



Saltwater Intrusion – SITUATIONAL REPORT

6 October 2023 – 1:00 pm

Incident Snapshot

State Declaration: 154 JBE 2023	WebEOC Incident: 23-023 Saltwater Intrusion – Region 1 – Jun	Activation Level: 3 – EOC Activation Level
Fed Declaration: FEMA-3600-EM-LA	Total Resource Requests: 50	Incident Start Period: September 20, 2023

Incident Overview

Given the extended drought conditions, the fresh water flow rate coming down the Mississippi River has been low. An intrusion of sea water (saltwater) from the Gulf is making its way up north towards the lower parishes and has already affected Plaquemines Parish. Public drinking water, which feeds critical infrastructure as well as residential homes, is sanitized by Water Treatment Plants. The water source for Plaquemines, St. Bernard, Jefferson and Orleans is the fresh water from the Mississippi River. Federal declaration requested 9/26/2023.

Incident Objectives

1. Protect life and property
2. Maintain ongoing messaging and communication to keep public and stakeholders informed.
3. Support water needs for citizens until mitigation measures are present
4. Coordinate and manage all available resources effectively
5. Continue to provide effective incident management that is scalable and fiscally responsible

Weekly update calls: Wednesdays @ 10AM

Current Operations	Future Operations
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GOHSEP remains postured to maintain ongoing coordination with Parishes, State Agencies and Federal Partners, NGOs, Business, and other stakeholders to support the following five lines of efforts:

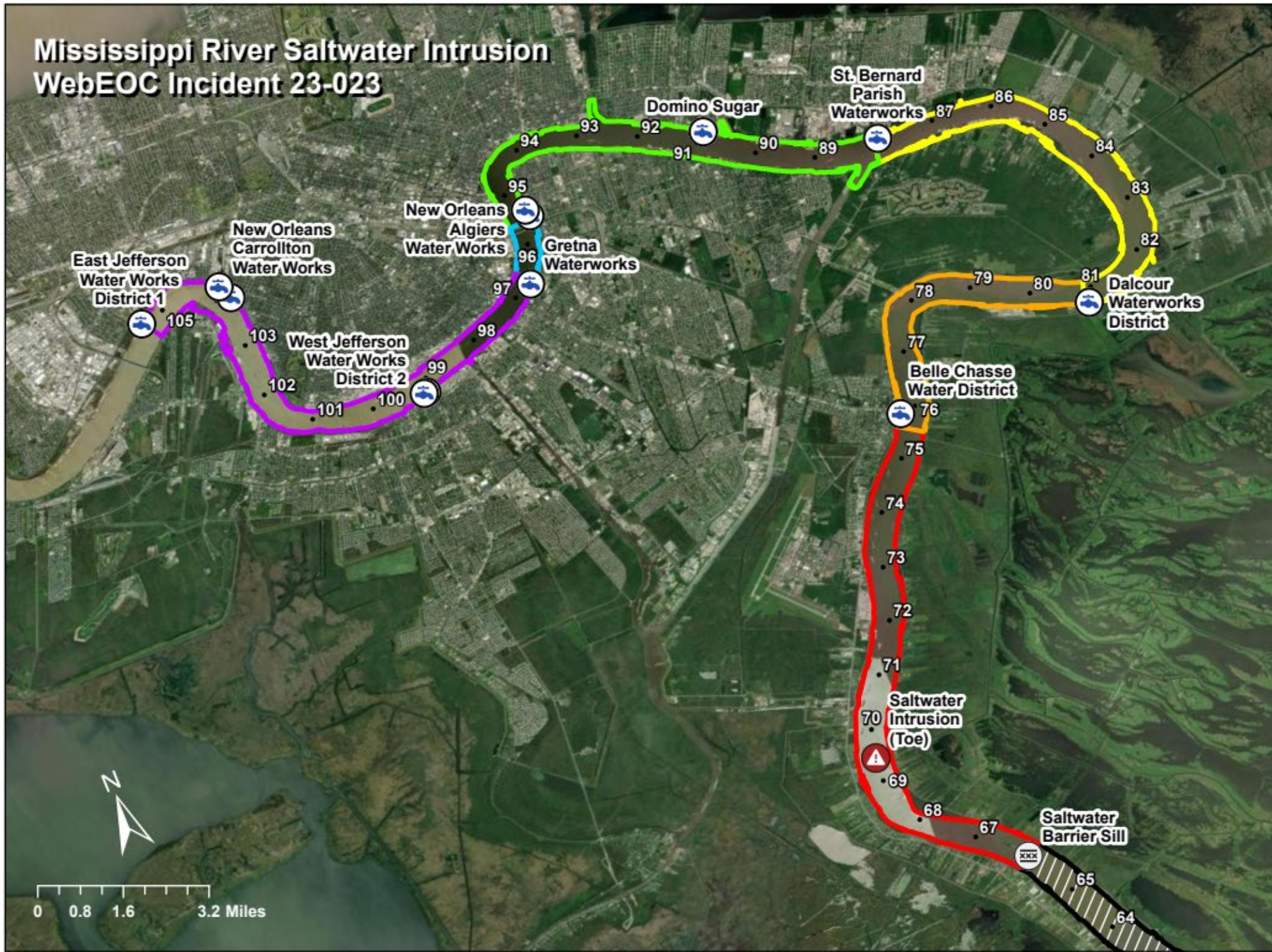
1) Technical Workgroup	2) Public Messaging	3) Public Health
4) Private Sector Engagement	5) Logistics Planning	

USACE continues to support multiple efforts to provide additional mitigation and technical assistance to maintain potable water within the parishes. Construction of an underwater sill in the Mississippi River at Mile Marker 64 to slow saltwater intrusion is 68% complete with full completion expected by 10/12. The saltwater wedge toe is currently located at Mile Marker 69.8. Monitoring river, modeling, consultation and technical assistance remain ongoing with parishes and the State and indicate that the sill is doing its job. Thus, modeling yields projected impacts have been delayed by a month for the Algiers and Gretna intakes and other intakes, i.e., West Jeff, NO Carrollton, and East Jeff, appears not to have chloride impacts to those systems.

Steady efforts in monitoring and supporting for those intakes that are impacted and subjected to be impacted continue to remain vigilant to support those parishes and communities. These mitigation efforts include barging, tie-ins between systems, and reverse osmosis (RO) installation and operations. Continue collaboration with private sector, faith-based, social services, non profits and VOADs organizations remain engaged to support water inventory and/or unified communication and support to those vulnerable populations.

GOHSEP will continue to monitor to sustain inventory and support coordination with all federal, state and local partners until the incident ends.

Mississippi River Saltwater Intrusion WebEOC Incident 23-023



Points of Interest

-  Barrier
-  Saltwater Intrusion
-  Water Intake Point
-  River Mile Marker

Forecast Inundation Date

-  September 20, 2023
-  October 13, 2023
-  October 17, 2023
-  October 28, 2023
-  November 23, 2023
-  November 26, 2023
-  No Forecast



This map was developed by the Louisiana Governor's Office of Homeland Security & Emergency Preparedness using data from LDH, USACE, and USGS.

Contact:
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Last Updated:
10/5/2023 5:14 PM

**Toe Remains Steady
@ 69.8 mm**



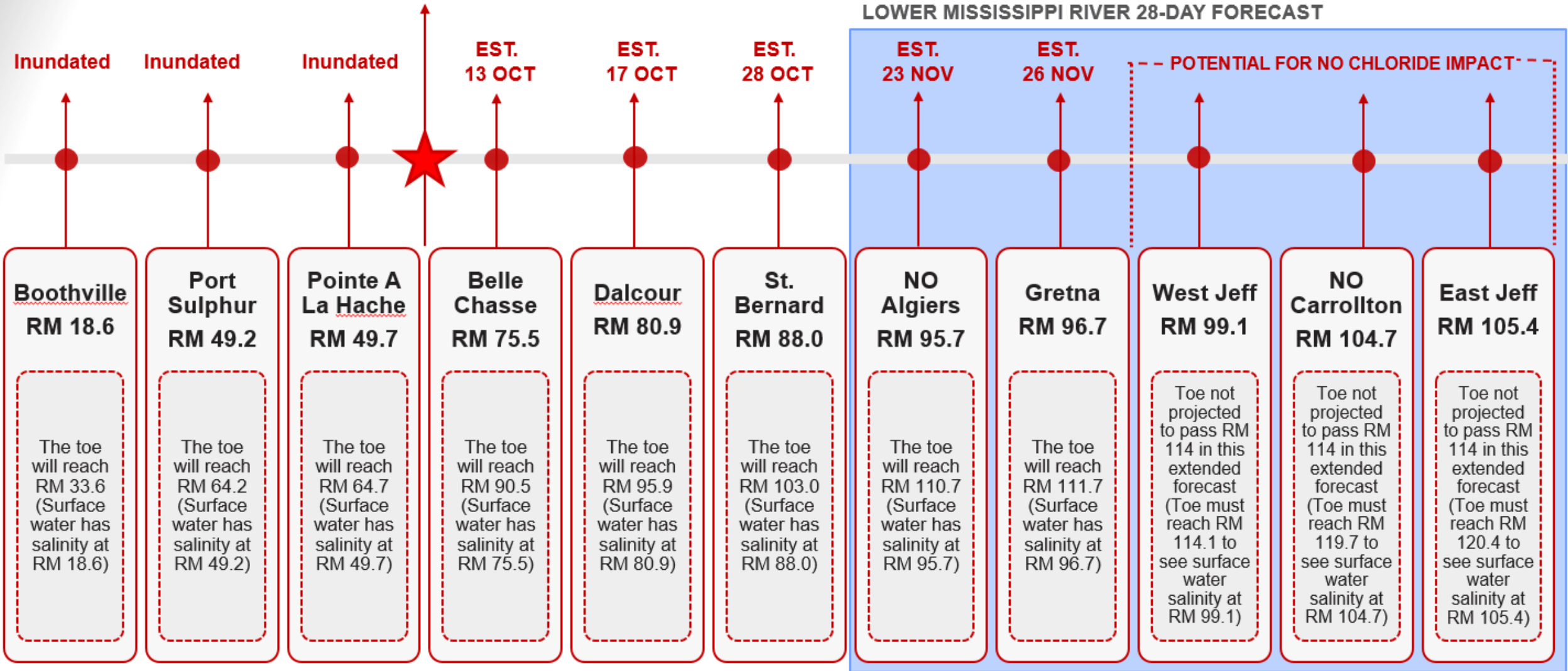
SALTWATER WEDGE TIMELINE WITH NOTCH SILL

TIMELINE REPRESENTS CURRENT NWS FORECAST, SURVEYED MOVEMENT OF THE SALTWATER TOE AND MODELED BENEFITS FROM AUGMENTING THE UNDERWATER SILL



SILL OVERTOPPED on 20 SEP

DATES ARE OUTSIDE OFFICIAL NATIONAL WEATHER SERVICE LOWER MISSISSIPPI RIVER 28-DAY FORECAST



PROJECTED TIMELINE IS ACCURATE AS OF THE NWS FORECAST FOR 02 OCT 2023 AND IS SUBJECT TO CHANGE.

AS OF 04OCT23

PLAQUEMINES PARISH

PARISH IMPACTS

- 23,303 Residents
- Naval Air Station Joint Reserve Base
- 11 Schools (5K students)
- 1 Prison (700 inmates)
- 1 Nursing Home (100 residents)
- 1 Urgent Care Clinic
- Citrus Farms and Livestock
- Chevron (reverse osmosis system is being installed by the facility)
- Reports of appliances damaged (water heaters, washers, ice machines, etc.)
- Reports of skin irritation and other health conditions from salt exposure

SALTWATER PROJECTIONS TO SURFACE INTAKE

- Saltwater inundated the Boothville water treatment intake at mile marker 18.6
- Saltwater inundated the Port Sulphur water treatment intake at mile marker 49.2
- Saltwater inundated the Pointe a la Hache water treatment intake at mile marker 49.7
- Saltwater is forecasted to reach the Belle Chasse water treatment intake at mile marker 75.5 by October 13



LIFELINE SUMMARIES – Food, Hydration, Shelter



LIFELINE SUMMARIES – Water Systems

CURRENT OPERATIONS

- Boothville RO on site and operational
- Port Sulphur barges on site and operational
- Belle Chasse RO requested and awaiting arrival. Barge is on site.
- Belle Chasse tie-ins at Orleans completed; will become operational as needed.
- Dalcour barge expected to arrive before the end of this week.
- Water distribution continues at Boothville Fire Department, Buras Fire Department and the Davant Community Center in Venice
- Parish continues to engage Community Action Agency and Council on Aging to support water distribution to vulnerable populations

FUTURE OPERATIONS

- Awaiting installation of additional reverse osmosis systems, equipment and contractors to support operations for production of potable water
- Once RO is in place, water distribution sites will be closed
- Power source is being assessed with collaboration from Entergy

ST. BERNARD PARISH

PARISH IMPACTS

- 44,258 Residents
- 13 Schools
- 1 Junior College (2,166 enrollment)
- 1 Prison (700 inmates)
- 1 Nursing Home
- 1 Hospital
- 2 Dialysis Centers

SALTWATER PROJECTIONS TO SURFACE INTAKE

- Saltwater is forecasted to reach the St. Bernard water treatment intake at mile marker 88 by October 28



LIFELINE SUMMARIES – Food, Hydration, Shelter



LIFELINE SUMMARIES – Water Systems

CURRENT OPERATIONS

- Barges are expected to arrive in 5-7 days; to begin utilization on 10/19
- RO units 10-15 days out; with 4-5 day setup once delivered
- Ongoing upgrades to infrastructure lines near proposed tie-in in Arabi to Orleans water system
- Continued participation in Joint Information Center (JIC) in Region 1 to provide communications to the citizens and stakeholders
- Conservation plan remains in place to reduce non-essential water usage

FUTURE OPERATIONS

- Awaiting installation of reverse osmosis systems, equipment and contractors to support operations for production of potable water
- Pending contract for additional RO units
- Power source is being assessed with collaboration from Entergy

ORLEANS PARISH

PARISH IMPACTS

- 376,971 Residents
- 85 Public Schools (47,462)
- 56 Private Schools (19,154 students)
- 27 Hospitals
- 14 Nursing Homes
- 28 Dialysis Center
- Jail (1,500 inmates)

SALTWATER PROJECTIONS TO SURFACE INTAKE

- Saltwater is forecasted to reach the Algiers water treatment intake at mile marker 95.7 by November 23
- Potential for no chloride impact forecasted at NO Carrollton water treatment intake at mile marker 104.7



LIFELINE SUMMARIES – Food, Hydration, Shelter



LIFELINE SUMMARIES – Water Systems

CURRENT OPERATIONS

- Algiers barges are expected to arrive in November
- Established a Joint Information Center (JIC) in Region 1 to provide communications to the citizens and stakeholders
- USACE and parish working on intake project further up river near mile marker 119 to maintain a continuous flow of fresh water
- Received bids from competitive procurement of contractor for piping project, which is on hold based on USACE new forecasted modeling

FUTURE OPERATIONS

- Continued engagement of all stakeholders to explore innovative solutions and remedies to reduce or eliminate impact
- Prioritizing efforts for intakes with potential impacts
- Coffer dam will be constructed in the river for Algiers; no bids on the initial procurement; will re-bid this work with plans to execute once contract is in place
- Carrollton: 48 inch pipeline project; initial bids thrown out; will re-bid next week but not proceed until forecast indicates work should start

JEFFERSON PARISH

PARISH IMPACTS

- 433,688 Residents
- 82 Public Schools (46,839 students)
- 56 Private Schools (18,935)
- 6 Tier 1 Hospitals
- 8 Tier 2 Hospitals
- Regional Trauma Center
- 10 Nursing Homes
- Prison (1,200 inmates)

SALTWATER PROJECTIONS TO SURFACE INTAKE

- Saltwater is forecasted to reach the Gretna water treatment intake at mile marker 96.7 by November 26
- Potential for no chloride impact forecasted at West Jefferson water treatment intake at mile marker 99.1
- Potential for no chloride impact forecasted at East Jefferson water treatment intake at mile marker 105.4



LIFELINE SUMMARIES – Food, Hydration, Shelter



LIFELINE SUMMARIES – Water Systems

CURRENT OPERATIONS

- Engaging LDH, VOADs, hospice, home health and faith-based organizations to see how they can assist with water distribution and messaging efforts
- Gretna conducting testing analysis to determine the potential of corrosion that could take place at specific analyte levels
- USACE and parish are working on intake project further up river near mile marker 115 to maintain a continuous flow of fresh water
- Completed the initial 5 mile increment of multiple lay-flat hose with pumps, using current contracts in place, and extended two hoses the full length to ensure permits to test functionality if needed this year or in the future on the Westbank
- Multiple, lay-flat hose with pumps project for the Eastbank is on hold based on USACE latest modeling forecast
- Established a Joint Information Center (JIC) in Region 1 to provide communications to the citizens and stakeholders

FUTURE OPERATIONS

- Working on identifying water distribution sites.
- Working on tie-in at Gretna from West Jefferson to support additional water needs
- Scheduling testing of the Westbank flat piping efforts as project is complete
- Bargaining dates for Gretna are being reassessed based on new timeline