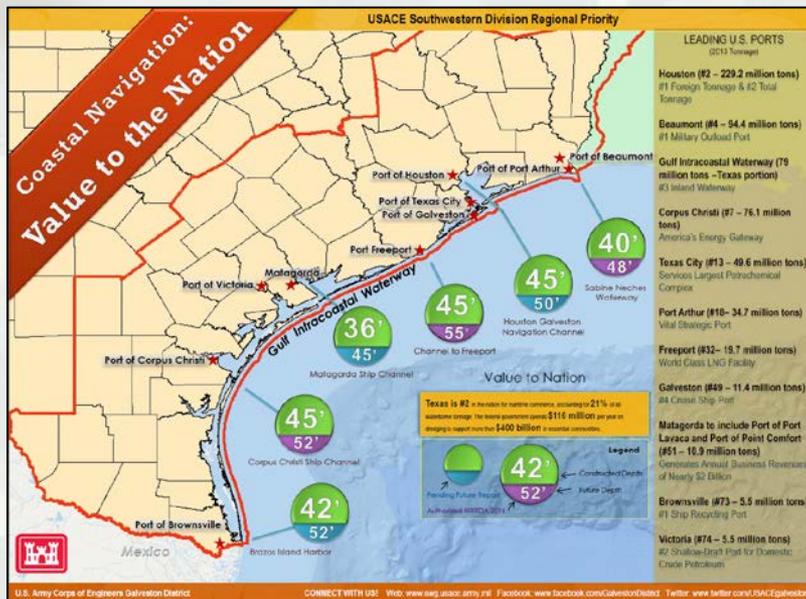
Working with state & local partners, the Galveston District supports a shared vision for the future of the Texas Coast



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Infrastructure Improvement



➤ TX energy & petro-chemical industry are driving the national economy

➤ Vulnerabilities & risks are greater than ever

Opportunities

Lines of Effort

- Improve Navigation**
 (Deepen / Widen / Safety / Capacity)
- Sustain Federal Projects**
 (Dredging / Placement Area Management)
- Support non-Federal Investment**
 (Contributed Funds, Regulatory Outreach, Real Estate Outgrants, Partnerships)
- Protect the Coastal Zone**
 (Storm Damage, Ecosystem Restoration, Regulatory Program)

Related Projects

- Sabine Neches Waterway Design
- Houston Ship Channel Study
- Bayport Ship Channel Flare (HSC)
- Freeport Channel Design
- Matagorda Ship Channel
- Corpus Christi Improvement
- Brownsville Ship Channel Authorization
- GIWW Improvements



- \$32M O&M Program for FY16
- ~20+ Dredging & PA Management Contracts/year
- Updated Dredged Material Management Plan

- Bayport/Barbours Deepening
- Freeport Improvements under Section 408
- Brownsville Ship Channel
- Contributed Funds Agreements
- 3rd Party use of Federal Placement Areas

- Coastal Texas Study
- Sabine Pass to Galveston Bay Feasibility Study
- Jefferson County Ecosystem Restoration Study
- Beneficial Use of Dredged Material




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Ideal Conditions





District Initiatives

Innovative Tools & Thinking

- Regional Sediment Management
- Dredged Material Optimization
- Engineering With Nature
- GIS Visualization
- Acquisition Tools

Status	Contract Delivery	Location	Project Name
✓	W91260-13-C-0033 NA	Houston Ship Channel	Barbours Cut Terminal, Houston
✓	W91260-13-C-0030 NA	South Padre Island / Fort Isabel	FX13 Brownsville Ship Ch. Id.
✓	W91260-13-C-0031 NA	Brazoria County, Texas	Freeport Entrance and Jetty C
✓	W91260-13-C-0041 NA		Galveston Harbor Mopper Dred
✓	W91260-13-C-0042 NA	Port Arthur, Texas	ShoW, Neches River Channel
✓	W91260-13-C-0047 NA	CDNR, High Island to Port Belvoir	CDNR - High Island to Belvoir
✓	W91260-13-C-0099 NA	Freeport Harbor, TX	Freeport Harbor, Inner Channel

USACE Regional Sediment Management (RSM)

Regional Sediment Management is...

Galveston Entrance Channel RSM



- Manage sediments and projects through a systems based approach
- Manage sediment resources as regional resources
- Link across multiple projects, programs, authorities, and business lines
- Improve operational efficiencies through adaptive management
- Support sustainable solutions: Navigation, Flood Risk Management, Environmental Restoration missions

- Challenge to maintain management
- ID solutions: reduce sediment
- ID opportunities to improve management

Partners: Galveston, Texas Co...



Lessons Learned from Coastal Beneficial Use Features in Galveston Bay and Application to Engineering With Nature (EWN)

Georganna B. Collins
 Edmond J. Russo, Jr., PhD, PE, D.CE, D.NE, D.WRE
 Todd S. Bridges, PhD

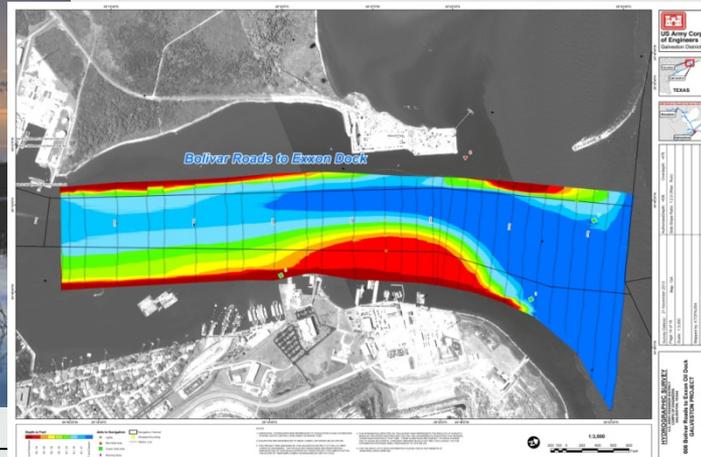
1:45-2:15 pm, Tuesday, June 23, 2015



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