



CITY OF LAKE JACKSON  
PRESENTED JUNE 21, 2021

Before and After the  
Boil Water Notice of  
June 2021

# Where are all of the City Water Towers located at?

<https://www.google.com/maps/d/edit?mid=1uDhXk8btfa362CKC1QAlk1mWTNDq3e9q&usp=sharing>

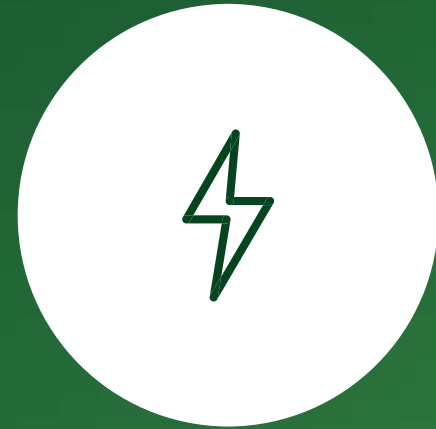
**\*\*Pull up google map\*\***

## WHAT HAPPENED ON JUNE 19 ?

- Around 6:45 am an equipment failure of a ground -fault circuit interrupter resulted in loss of power to the communication system at Ag Water Tower
- Between 6:45am and 2pm, text alerts were sent by the SCADA system to the on-call employee. When it received no answer, it alerted the next person in line (the on-call Waste Water operator) via text. With no answer there either, it emailed the Utilities Superintendent who was on vacation and did not see it
- The Ag Tower, due to its efficient geographical location, is used to turn the entire water system off and on to ensure the system is maintaining set pressure levels. Therefore, this loss in communication led to all tower levels being reduced and not refilled until manually corrected by the Water Operator, which did not happen until 2pm
- The water pressures got low enough at all towers (below required 20 PSI), that we issued a precautionary boil water notice for all of Lake Jackson

# What will we do to ensure this doesn't happen again?

Issue 1: Equipment failure  
that created alerts



IN THE FUTURE

Solution 1: Make towers independent of one another

- SCADA update to allow towers to override on their own if needed
- Add voltage monitors
- Remove ground-fault circuit interrupters



IN THE FUTURE

Solution 2: Add or replace generators/battery options

- Replace generators at Beechwood & Oak
- Add Ag generator OR explore UPS backup battery options
- Add discharge pressure monitors

Issue 2: Human -error of  
not answering alerts



ALREADY COMPLETE

Solution 1: Implement new on-call procedures

- Procedural change to ensure availability of on-call person by limiting weekly hours scheduled



IN PROGRESS

Solution 2: Revise alert system procedures

- Adding SCADA alert phone calls
- Reorganizing & adding PD dispatch to alert list

# Is this related to the chlorine conversion process happening right now?

We are no longer on a boil water notice as of 8:30 a.m. on Monday, June 21. The results of 35 water samples have showed that the system is clear and safe for normal usage. However, we do remain under the free water conversion process, which is independent from the boil water notice. The Brazoria Water Authority (BWA) performs the free chlorine conversion for two weeks every 6 months to help keep our water clean. The process will continue until June 24. Some residents have and may continue to notice a heightened chlorine smell during this time. We don't do this process alone. BWA provides water to other cities around us as well so we all go through this conversion together.



# What has been done to date?

SCADA call out procedures have been improved.

The new emergency alarm voice dial out system is in operation.

GFCI outlets have been replaced at all 17 water sites.

Replace UPS back-up at Agg Tower.

New logic programming allows use of backup towers.

# Water System Call List for Alarms

## Callout Process

- We have increased the amount of personnel on the normal alarm list.
- We have also selected alarms that will be considered emergency and now have a phone call-out instead of the normal message. The calls will go down the list every time there is no acknowledgement in 10 minute intervals.
- This emergency list of callouts also has the Lake Jackson PD on the list, which is staffed 24/7.

Name	Phone Number
On Call Operator	979-482-4823
Hector Renteria	979-285-4032
WWTP On Call	979-285-4732
Crew Leader On Call	979-285-7875
Maintenance Foreman	979-482-3534
Collections & Distribution Foreman	979-248-3246
Chief WW Operator	979-482-7551
Debbie Webb	979-482-4821
Sabrina England	979-480-6258
Lake Jackson Police Dispatch	979-415-2700
This order will be used for alarms that need to become phone calls	

# Standard Operating Procedure for Police Dispatch

## ► Basic Overview:

- The Water Treatment Plant SCADA system is a monitoring device designed to send out an alarm when there is a failure in the water distribution system. This sends early warning alarms that an adjustment is needed to make the system run as designed for water quality and compliance issues.
- The system can send out a text message for alarms that are normal/priority. The system can also send out an actual voice call for emergency alarm notifications.
- There is a list of individuals that can receive these text and phone call alarms. (See attached list) Certain actions must be taken when an alarm is received.

## Standard Procedures:

- Phone Call – THIS IS AN EMERGENCY ALARM it will be from 312-626-0064 (Chicago) VT SCADA
- When you are receiving a phone call it is because the alarm is not acknowledged. You are to assume that nobody knows this alarm has come on.
- Immediately call these phone numbers in the following order.
- Move thru the list until you have contacted someone on this list.

Name	Phone Number
Bryan Sidebottom	979-482-4145
Modesto Mundo	979-482-3525



# What is happening next?

## Short-Term

- Adding discharge pressure monitors at both WTP's.
- Replacing all UPS back ups.
- New UPS back up options for off sites.

## Long-Term

- Replacing generators at Oak Drive and Beechwood WTP's.
- Add voltage monitors.