City of Jackson Water Crisis
Incident Command Brief
September 4, 2022

INCIDENT OVERVIEW: The City of Jackson Surface Water System was impacted by recent flooding. Both the O.B. Curtis and J.H. Fewell water treatment plants had reduced water output that created pressure problems in the system. The City lacked sufficient pressures in some areas of the City to sustain adequate access to flush toilets and maintain optimal disinfection for drinking water. Both O.B. Curtis and J.H. Fewell water treatment plants lack sufficient Class A Operators and maintenance staff.

TREATMENT FACILITY STATUS:

- **O.B. Curtis**
  - Conventional Treatment Plant:
    - Authorized for **25** million gallons
    - Capacity of **18.7** million gallons
    - Producing **18.70** million gallons
  - Membrane Treatment Plant:
    - Authorized for **25** million gallons
    - Producing **8.42** million gallons
- **J.H. Fewell**
  - Authorized for **20** million gallons
  - Potential flex to **30** million gallons
  - Producing **19.69** million gallons
- Total:
  - City of Jackson: **46.81** million gallons

- **Tank/Well Status**
  - As of 1610HRS 9/4/2022, zero city tanks are holding water at low levels and the city PSI was operating at 82.48 PSI (O.B. Curtis 86.4 PSI). According to the city engineer, the bare minimum city PSI should be

operating at 65PSI. The Chastain tank will be the first tank to fill of the tanks supplied by O.B. Curtis and Riverside tank will be the first fill of tanks supplied by J.H. Fewell. Suncrest tank is at 3.35ft or at critical levels as of 1610HRS but is showing signs of improvements that has not been there in last three (3) days. The Byram tank, according to O.B. Curtis staff, is out of service and valved off.

- **Surface Water Tank Levels** (these levels are for comparison purposes only. SCADA are located at different elevations)
    - Chastain: 33.9 ft.
    - Elaine: 23.5 ft.
    - Forest: 34.1 ft.
    - Livingston: 29.5 ft.
    - Lynch: 30 ft.
    - Magnolia: 34.3 ft.
    - Northwest: 23.2 ft.
    - Riverside: 36.4 ft.
    - Suncrest: 11.4 ft.
    - Presidential Hills: 30.90 ft.
    - Fortification/Mills Street: 30.72 ft.

- **Well System Tank Levels**
    - Cedar Hills: 28.6 ft.
    - Hwy. 18: 36.2 ft.
    - Spring Ridge: 50.9 ft.

CURRENT AND PLANNED OBJECTIVES:

- Identify and remove restriction in the ammonia water line
    - Improve sludge transfer and removal process
    - Continue ammonia transfer from leaking tank
- Improve O.B. Curtis plant processes, including process control

PERSONNEL DEPLOYED TO O.B. CURTIS:

- **MEMA: 8**
- **MSDH: 7**
- **CITY OF JACKSON: 8** (not including regular O.B. Curtis personnel)
- **EPA: 1**
- **USACE: 3**
- **FEMA: 1**
- **MDEQ: 2**

OBJECTIVE UPDATES:

AMMONIA TANK:

- Investigate accuracy of volume gauges on both tank #1 and tank #2
- Approximately 3,400 gallons of liquid product transferred from tank #1 to tank #2
- Needle valve on tank #1 is leaking; will be replaced but tank will remain out of service
    - Needle valve was replaced; all anhydrous ammonia removed; offline; awaiting scope of work for overall repair and upgrade
- Contractors having difficulty getting pressure in tank #1 to zero; possibly 11% water left in tank

RURAL WATER EMERGENCY ASSISTANCE COLLABORATIVE:

- COPIAH COUNTY RURAL WATER – On Site (09/04/2022; 10:15:00 CST)
    - Two (2) ¾ inch quick connect placed on bulk tank lines

- FLORIDA TEAM A-TEAM 2-MAN TEAM – Arrived (09/02/2022; 08:00:00 CST)
    - Established liquid soda ash feed pre-oxygen basin
    - Polymer injection (minor adjustments)
    - Attempting to restore automation to polymer injector
    - Provide technical assistance on fire hydrant flushing

- GEORGIA RURAL WATER & MONROE, GA “CLASS A” MEMBRANE TEAM
    - Assured flow amounts were correct on conventional side; numbers were correct
    - Ran jet-line from Equalization Basin to “T” in mainline; jetted past “T” yet still restricted water flow (sludge handling facility)
        - Still restricted water flow, need snake camera to determine problem
        - Fixed two (2) valves in membrane plant
            - Approximately five (5) to six (6) remaining
            - Need electrician to assist with high service pump – Georgia electrician arriving tomorrow

- MISSISSIPPI RURAL WATER ASSOCIATION
    - Electricians arrive on Tuesday (09/06/2022)
    - Design started for Bio-directional bore for ammonia carrier feed line
    - Confirmation of location of ammonia carrier feed line
    - Project Manager will arrive on scene (09/06/2022)

- LOUISIANA DEPARTMENT OF HEALTH
    - Conducted pH testing of raw water intake
    - Gathered info from O.B. Curtis Operator team
    - Reviewed SOP’s
    - Validated turbidity meters
    - Noted two (2) out of four (4) polymer mixers working
        - Vibrations of one (1) polymer mixers suggest failure in future
    - Working on operator SOPs to assist with running the plant

USACE:

- Assessment of J.H. Fewell to understand sludge removal needs

OTHER ACTIONS TAKEN:

- Ammonia Water Line
    - Ditch Witch on scene to assist – Arrived (09/04/2022; 10:37:00 CST)
- Walk through assessment of Conventional and Membrane treatment plant to address daily priorities and needs
- Bulk Tank Liquid Soda Ash
    - Two (2) ¾ inch hot taps placed on bulk tank lines
- All 6 trains are running for the membrane system