

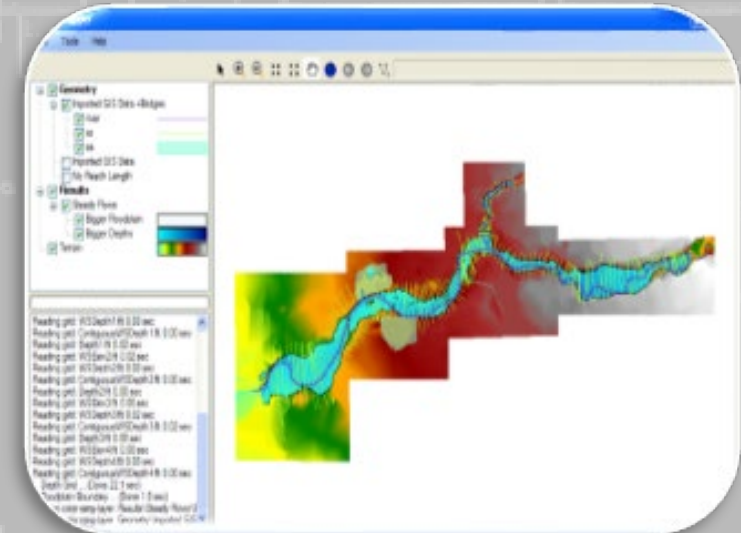
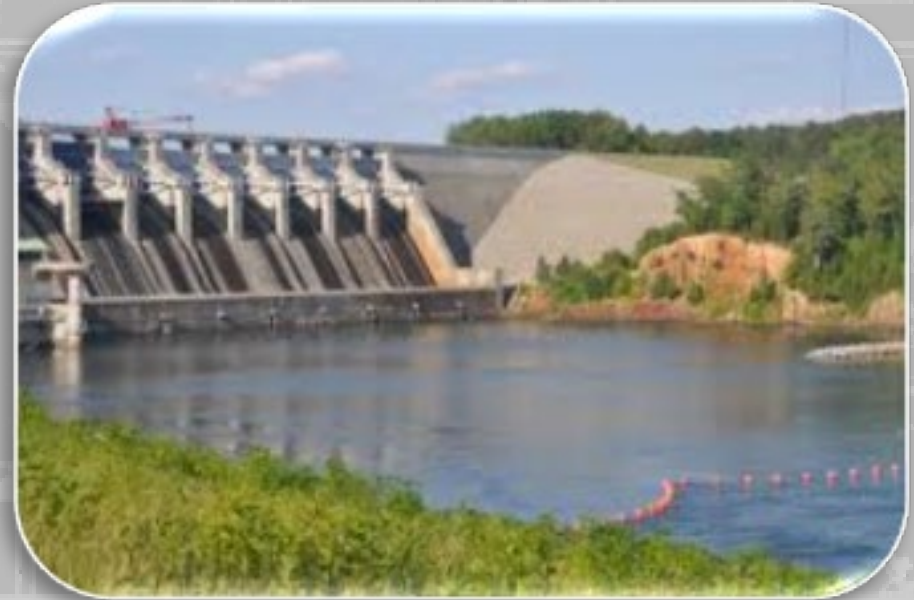
USACE LIAISON UPDATE

Kevin Knight

Economist

USACE, Institute for Water Resources

16 April 2024



US Army Corps
of Engineers®



NAVIGATION INNOVATIONS



Upgrade the Nation's waterways

- 12 Post Panamax Port Deepening Projects on-going or funded



Build innovative, climate-resilient infrastructure

- Identifying opportunities to increase beneficial reuse of dredged material to effectively manage sediment within the ecosystem.



Modernize Civil Works programs

- Improving major maintenance and rehab policies and processes to efficiently manage critical assets - locks, breakwaters, and jetties
- Modernizing dredge fleet



Invest in science, research and development

- Find environmentally friendly technology to meet our increased maintenance, resiliency and beneficial use of dredged material goal



Strengthen communications and relationships

- Increased regional and enterprise coordination meetings for dredge scheduling



REMOTE LOCK OPERATIONS INITIATIVE



Vision: Implement lock & dam remote control to modernize operations for navigation in the future.

Goals:

- Consistent national implementation
- Standardization
- Life cycle investment
- Prioritized for people

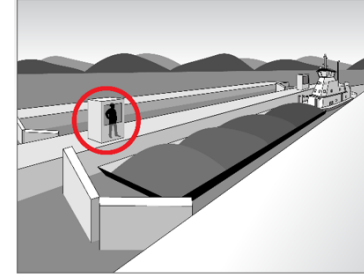
USACE Commitments:

- **Safety** is essential!
- **Reliable & consistent** commercial locking operations
- Maintain **public access** & assistance during recreational locking
- Protect system – ensure physical & **cybersecurity**
- **Committed** to USACE workforce – orderly & deliberate transition while providing additional opportunities

Ongoing work:

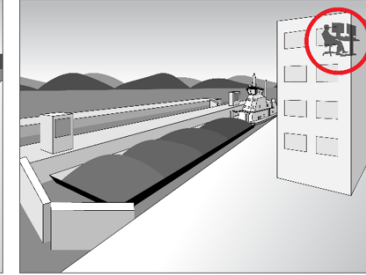
- INDC to hire National PgM to lead enterprise effort
- Developing national technical & operational standards to ensure consistency
- Detailed site-specific assessment to determine viability prior to implementation – through work package requests

Operational Scenarios



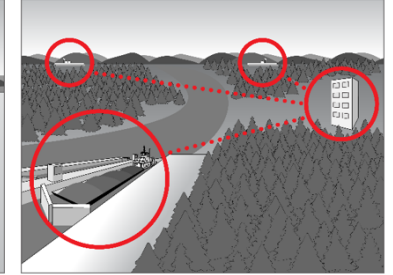
Local Operation

- Lock operated from lock wall
- Maintain capability to operate from lock wall.



Control Room

- Lock operated from *local control room* using camera & sensors.
 - The Corps has 20+ years experience operating locks from a control room.
- Maintain capability to operate from lock wall.



Remote Operation?

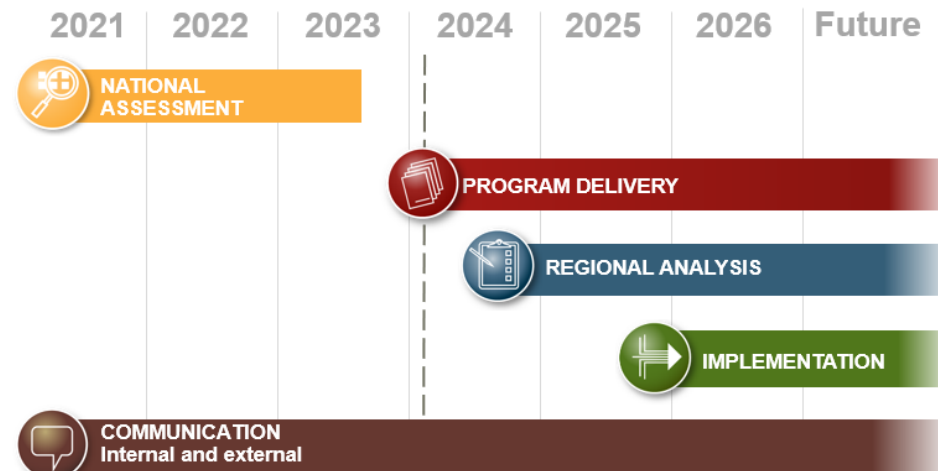
- Lock operated from *off-site control room* using camera & sensors.
- Remote Operation is **not automated** locking.
- Multiple locks operated from primary control center with alternate control center & standby local operation capabilities.

Majority of current portfolio

Currently operating
at many of “new” locks

Future operations?

Schedule





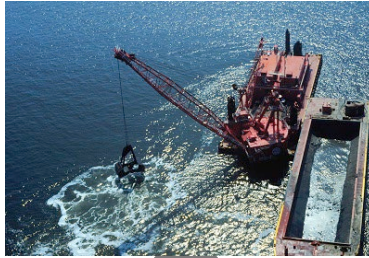
NAVIGATION KEY INITIATIVES



- **Modernizing and rehabilitating key infrastructure.**
 - Using the Capital Investment Strategy to identify opportunities for investment in the inland system
 - Improving major maintenance and rehab policies and processes to efficiently manage critical assets - locks, breakwaters, and jetties
 - Leveraging consolidated/coordinated closures to complete necessary major lock maintenance and rehab
- **Executing historical investment using key principles of delivery**
 - Strategic stakeholder & industry engagements
 - Enterprise and Regional coordination and scheduling
 - Use best management practices for contracting process
 - Find environmentally friendly technology and innovation solutions to meet our increased maintenance, resiliency and beneficial use of dredged material goals
- **Efficiently manage dredged material placement capacity**
 - Improve dredge material management policies and practices
 - Increase beneficial reuse of dredged material to effectively manage sediment within the ecosystem
 - Leverage 5-year dredged material management plans



BENEFICIAL USE OF DREDGED MATERIAL - VISION



Ways

PROMOTE UNDERSTANDING: "WHY"
DEFINE INNOVATION PROCESS: "HOW"

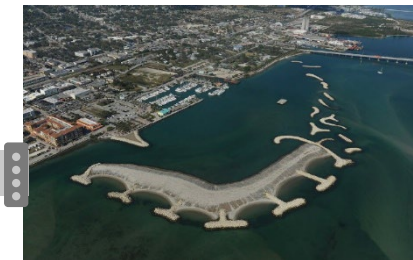
- Address key obstacles to executing beneficial use,
- Identify, develop, and share Beneficial Use best practices in planning, engineering, construction, and operations,
- Collaborate on innovative financing and resourcing, considering life cycle costs and benefits,
- Foster both internal and external relationships, and
- Report on the progress.

Ends

SHAPE OUTCOMES: "WHAT"
AND "WHEN"

70/30 GOAL

*Chief of Engineers
established goal to advance
the practice of BU to
70% by the year 2030*



*Dredged material valued as a resource not to be wasted but used
for benefits to the ecosystem, economy, and project delivery*

Means

**ORGANIZE KEY CONTRIBUTORS AND
UNIFY ENTERPRISE PURPOSE: "WHO"**

National BU Policy

**Congressionally established
by Section 125 of WRDA 2020.**
In doing so, Congress has underscored the
importance of the Beneficial Use of Dredge
Material (BU) program.

Leadership:

- Governance
- Communities of Practice support
- Guidance
- Tiger Teams

Battle Rhythm:

- Economics Guidance Memorandum
- Decision Management Plan
- Regional Governance Meetings
- Project Review Boards
- In-Progress Review



INLAND NAVIGATION CHALLENGES



Lack of Metrics to Measure & Define success

- Designer competency
- How are design costs impacted
- Application of lessons learned



Unexpected Cost & Schedule Growth

- Cost escalations
- Construction market increases
- Unrealistic assumption in feasibility phase



Maintenance Funding

- Implementation of asset management principles
- Use common component and standard designs
- Leveraging technology advancements i.e. Remote locks and FRP



MORE USACE HIGHLIGHTS



- **FY 2024 = Record appropriations**
- **WRDA 2022 (Implementation Underway)**
 - **Authorized (25) New Projects totaling \$50B; 6 Project Modifications \$11.8B**
 - **94 new studies and 12 mod studies**
 - **Reduce percentage of inland waterway or intracoastal waterway construction project costs that are derived from the Inland Waterways Trust Fund (IWTF)**
 - **Extend periodic sand nourishment for coastal storm damage reduction**
 - **Western Infrastructure Study**
 - **Increase Continuing Authorities Program's federal project cost limit for streambank and shoreline (erosion) projects**
 - **Establish a Tribal and Economically Disadvantaged Communities Advisory Committee (TEDCAC)**
- **Update to 5-year Capital Investment Strategy**
- **High-Priority Lock & Dams**
- **Drought in Lower Mississippi River over?**



WRDA 2024



WRDA Resources

Hearings:

- [January 11, 2024 - Proposals for s Water Resources Development Act of 2024: Members' Day Hearing](#)
- [December 13, 2023 - Proposals for a Water Resources Development Act of 2024: Stakeholder Priorities](#)
- [December 5, 2023 - Water Resources Development Acts: Status of Past Provisions and Future Needs](#)

Chief's Reports:

- [Memphis Metropolitan Stormwater - North DeSoto County Feasibility Study, DeSoto County, Mississippi, Flood Risk Management and Ecosystem Restoration](#)
- [South Shore Staten Island, Fort Wadesworth to Oakwood Beach, Richmond County, New York, Coastal Storm Risk Management](#)
- [Gulf Intracoastal Waterway, Coastal Resilience Study, Brazoria and Matagorda Counties, TX](#)
- [Baltimore Harbor Anchorages and Channels Modification of Seagirt Loop Channel, City of Baltimore, MD, Deep Draft Navigation](#)
- [Rhode Island Coastline, Rhode Island, Coastal Storm Risk Management](#)
- [University City Branch, River Des Peres, Missouri, Final General Reevaluation Report \(ORR\) with Integrated Environmental Assessment, University City, St. Louis County, Missouri, Flood Risk Management](#)



USACE – SOME NEW ORLEANS DISTRICT PROJECTS

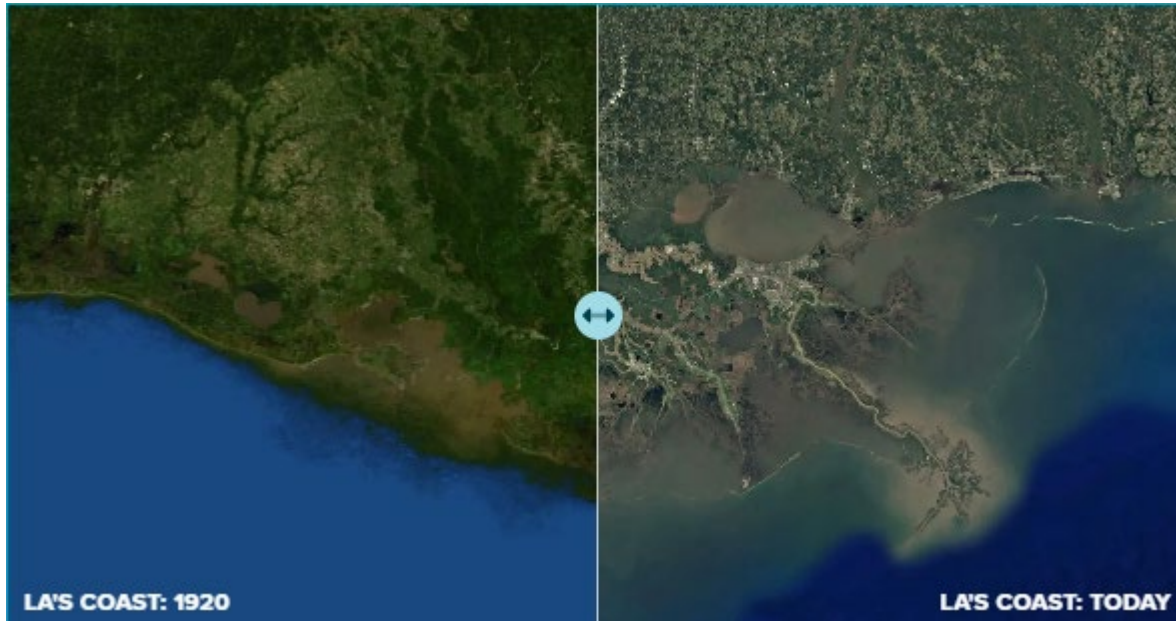


Port of New Orleans Access Channel Deepening
Houma Navigation Channel
Lake Pontchartrain & Vicinity
West Bank & Vicinity

0.01 (100-year) Hurricane Storm Risk Reduction System (HSRRS) Levee Lifts

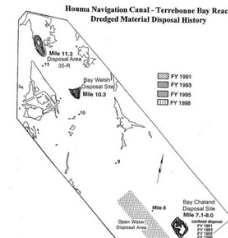
Mid Barataria Sediment Diversion (using sediment from the Mississippi River to rebuild wetlands (it is controversial in that oyster fishermen and others are impacted but is a natural way to build back land south of the urbanized areas.

[Mid-Basin Sediment Diversion Program \(la.gov\)](https://www.la.gov/mid-basin-sediment-diversion-program)



Project Description

The Houma Navigation Canal is a Federally maintained waterway that connects the Gulf Intracoastal Waterway in Houma with the Gulf of Mexico. The Recommended Plan, which is the national economic development plan, consists of deepening the HNC channel to ~20 (North American Vertical Datum of 1988) feet compared to the currently authorized channel depth of ~15 feet. The plan also provides for the construction of rock foreshore protection and retention dikes for channel bank erosion control, reduction of sedimentation in the channel, and for retention of dredged material. The disposal plan provides for beneficial use of dredged material by placing material in locations and quantities with earthen containment structures to restore wetland habitats.

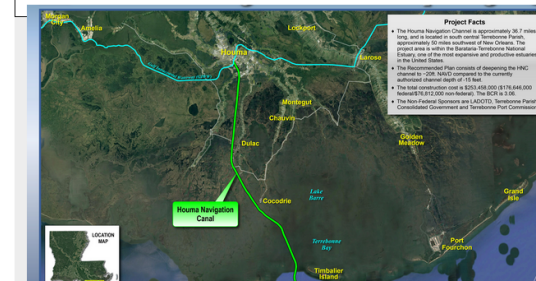


Project Focus, Risks, and Importance

The current channel depth causes marine interests to use less efficient methods to service the offshore oil and gas facilities located in the Gulf of Mexico.

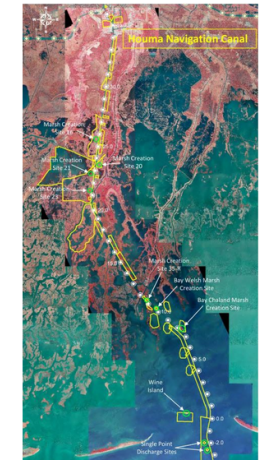
Large vessels will not be able to pass through the channel efficiently. This will result in increased waterborne transportation costs.

Houma, Louisiana, is a large center for shipyard work for the offshore marine sector for the construction of new vessels and for regular repairs of licensed vessels. It also serves as a hub for service and supply for the offshore oil industry. With exploration activities occurring in deeper waters of the Gulf of Mexico, large vessels with more capacity are needed. As such, a deeper waterway is needed to reduce current waterborne transportation costs to allow the use of fully loaded larger vessels, as opposed to more trips with smaller vessels or light loaded large vessels. This would also allow for the efficient passage of large oil and gas sector barges, new vessels built or repaired at the Houma shipyards.



Location

The Houma Navigation Channel is located in south-central Terrebonne Parish, approximately 50 miles southwest of New Orleans. The project area is within the Barataria-Terrebonne National Estuary, one of the most expansive and productive estuaries in the United States





NEW ORLEANS SEDIMENT DIVERSION PROJECT



MID-BARATARIA SEDIMENT DIVERSION

PLAQUEMINES PARISH

The Mid-Barataria Sediment Diversion, located on the west bank of the Mississippi River, is a first-of-its-kind coastal restoration project that, once complete, will become one of the largest environmental infrastructure projects in the history of the United States.



PROJECT BENEFITS

THOUSANDS OF ACRES OF LAND BUILT AND SUSTAINED, CONTINUOUS MARSH CREATION

The Mid-Barataria Sediment Diversion has the capability to build and sustain an estimated 13,000 to 26,000 acres (about 20 to 40 square miles) of wetlands, depending on the rate of future sea level rise. After 50 years of operation, under the higher sea level rise assumptions used in the environmental review process, about 20% of the wetlands remaining in Barataria Basin will only be there because of the Mid-Barataria Sediment Diversion.



STORM SURGE AND STORM PROTECTION FOR VULNERABLE COMMUNITIES

Wetlands in the Barataria Basin created and sustained by the project will help to push back storm surge and reduce wave impacts in Jefferson, Orleans, and portions of Plaquemines Parishes.

FUNCTIONAL ESTUARY FOR A WIDE RANGE OF PLANTS AND ANIMALS

Re-establishing the natural processes and river flow into the Barataria Basin will lead to a more productive, dynamic, and ultimately sustainable estuary. By comparison, if natural processes are not re-established, the steady and dramatic decline currently underway will worsen. A sustainable estuarine system supports healthy marsh and habitat for a wide variety of seafood, fish, and other aquatic life that would be lost without the project.

SIGNIFICANT ECONOMIC BENEFITS FOR COASTAL PARISHES AND BEYOND

- \$1.4 billion increase in sales
- \$648 million increase in household earnings
- 12,400 additional direct, indirect, and induced jobs
- \$890 million in gross regional product



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KEY BRIDGE RESPONSE DASHBOARD



USACE Resources

Resource	Type	Remarks
REYNOLDS	Debris Vessel	On-Site
CATLETT	Survey Vessel	On-Site

External Resources

Resource	Type	Remarks
SCM-Hughs 2001	330 ton Floating Crane	On-Site
SCM- KS 6007	330 ton Floating Crane	On-Site
SCM - Samson	330 ton Floating Crane	On-Site
SCM - Link Belt 268	250 ton Floating Crane	On-Site
SCM - 200-1	60' Platform Ringer	On-Site
Resolve - WEEKS 533	500 ton Floating Crane	On-Site
HSWC 500-1000	1000MT Wreck Grab	Enroute. ETA 21APR
Resolve - RNG 400	400 ton Floating Crane	On-Site
Resolve - JMC-163	Floating Crane	On-Site
DJ - CHESAPEAKE 1000	1000 ton Floating Crane	On-Site
DJ - FARRELL	160 ton Floating Crane	On-Site
DJ - OYSTER BAY	150 ton Floating Crane/Cla...	On-Site
DJ - Pierson	Metal Shear	On-Site
DJ - Cashman	Metal Shear	On-Site
SCM - Columbia NY	400t Crane Bridge	On-Site

SME Resources

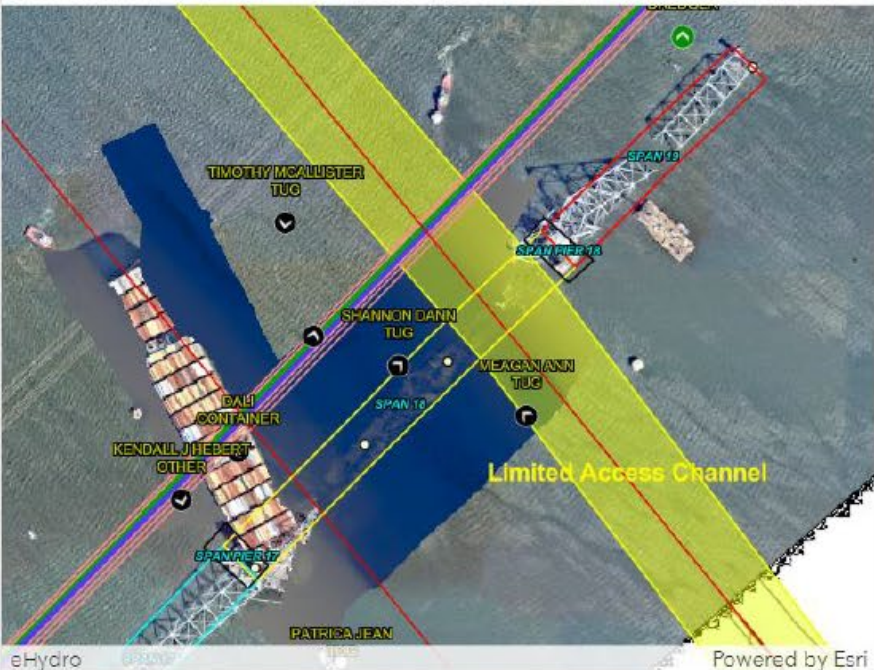
Discipline	PAX	Remarks
Structural Engineering	2 (NAB)	On-Site
Dive Safety	1 (NAP), 1(NAD)	On-Site and Remote
Public Affairs	1 (NAB), 1 (NAD), 1 (CIC), 1 (CIC)	On-Site

USACE On Ground

Total: 50

Total USACE Supporting

Total: 82



Last 24

1. Channel Clearance: Debris removal in Section 1 to enable cut, rigging locations surveyed with no concerns.
2. Vessel Refloat: 12 Containers removed (34 Total).
3. Wreckage Removal- Sorting yard has been established at Sparrows Point, receiving steel and concrete.
4. Sparrows Pt. Secondary sorting established for collection and processing of dredged material.

Next 24

1. Channel Clearance: Debris removal and cut ongoing in Span 18, Section 1. Dive surveys ongoing.
2. Vessel Refloat: Continue to remove containers. Section 4 removal plan continued development for finalised blast cutting.
3. Wreckage Removal: Span 19 cutting and debris removal ongoing, additional span cuts being planned as equipment is mobilized to Spans 20 and 21.



STEADY STATE INTENT

- Site Safety
- Recovery of Victims
- USACE with Support to USCG (Incident Commander)
- Maximize Navigational Capabilities of the Port of Baltimore

SIGACTS

BLUF: Progress on Track for Limited Access Channel and Federal Channel Reopening.

1. No change to critical path or published timeline for the Limited Access Channel or full reopening of Federal Channel.
2. Span 18 - Digging and wreckage removal perations continue on Section 1
3. Span 18 - Ongoing surveys and planning for steel removal at Sections 1 and 0.
4. Dali - Lift operations - 12 containers removed to bring total to 34 total containers removed.
5. Dali - Projecting finalization of precision cutting plan today, 10APR. Demo materials to arrive approx 19APR.
6. Dali - Continued efforts to improve working area (removal of 30 tons of soybeans, various other container spills, rainwater management, air monitoring)
7. Transponder installation continues.
8. Sparrows Point - Sorting yard established for steel and concrete. Pending secondary location for mud and mixed debris.
9. All backlog of steel from Span 19 processed through Sparrows Point. Maryland provided sorting/storing location for mud wreckage materials.
10. HSWC Wreck Grab (1000T) enroute via ocean route. ETA 21APR. No impact to critical path.

Authorities:

USACE Counsel Position:

USACE has authority to conduct recovery operations throughout the entire recovery zone to include the area outside the federal channel





SALVAGE PLAN CONCEPT

SALVAGE PLAN - OPERATIONS



The following is the Operations plan for reopening the Baltimore Harbor; all salvage operations go hand-in-hand with victim recovery.

PRIORITY 1 OBJECTIVES | CLEAR FEDERAL CHANNEL

- A Rig, Cut, and Clear Span 18, Section 1
- B Rig, Cut, and Clear Span 18, Section 2/3
- C Rig, Lift, Cut, Clear Span 18, Section 4

PRIORITY 2 OBJECTIVES | REFLOAT & REMOVE DALI

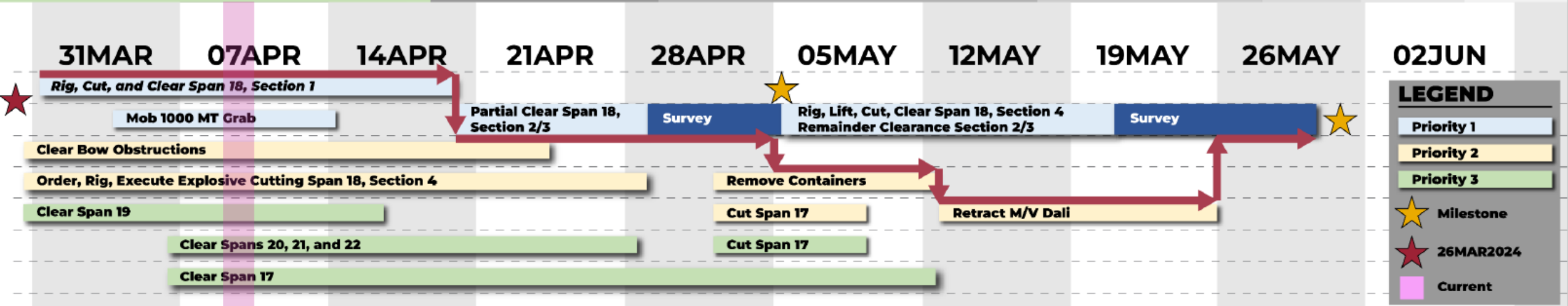
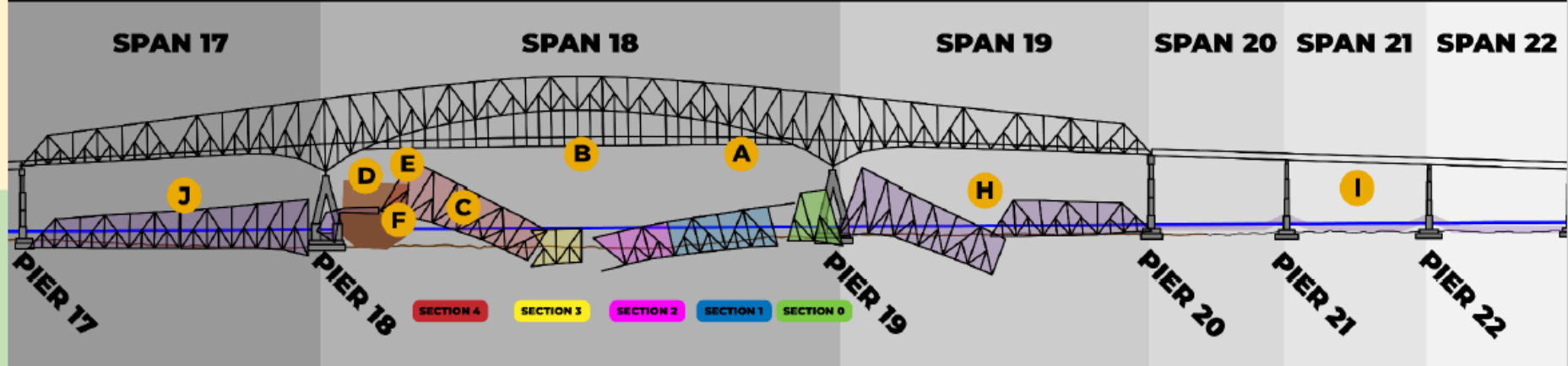
- D Clear obstructions
- E Explosive cutting Span 18, Section 4
- F Remove containers from M/V Dali
- G Retract M/V Dali to dock at CSX in Baltimore Harbor

PRIORITY 3 OBJECTIVES | CLEAR REMAINING WRECKAGE

- H Clear Span 19
- I Clear Spans 20, 21, and 22
- J Clear Span 17

Narrative:

The original Salvage Plan to reopen the Federal Channel focused on the removal of Span 18, Section 4 to facilitate reopening the channel to vessel traffic. Complexities confirmed by divers in Span 18, Section 2/3 complicate the removal of Section 4 due to the severity and depth of the wreckage. As a result, USACE and SUPSALV have determined that opening a **Limited Access Channel** of 280' width and 35' depth in the vicinity of Section 1 offers the safest and **fastest** option to reopening commerce in Baltimore. The resulting Salvage Plan modifications are detailed below.





SHIP SIMULATIONS



FT MCHENRY BYPASS CHANNEL SIMULATIONS

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Objectives:

- Assess viability of bypass channel layout for tanker/bulker, 2 RoRo's, and a container ship with tug assistance
- Determine if further restrictions should be considered for this temporary channel
- Determine if buoy placement is adequate for navigation of the bypass channel
- Determine if shape of either end of bypass channel can be altered to improve ship entrances and exits

Status of Simulations – 10 Apr 2024:

- All vessel models validated (4 vessels).
- Preliminary daytime, inbound transits made with loaded RoRo. Transits were successful, preliminary indicator of channel viability.
- Network line cut in Jackson, MS creating a pause in simulations.
- Workaround for network issue identified and implemented.
- Night transits of bypass channel have commenced with loaded RoRo.

Next Steps for 11 Apr 2024:

- Complete loaded RoRo transits
- Begin transits for ballasted RoRo and light-loaded container ship
- Produce preliminary analysis of transits completed
- Conduct end of day debrief



As of: 101800ABR2024 Created: NAD EOC /CENAD.EOC/Business Army mils



U.S. ARMY

FRANCIS SCOTT KEY BRIDGE RESPONSE – MARCH 2024



26

CUI

Total Civil Support	Total Deployed	Total Reachback	OPEN MA	CLOSED MA	TOTAL FEMA MA	TOTAL FCCE	TOTAL NEPP	TOTAL O&M	Mil Deployed	MIL Reachback	Civ Deployed	Civ Reachback
104	64	40	0	0	\$0 +\$0	\$0 +\$0	\$677.5k +\$75k	\$34M +\$0	15	0	48	39

SITUATION:

Missions for clearing 35 feet channel by 30 APR and reopening of federal waterway on 31 MAY are on track. Rain will impact some operations Tuesday, Thursday, and Friday, with potential for lightning. Thursday through Saturday will also hold the threat of wind. The combined weather will not stop operations but may occasionally slow dive and maritime operations.

USACE SUPPORT:

- 08 APR, NAD received NEPP funding for continued EOC activation

SALVAGE PLAN PRIORITIES:

PRIORITY 1: CLEAR FEDERAL CHANNEL

LAST 24

- Wreckage removal in Section 1 to enable cut, rigging locations - surveyed with no concerns
- Section 1 under development, dive surveys in Section 0 with planning underway

NEXT 24

- Wreckage removal and cut ongoing in Section 1, dive surveys ongoing

PRIORITY 2: REFLOAT AND MOVE DALI

LAST 24

- 21 containers removed to date
- 30/80 tons of spoiled soybeans removed by hand, to date
- Continue developing mooring plan for Dali's docking area following removal

NEXT 24

- Hazard containment ongoing, container moves ongoing
- Precision cutting materials will be placed on order
- Ongoing planning for precision cutting - expect full plan to be submitted in the next week

PRIORITY 3: CLEAR REMAINING WRECKAGE

LAST 24

- Sparrows Point yard access improvements: removed steel for site deposited for processing 09 APR

- Pier wreckage removed and processed

NEXT 24

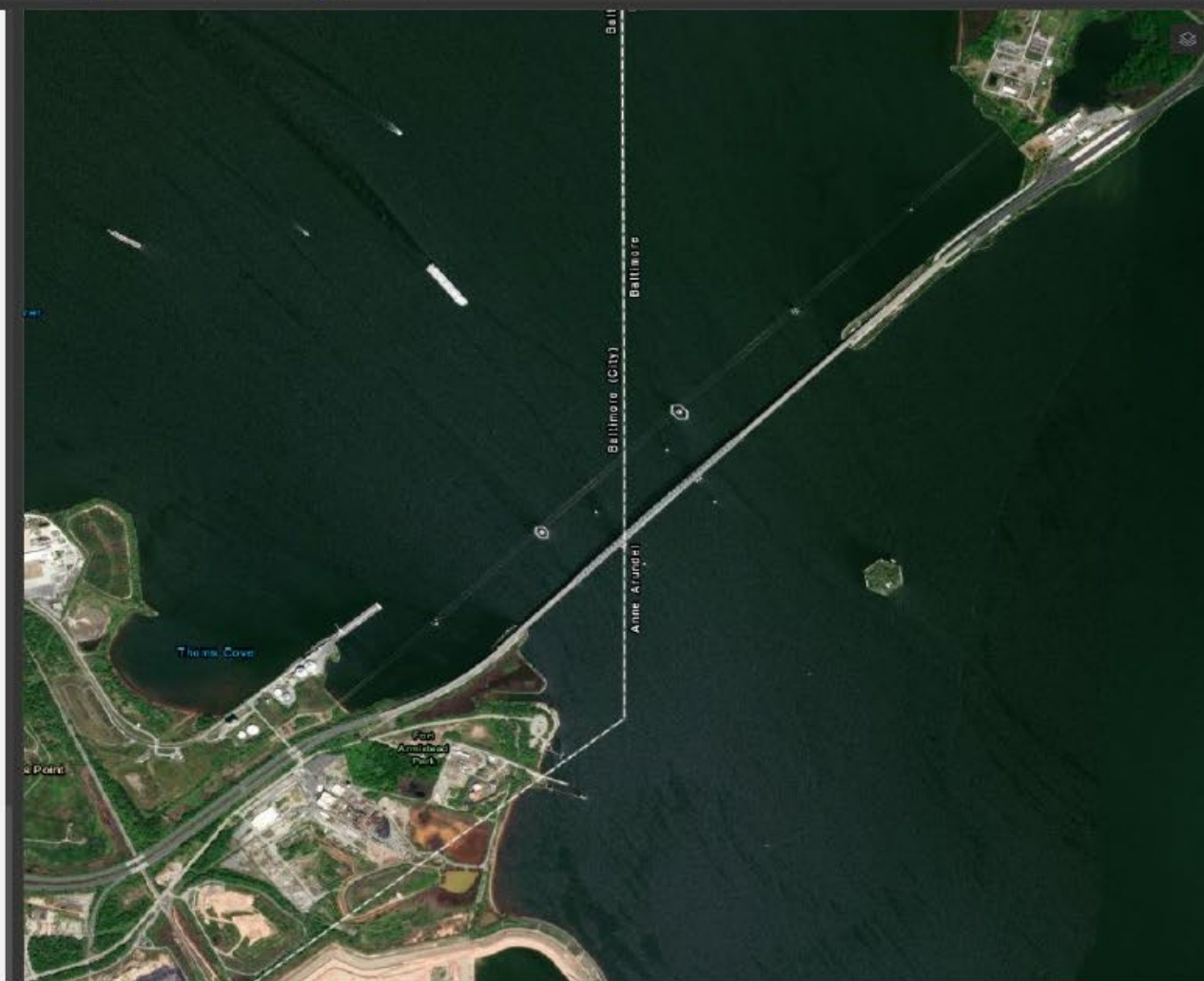
- Deck demolition at Span 19 continues with "Rubbelizer"
- Continue picks and cutting operations at Span 17
- Removed steel processed at Sparrows Point (485 tons removed so far)

PERSONNEL ON-SITE: as of 09 APR at 1000

- TOTAL USACE: 34
- TOTAL USACE SUPPORTING: 86
- TOTAL: 120

JOINT INFORMATION CENTER:

- Closed/Responded to 708 Public/Media Incident Inquiries to date
- 08 APR, COL Pinchasin interviews with two Spanish-language media outlets



Key Event Nodes

- CG IMAT
- MD SEOC
- CG Atlantic Strike Team
- CG MSC CERT
- NAVY SUP SALV
- NAD EOC
- NAB EOC
- UOC
- Unified Command Center

CUI



JOINT INFORMATION CENTER (JIC) DAILY UPDATE



U.S. ARMY

JIC: Public/Media Incident Inquiries

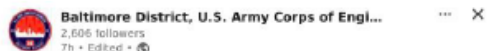
- Closed/Responded to – 708 to date
- Open – 0

JIC: Staffing

- Demobilized half of personnel

JIC: Estimated National Audience

- Network TV: 25 million
- Print: 40 million
- Digital: 435 million



"I don't need anything — I've got Baltimore District on this job." A message to the Baltimore District from Lt. Gen. Scott Spellmon, Commanding General and Chief of Engineers of the **US Army**. ...see more



You and 76 others

1 comment • 8 reposts



See insights and ads

Boost post

5.7K

1K comments 581 shares 1.1M plays

USACE: Press Releases/Public Affairs Guidance

- Visual assets placed in NAB PA's DVIDS
- M,W,F response update/messaging & daily media clips distributed to UOC/EOC/G3

USACE: Media Interviews/Inquiries

- Spanish-language media outreach; shifting interviews w/ COL Pinchasin
- Underwater narrative: working group media engagement on diving
- 10 APR: Planned Fox 45, WBAL and other potential local media for BG Lloyd

USACE: Products

- Working/editing USACE people-centric video series feature content; published LTG Spellmon message to response workforce
- Salvage Operations Plan animation graphic; working final version
- Refreshed Salvage Operations Plan/wreckage/channels graphics at JIC for clearance
- Received updated CODA imagery; published to social media 10 APR

USACE: Field Engagements

- 09 APR: LTG Spellmon delivered remarks w/ Maryland CODEL; emphasized unified effort
- 10 APR: ASA(CW) onsite
- Governor press conferences moving to ad-hoc basis; next: 10 APR, 1500 (currently no speaking role for COL Pinchasin)





QUESTIONS?



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