

Full Committee Meeting 23 July, 2020





Martin Midstream WSA



Education, Research and Workforce Development Subcommittee Report





Center for Advances in Port Management

LAMAR UNIVERSITY

EDUCATION, RESEARCH AND WORKFORCE DEVELOPMENT SUBCOMMITTEE SETWAC FULL MEETING, JULY 23 AGENDA:

- Education
 - Hurricane Planning in Pandemic Webinar, June 18
 - 2020 Continuing Education and Certifications
- Workforce Development
- Research--Lamar University Research Centers

SE TEXAS WATERWAYS ADVISORY COUNCIL

MEMBER THE TEXAS STATE UNIVERSITY SYSTEM™

EDUCATION: 2020 WEBINARS

- HURRICANE PLANNING IN A PANDEMIC WEBINAR, JUNE 18
 - Agenda and video recording on SETWAC.org and lamar.edu/portmanagement
 - Speakers from NWS Lake Charles, Texas Division of Emergency Management, City of Beaumont Police Dept, Emergency Management City of Beaumont and Jefferson County, Entergy, MSU Port Arthur VTS, Sabine Pilots, USACE, TXDOT.
 - Key takeaways:
 - Active 2020 hurricane season—accurate forecasts and early response critical
 - Best to avoid congregant evacuation centers
 - Constant mindfulness of cyber security risks
- **POTENTIAL FUTURE WEBINARS**: Cyber Security, Floodplain Resiliency, Port and Terminal Digital Technologies, Conflict Resolution and Negotiating Strategies, Managing Critical Assets (to achieve improved, cost-effective performance), Risk-based Decision-making, Workforce Development,?
- Subcommittee Role: Identify topics, develop and deliver webinars



EDUCATION: INDUSTRY CERTIFICATIONS

- Four-course CAPM certificates:
 - Ports, Trade and Global Logistics;
 - Port and Marine Terminal Capital Planning and Development;
 - Port and Marine Terminal Management and Operations.
- CAPM Planned:
 - Strategic Asset Management
 - Freight-based Economic Development
 - Risk Management
 - Cyber Security
- Midstream Center Planned: Midstream Management
- AAPA
 - IRPC and Cyber Security Certificates (https://www.aapa-ports.org/unifying/content.aspx?ltemNumber=20920)
- **Subcommittee Role**: Identify useful industry relevant certifications, develop content.



LAMAR UNIVERSITY RESEARCH CENTERS

- Center for Port Management:
 - 2017-2020 CAPM-funded research: see lamar.edu/portmanagement
 - Related Professional Committees:
 - ASCE COPRI Asset Management Committee, Stromberg, Chair
 - TRB Ports and Channels Subcommittee on Port and Terminal Digitalization, Stromberg, Chair
- Center for Commercialization, Innovation and Entrepreneurship (CICE): Paul Latiolais,
 Director
 - Hurricane Economic Recovery and Resiliency Program (HERRP)
- Center for Midstream Management and Science, Tom Kalb, Director
- Development of a Center for Flood Resiliency and the Southeast Texas Flood
 Coordination Study--Ports Connection (SETx FCS Ports): Dr. Liv Haselbach, Chair, Civil and
 Environmental Engineering
- **Subcommittee Role:** Identify industry relevant research, review proposals, serve as advisors on specific projects.





Workforce Development Report

WORKFORCE DEVELOPMENT Sade Chick, Port of Beaumont

- How do we facilitate a stronger workforce, including training, curriculum for middle school and high school students, and continuing education for working professionals?
- BISD Maritime Program—Curriculum and Speaker Support. Expand beyond BISD.
- State-wide and national alignment (AAPA, DOL, LSHSC and other Texas port regions)
- Texas Governor's Office—gain support for maritime as preferred industry cluster
- List of apprenticeships/internships—SETWAC website?
- Subcommittee Role: Identify, plan and implement workforce initiatives.





Flood Control



VISION

To develop Southeast Texas (SETexas) as a prototype for regional flood mitigation and response, with potential to expand the model state-wide.

MISSION Develop a funded research, agency and industry group which will:

- ✓ Facilitate flood mitigation and sensoring technologies in SETexas,
- ✓ Collect data and coordinate with local, state and national stakeholders for stormwater modeling and decision making in <u>SETexas</u> which is in support of the State Flood Plan,
- ✓ Work with SETexas for emergency response and facilitate an enactment exercise.
- ✓ Prepare a maintenance plan for a SETexas Flood Coordination Group.

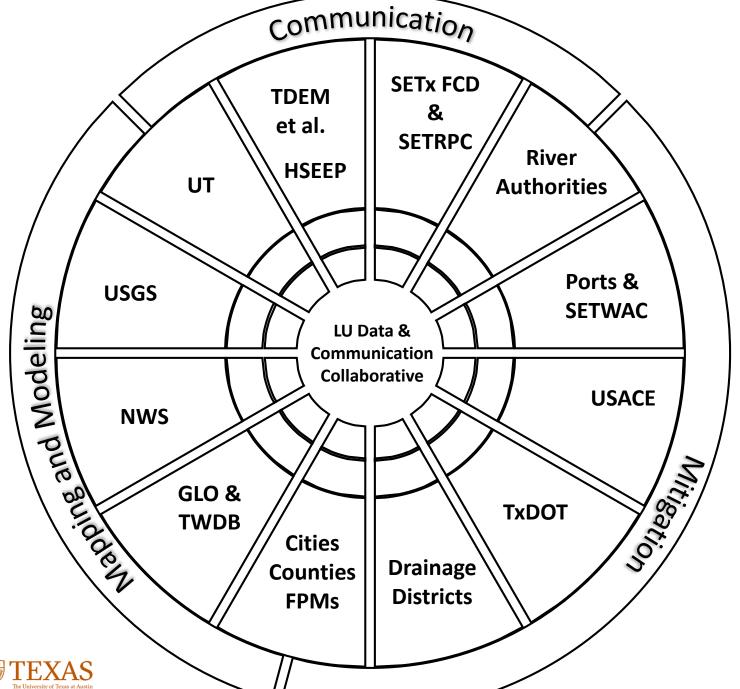
FIRST STEPS

- Seek from agencies and interested parties what is needed and what might be funded.
 (GLO, TWDB, USACE, TDPS, industry, drainage districts, river authorities, TxDOT, TDEM, etc.)
- Formulate a GIS database for <u>SETexas</u> to support studies of the interaction of the streamflow and the transportation networks and other development and industry, in coordination with national efforts such as from FEMA, USGS, NWC, NOAA, etc. on mapping, flood prediction, inundation and response.
- Expand the database with data to support hydrological modeling, integration with emergency respond needs, and decision making in targeted flood mitigation strategies.

Draft 17 July 2020 12



PARTICIPANTS





SETWAC Collaboration_ Data and Knowledge sharing

The SETxFCS's Lamar University Infrastructure Team.

Lamar Group Leaders

SETxFCS Project Management and Participant Liaisoning: Liv Haselbach <u>lhaselbach@lamar.edu</u>

SETxFCS Community Data: *Nicholas Brake* (technical/flood/gage)

and Natalie Tindall (communication/civic/response)

SETxFCS Environmental/Water: Thinesh Selvaratnam (industry/point source) tselvaratnam@lamar.edu

and *Qin Qian* (nonpoint source, river, ports)

SETxFCS GIS and Story Map: Xing Wu

Monthly Meetings Provide Communication (Next is August 12th at noon via adobeconnect. Contact Liv to get on email invite list.)

Some up and coming projects/discussions that you can be involved with:

- Collecting historical highwater marks: Provide data to Dr.s Brake or Wu
- Effort to put staff gauges on light poles and other permanent fixtures for real time water levels
- Input from the drainage districts and GLO on future projects (note that some might have water diverted to the waterways!)
- Surveys to gather more communication/infrastructure information (see next slide)

SETWAC Collaboration_ Data and Knowledge sharing survey

- We are seeking your information and feedback to help us coordinate our future endeavors more efficiently, and plan for, design for, respond to and recover from future flooding events.
- Summary of questions we might start with
 - Basic Information
 - Contact info Company/Agency Liaison officer (if any)
 - Critical Watershed Locations, Gauge/Sensors, Roadway Infrastructure
 - Maps: maps and/or mapping services that your company currently uses, topography, river crossections, and slopes?
 - Flood Mitigation and Management
 - Does your company collect any post-flood/hurricane data like high or real time water marks
 - Future Planning (current resiliency efforts)
 - Resource availability (available to sharing in-group/public)
 - Resource requirement (clearance/training/compliance required for data access and collection)



Midstream Center



FOCUS

The Center for Midstream Management and Science (the "Midstream Center"), led by Thomas Kalb, was established and funded by the Texas legislature in late 2019 to serve as a bridge between Lamar University and the midstream industry, including all oil and gas transportation, natural gas processing, terminals, and storage. The Midstream Center's mission is to promote dialogue and collaboration with industry by leveraging LU's engineering and research capabilities with a focus on: (i) leak detection and monitoring, (ii) big data, Al and predictive maintenance, (iii) corrosion detection and monitoring, and (iv) resilience and reliability.

ACHIEVED

- ✓ Instituted Industry Advisory Board ("IAB"), including members from ExxonMobil Pipeline, Plains All American, Muse, Stancil & Co., Corrpro Aegion Corporation, Motiva Enterprises, Falgout Consulting LLC, Enerflex Ltd., and International Alliance Group.
- ✓ Developed the Midstream Center's research focus through a process that integrated the strengths and interests of LU faculty with a forced ranking of midstream industry issues by the IAB.
- ✓ Awarded funding for six midstream centric research projects to faculty teams at LU under an RFP process that was judged by industry advisors.
- ✓ Became the first academic institution to become a member of the GPA Midstream Association, the dominant midstream industry organization in the country since 1921.
- ✓ Established regular Midstream Center newsletter and Profiles in Midstream award program to honor faculty and industry professionals for notable achievements in the midstream arena.
- ✓ The Midstream Center has arranged a three-day course through GPA designed to indoctrinate engineering and computer science faculty in midstream industry design and operational issues to better bridge LU faculty research capabilities and interests with industry needs.



FUTURE

- 1. Developing Midstream Certificate in support of undergraduate engineering disciplines and Masters of Engineering Management degree to enhance the value of LU graduates to the midstream industry and assist industry personnel to build their post-graduate careers.
- 2. Creating Midstream Clearing House that will provide midstream academia and industry a pure play database on all midstream relevant research on record to enhance transfer of midstream knowledge to industry and researchers.
- 3. Establishing annual Midstream Technology Showcase to promote new and emerging technologies impacting the midstream sector.
- 4. The Midstream Center is hosting two online Midstream Roundtables with industry leaders in September and October to address (i) broad industry issues that will dominate the midstream industry in the foreseeable future, and (ii) technological and operational issues facing the midstream industry today.
- 5. The Midstream Center is in preliminary discussions with a major Texas university to create a workforce training JV focused on Venezuela and also with a global consulting firm interested in working with LU engineering faculty in handling technology and operational issues that will likely develop out of the coming industry consolidation and resultant combination of varied midstream assets.
- 6. RFP #2 is in the process of being issued to LU faculty with the objective of selecting and funding four to six midstream relevant research projects that will be judged and selected by the IAB based on industry relevance and importance.
- 7. The Midstream Center is seeking opportunities to assist midstream companies in solving their technical and operational problems where LU engineering faculty capabilities can be brought to bear.

NEXT STEPS AND CONTACT INFORMATION

NEXT STEPS: PLAN COMMITTEE MEETING AND WEBINARS

CONTACT INFO:

CAPM

ERIK STROMBERG, 910-617-6800, rstromberg@lamar.edu CANDICE MOORE, 409-880-7121, cmcormier@lamar.edu

CICE

PAUL LATIOLAIS, platiolais@lamar.edu

PORT OF BEAUMONT

SADE CHICK, 409-835-5367, sc@pobtx.com

MIDSTREAM CENTER

TOM KALB, tkalb@lamar.edu

DEPT OF CIVIL WORKS AND ENV—FLOOD PLAIN RESILIENCY

DR. LIV HASELBACH, lhaselbach@lamar.edu





Port Welfare Sub-Committee Report

Southeast Texas Waterway Advisory Committee July 23, 2020

Port Arthur Seafarer Center Update

Questions?

Thank You



Waterway Maintenance and Improvement Subcommittee Report

Larry Fountain, Sabine-Neches Navigation District



Update on Deepening

Firefighter Plans Update



Larry Fountain, SNND

Sabine-Neches Waterway

Operations and Maintenance Update

Timothy J. White, PE, PMP Resident Engineer

Belynda Kinman Operations Manager

USACE – Galveston District

SETWAC Meeting July 23, 2020





Ongoing Contracts

Sabine-Neches Waterway





SABINE-NECHES WATERWAY MAINTENANCE DREDGING



Project:	Sabine-Neches Waterway Maintenance Dredging
Dredging Depth:	40 ft. Authorized Depth
Dredging Quantity:	Est. 3 MCYs
Material Type:	MAINTENANCE
Placement Areas:	PAs 8 and 5
Type of Equipment:	Pipeline Dredge
Award Date:	09 August 2019
Est Completion Date	31 October 2020

Contractor: RLB

Dredge: Jonathon King Boyd

Completed Areas







SABINE-NECHES WATERWAY ANCHORAGE BASIN No. 1 NEW WORK



Project:	Sabine-Neches Waterway Anchorage Basin No. 1
Dredging Depth:	42 ft. Required Depth
Dredging Quantity:	Est. 1.3 MCYs
Material Type:	NEW WORK
Placement Areas:	PA 17
Type of Equipment:	Pipeline Dredge
Award:	February 2020
Est Completion	September 2020

Contractor: Crosby

Dredge: Crosby Dredger





FY 2020

Future Dredging Contracts

Sabine-Neches Waterway





SABINE-NECHES WATERWAY SABINE PASS AND OUTER BAR & BANK CHANNEL



Project:	Sabine-Neches Waterway Outer Bar & Bank
Dredging Depth:	40ft/42 ft. Authorized Depth
Dredging Quantity:	Est. 4 MCYs
Material Type:	MAINTENANCE
Placement Areas:	ODMDS 1 - 4
Type of Equipment:	Hopper
Est Award:	August 2020
Start Dredging	September 2020





SABINE-NECHES WATERWAY PA 11 Training Dike Rehabilitation



Project:	PA 11 Training Dike Rehabilitation
Type of Work:	Levee Improvements
Placement Area:	PA 11
Type of Equipment:	Excavators; Dozers; Marsh Buggy
Env. Window:	None
Est Award	September 2020



FY 2021

Future Dredging Contracts

Sabine-Neches Waterway





SABINE-NECHES WATERWAY PLACEMENT AREA NO. 8 IMPROVEMENTS



Project:	Sabine-Neches Waterway Placement Area No. 8 Improvements
Type of Work:	Levee Improvements
Placement Area:	PA 8
Type of Equipment:	Excavators; Dozers; Marsh Buggy
Env. Window:	None
Reason for Window:	NA
Est Award	October 2020





SABINE-NECHES WATERWAY ENTRANCE CHANNEL TO SABINE PASS DEEPENING



Project:	Sabine-Neches Waterway Outer Bar & Bank to Sabine Pass **
Dredging Depth:	48 ft. Authorized Depth
Dredging Quantity:	Est. 31 MCYs
Material Type:	NEW WORK
Placement Areas:	ODMDS 1 – 4 and A-D
Type of Equipment:	Hopper/Mechanical
Award:	2021

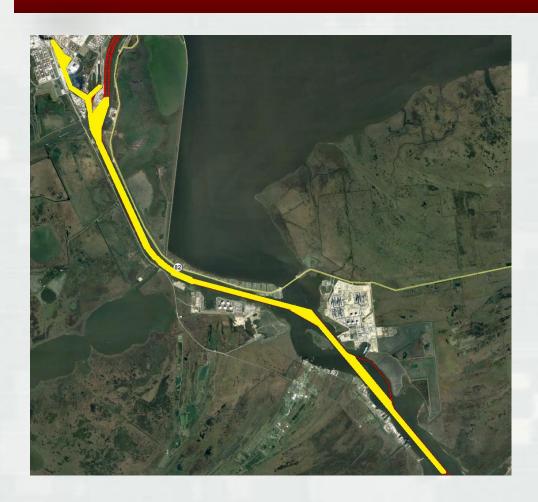
**Also includes Extension Channel

**Dependent on Additional Workplan Funding





SABINE-NECHES WATERWAY SABINE PASS TO TAYLORS BAYOU DEEPENING

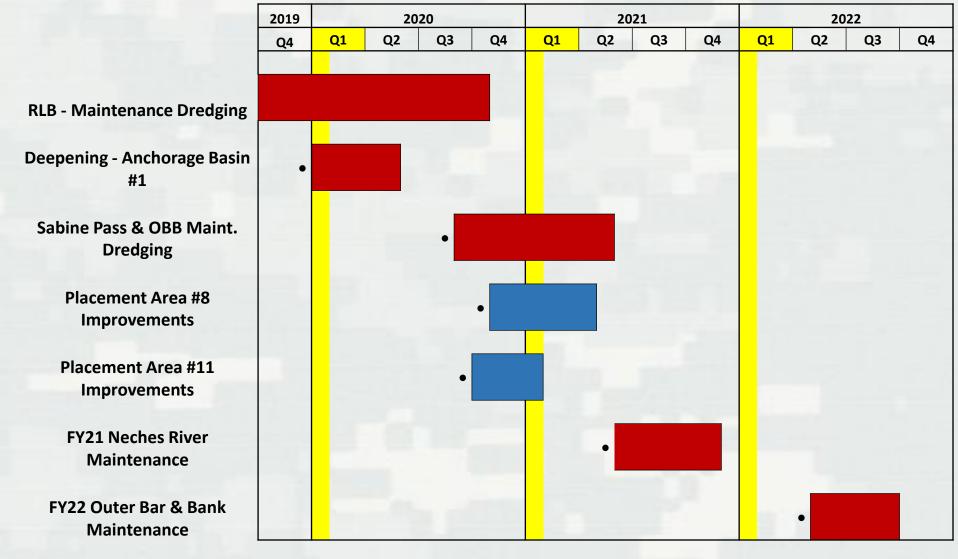


Project:	Sabine-Neches Waterway Outer Bar & Bank to Sabine Pass **
Dredging Depth:	48 ft. Authorized Depth
Dredging Quantity:	Est. 16 MCYs
Material Type:	NEW WORK
Placement Areas:	PA 5,8 & 9 / ODMDS 4
Type of Equipment:	Pipeline/Hopper
Award:	2021

Contract to be awarded by the Sabine-Neches Navigation District. Dependent on Federal Contract.

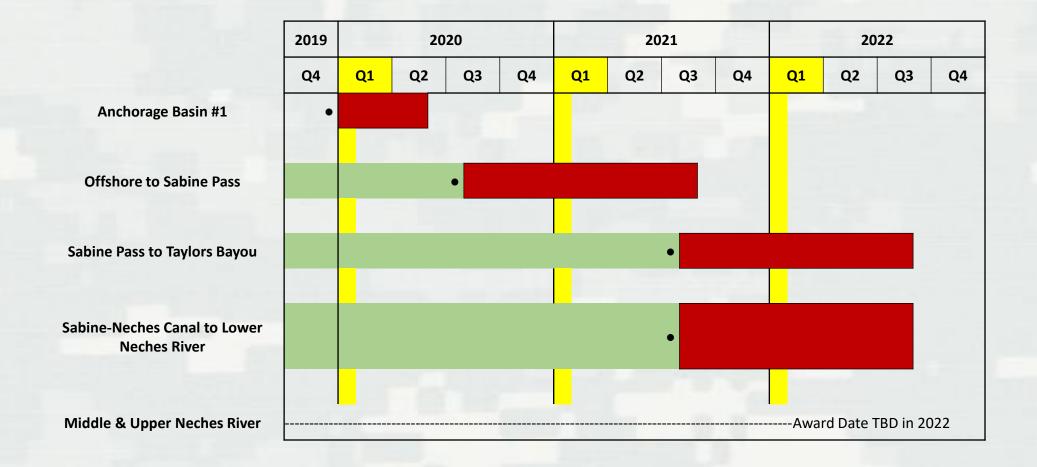


MAINTENANCE Contracts





CHANNEL DEEPENING Contracts





Sabine to Galveston Contracts







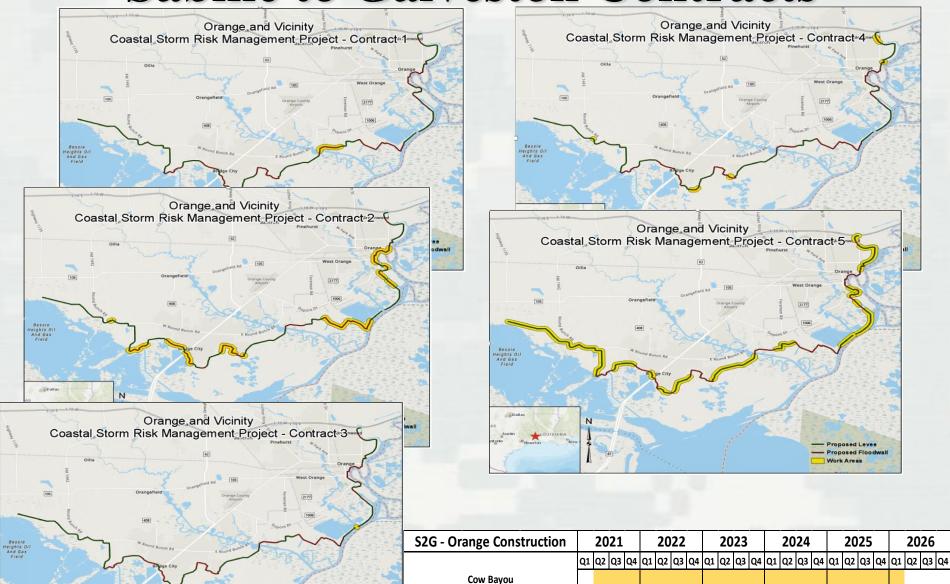


S2G - Port Arthur Construction	2020				2021			2022			2023				2024				2025			2026						
	Q1	Q2	Q3	Q4	Q1	1 Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	L Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Levee Raise																												
Levee Raise & Floodwall Replacement																												
Levee Raise & Floodwall Replacement																												Ī
Levee Raise, Extension & Floodwall Repl	ace	me	nt																									





Sabine to Galveston Contracts



Flood Wall Adams Bayou

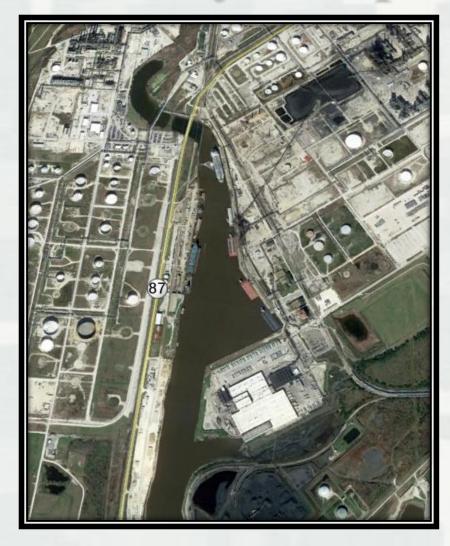
Pump Stations & Flood Walls

Levee Raise

Proposed Floodwall

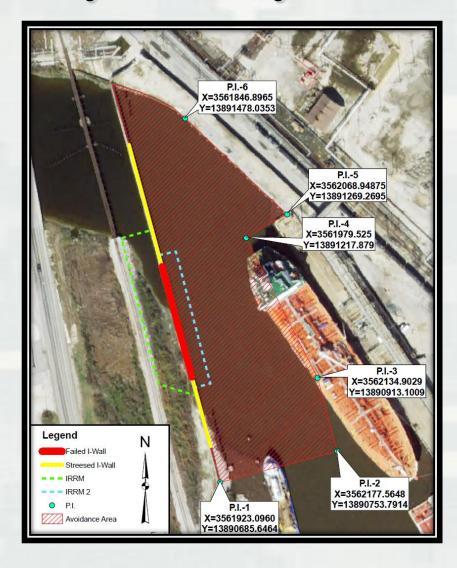
NG STRONG®

Taylors Bayou Update





Taylors Bayou Current Restriction



Current Status:

- Vessel Traffic Allowed in Hatched Area shown in Figure with limitation put on tugs.
- Wall and temporary protection is being monitored by DD7 and USACE.



Regulatory Permits

Emergency Procedures



Emergency Procedure

- Emergency Situation must meet the definition in 33 CFR 325.2(e)(4)
 - Definition: An "emergency" is a situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process the application under standard procedures.
 - Emergency Situation must need work to be performed near the time of the cause and/or discovery of the problem/need.
 - If it's going to take months to plan and/or fund, this is not considered an Emergency per the Regulatory Program.



Emergency Procedure (cont'd)

- Initially providing information on what work needs to be done is needed with the Emergency Request.
 - A full set of Engineering Plans & Specs is not required at this time.
- Emergency Request goes up through Division for Authorization.
- State and Federal agencies will still be called to inform them and allow comment on the project.
- A federally complete application which includes a set of plans showing all impacts to waters of the US will be required after the emergency procedure letter is issued.
- Only one Emergency Procedure Request was approved through Division during Hurricane Harvey.



Regulatory Contact Information

Galveston District – Regulatory Branch 2000 Fort Point Road

OR

P.O. Box 1229

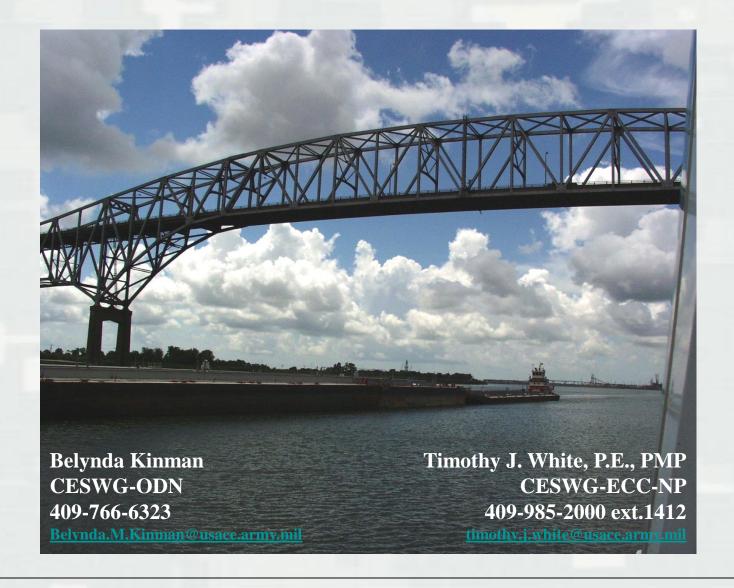
Galveston, TX 77553-1229

409.766.3869

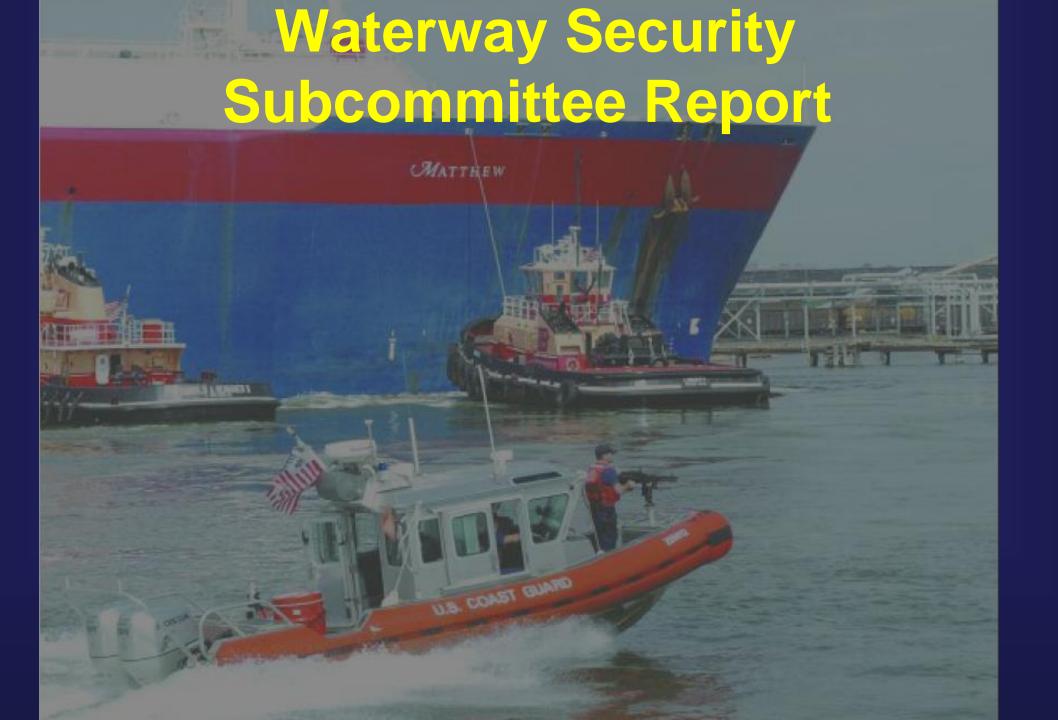
ceswg-pe-r@usace.army.mil



Questions?









AMSC and Port Security Specialist Report



QUESTIONS/COMMENTS?





New Business



Tropical Storm CRISTOBAL



PAWSA Update





Mark Your Calendars Upcoming SETWAC Meetings

Working Group Meeting

Thursday, October 8, 2020

10:00 am

Sabine-Neches Navigation District Office

Full Committee Meeting

Thursday, October 22, 2020

10:00 am

MSU Port Arthur