



Saltwater Intrusion – SITUATIONAL REPORT

12 October 2023 – 10:30 am

Incident Snapshot

State Declaration: 154 JBE 2023

WebEOC Incident: 23-023 Saltwater Intrusion – Region 1 – Jun

Activation Level: 3 – Partial Activation

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.

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

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 | |

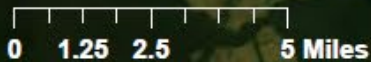
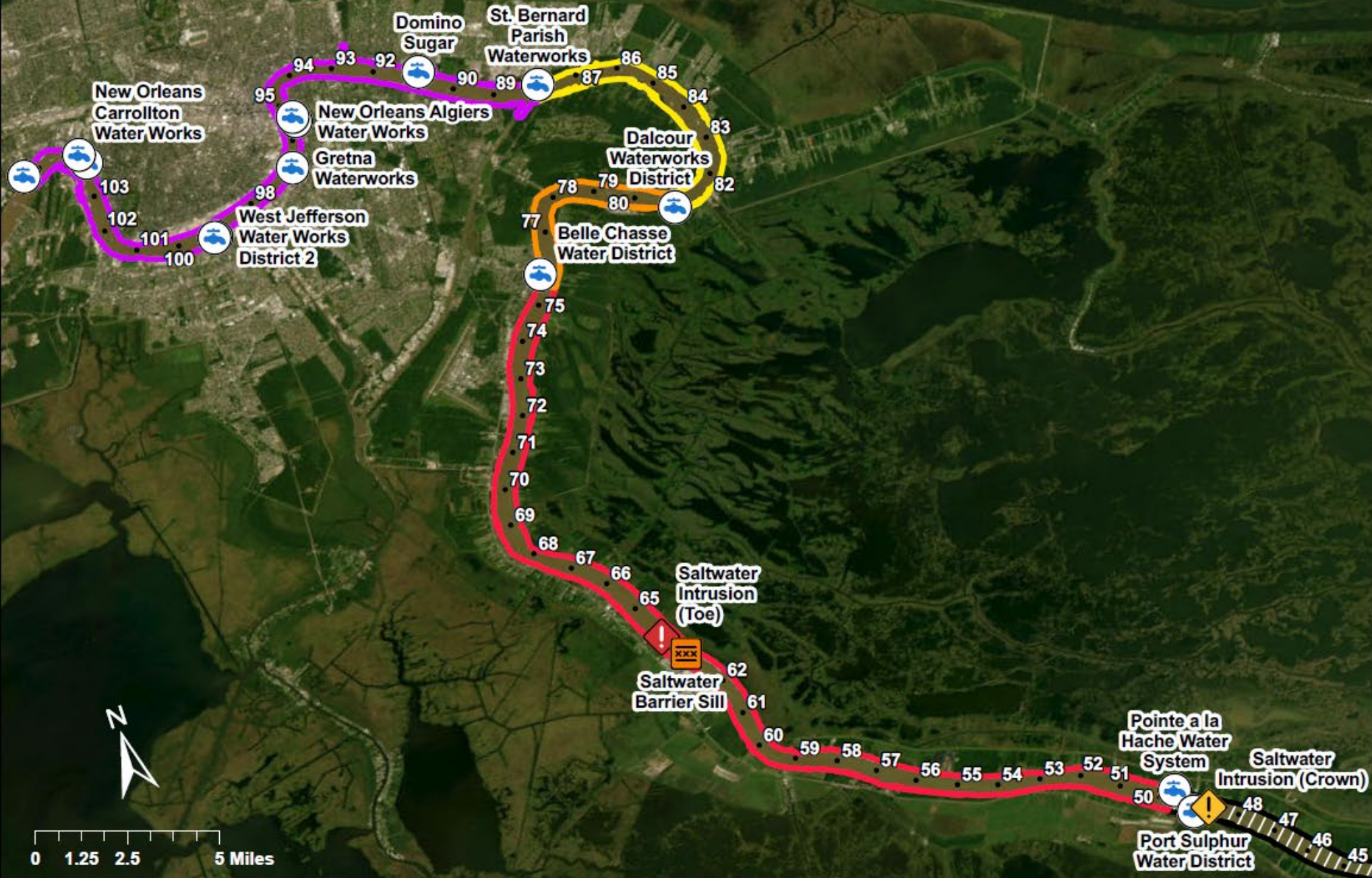
USACE continues to support multiple efforts to provide additional mitigation and technical assistance to maintain potable water within the parishes. Construction of an underwater sill in the Mississippi River at Mile Marker 64 to slow saltwater intrusion is 100% complete. The saltwater wedge toe is currently located at Mile Marker 63.8. River monitoring, modeling, consultation and technical assistance remain ongoing with parishes and the State and indicate that the sill is effective. Recalculation of the progression timeline is ongoing by USACE. LDH has a plan in place to monitor drinking water as chloride levels less than 250ppm can impact distribution lines.

Future Operations

Steady efforts in monitoring and support for those intakes that are impacted and subject to be impacted are ongoing to support parishes and communities. These mitigation efforts include barging, tie-ins between systems, and reverse osmosis purification units (ROPU) installations and operations. Continued collaboration with private sector, faith-based, social services, non profits and VOAD organizations remain engaged to support water inventory, unified communication, and support for vulnerable populations. USACE will continue to receive updates from NWS concerning river stage forecast.

GOHSEP will continue to monitor the situation to maintain 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 (Crown)
- Saltwater Intrusion (Toe)
- Water Intake Point
- River Mile Marker

Forecast Inundation Date

- September 20, 2023
- October 27, 2023
- November 1, 2023
- November 8, 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.

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Last Updated:
10/12/2023 9:14 AM

Location of Toe: 63.8



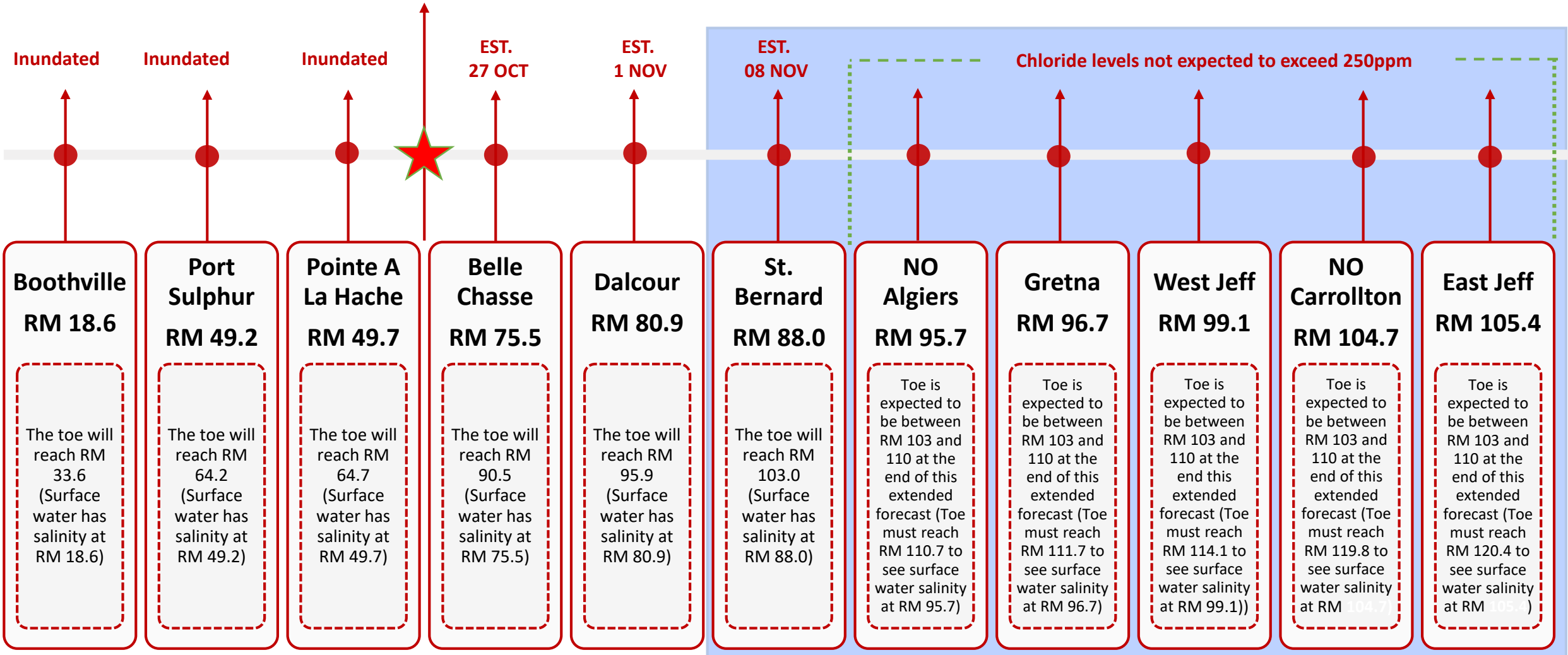
U.S. ARMY

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



PROJECTED TIMELINE IS ACCURATE AS OF THE NWS FORECAST FOR 09 OCT 2023 AND IS SUBJECT TO CHANGE.

AS OF 10OCT23

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 27
- Saltwater is forecasted to reach the Dalcour water treatment intake at mile marker 80.9 by November 1



LIFELINE SUMMARIES – Food, Hydration, Shelter



LIFELINE SUMMARIES – Water Systems

CURRENT OPERATIONS

- Boothville ROPU currently not operational and under repair
- Port Sulphur ROPU is utilizing generator power until Entergy can provide support
- Point a la Hache ROPU is in the testing process; will become operational once complete
- Belle Chasse ROPU arriving 10/13
- Belle Chasse tie-ins at Orleans completed; Jefferson tie-in under construction
- Dalcour barge on site and waiting for electrical hookup before operational
- 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
- Ongoing Joint Information Center (JIC) efforts in Region 1 to provide communications to the citizens and stakeholders

FUTURE OPERATIONS

- Awaiting installation of additional reverse osmosis systems, equipment and contractors to support operations for production of potable water
- Once all ROPU is in place and operational, water distribution sites will be closed

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 November 8



LIFELINE SUMMARIES – Food, Hydration, Shelter



LIFELINE SUMMARIES – Water Systems

CURRENT OPERATIONS

- Barging contract complete and awaiting arrival
- Cooperative agreement complete between parish and USACE to provide ROPU units
- Cancelling order for third ROPU based on updated timeline
- Tie-in to Orleans has been indefinitely postponed due to lack of pressure to push water and distribution line components
- Ongoing Joint Information Center (JIC) efforts in Region 1 to provide communications to the citizens and stakeholders

FUTURE OPERATIONS

- Pursuing a plan to utilize water tankers to support cooking and cleaning at schools
- Power sources are 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

- Potential for no chloride impact forecasted at Algiers water treatment intake at mile marker 95.7
- 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

- Lowered their EOC activation level to 3, with continued active monitoring of situation
- Algiers water system continuing preparation efforts due to expected elevated chloride levels
- Ongoing Joint Information Center (JIC) efforts and preparing to hold town hall meetings to discuss situation with public

FUTURE OPERATIONS

- Planned intake further up river has not begun as intrusion timeline changes are being monitored
- Developing a plan to begin testing distribution lines to gather baseline data on corrosion and leaching

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

- Potential for no chloride impact forecasted at Gretna water treatment intake at mile marker 96.7
- 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

- Continued progress of USACE and parish intake project further up river near mile marker 115 to maintain a continuous flow of fresh water
- Completed tie-in at Gretna from West Jefferson to support additional water needs
- Engaging LDH, VOADs, hospice, home health and faith-based organizations to see how they can assist with water distribution and messaging efforts
- Ongoing Joint Information Center (JIC) efforts in Region 1 to provide communications to the citizens and stakeholders

FUTURE OPERATIONS

- Barging dates for Gretna are being reassessed based on adjusted intrusion timeline
- Plan on using 5 gallon water containers continually refilled and transferred to schools for cooking and cleaning