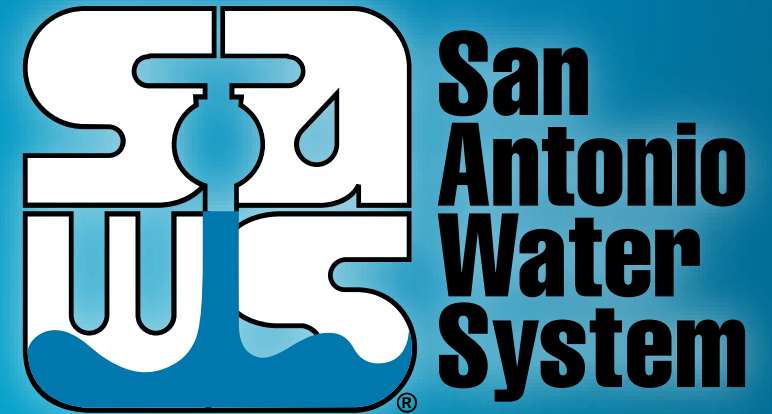


SAWS Resiliency Briefing

Steve Clouse
Chief Operating Officer

Municipal Utilities Committee Meeting
November 29, 2022



MAKING SAN ANTONIO
WATERFUL



Community Emergency Preparedness Recommendations

Recommendation	Status
#1	Complete
#2	Complete
#3	Complete
#4	Complete
#5	Complete
#6	Complete
#7	Complete
#8	Complete
#9	Complete
#10	Complete
#11	Complete
#12	Complete
#13	Complete
#14	Complete
#15	Complete
#16	Complete

All 16 recommendations have been addressed.

Remaining from last update: Recommendation #12

Increase the number of agents available to take calls during an emergency in lieu of automated machines. Identify critical staff to communicate with the public.

12.A Consider 3rd party live chat services that can be provided critical messaging and provide base intake tasks for customer concerns.

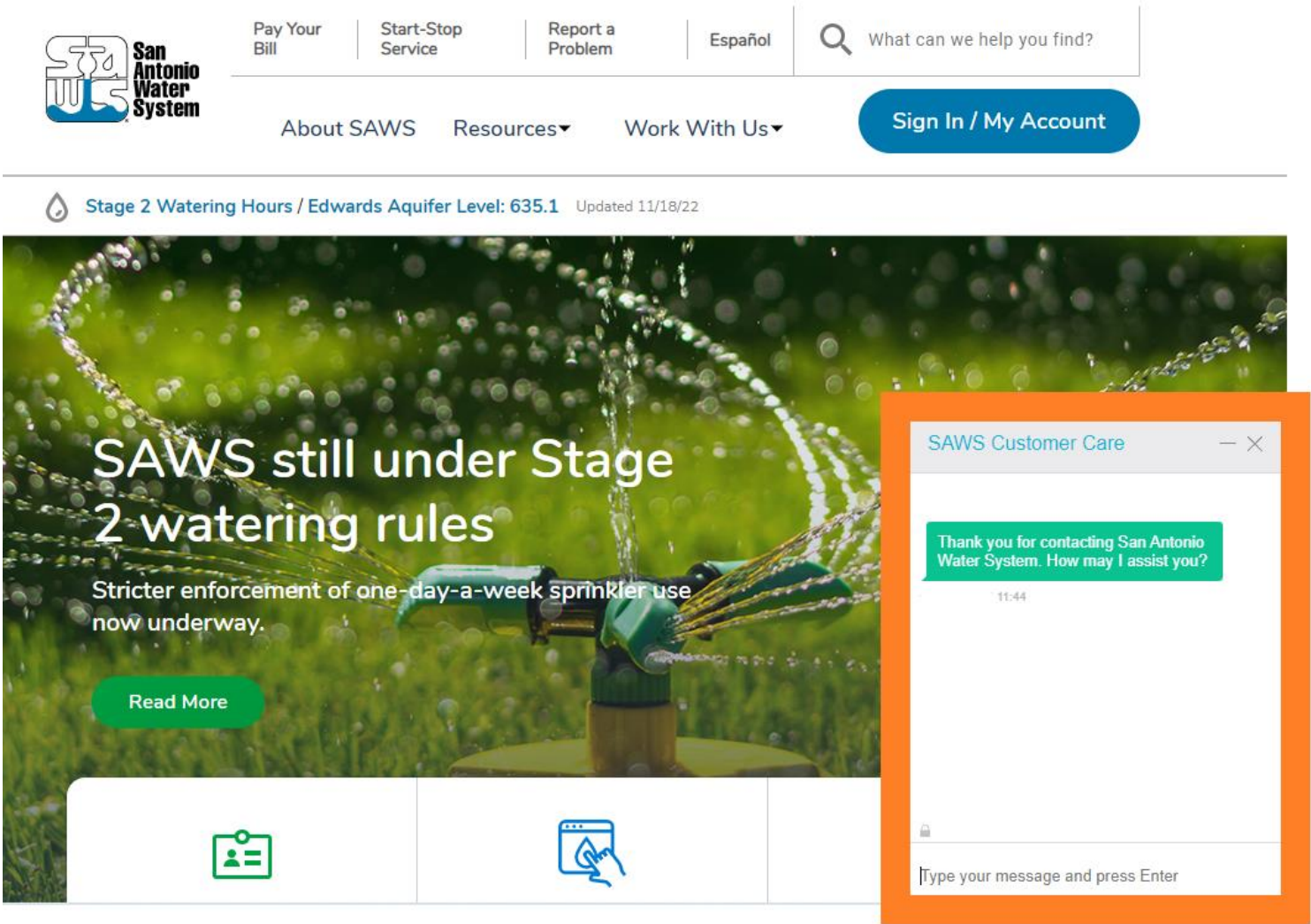
12.B Consider how 311 operators can be integrated with this solution.

12.C Develop a contingency plan for instances when outages disrupt local customer service. Consider 3rd party services based outside of San Antonio being activated in case of emergency.

SAWS has deployed a real-time, self-service outage map that can be utilized during emergencies. SAWS has chosen to implement automated answering systems that will be capable of handling large volumes of inquires and improved messaging through the use of AI software.

Enhanced Customer Service

SAWS is implementing automated answering systems that will be capable of handling large number of inquiries and improved messaging through the use of AI software.



Water System Status - On-Line Maps

Due to prolonged periods of record heat and extreme drought conditions, SAWS is experiencing an unprecedented number of water leaks or main breaks. Our staff are working 24/7 to safely repair leaks and main breaks, taking necessary heat-related precautions. In some cases, we may not be able to provide an exact timeframe to make repairs. Thank you for your patience.

▲ Active Water Outages

11

Customers Impacted by Active Outages

325

Total Customers Served

570723

Outages (When Zoomed Out)

U.S. Weather Reports

Find address or place

Outage Information

Duration (hrs)	4
Start Date	11/18/2022, 8:04 AM
Cause	Mainbreak - Water Outage

Zoom to

Report Water Outage

ADDRESS FOUND
00409 WHITE AVE, SAN ANTONIO, 78214

Success! We've found your address. Please provide a few more details to finish submitting your water outage report.

* Required fields.

* At least one field is required.

FIRST NAME*

LAST NAME*

PHONE NUMBER*

EMAIL ADDRESS*

TELL US ABOUT YOUR ISSUE OR CONCERN*

Please include any information that could help us identify the source and/or size of the outage, such as water running down the street, neighbors also without water, etc.

Continue

New web-based platform for customers to get status and report water service outages.

<https://outagemap.saws.org/OutageMap>

SAWS Resiliency Briefing

CPSE and SAWS Collaboration

SAWS and CPSE have worked together to establish specifications and site designs for natural gas generators

SAWS will procure and install the generators

- Anticipated total capital cost for the acquisition and installation is ~\$97M

CPSE will operate and maintain the generators

- Providing SAWS resiliency service - electricity when there is an CPSE system outage
- Allows CPSE to operate the generators at any other time that CPSE deems beneficial

A Joint SAWS-CPSE Board meeting was held on September 21, 2022 approving a tolling agreement for natural gas generators



Natural Gas RFP and Diesel Site Summary



- 15 Stations will use generators for distributed energy benefit
- Modular generators
- 4 Firms submitted proposals
- SAWS Board consideration for award in January, installations 2024 and 2025
- Diesel systems will begin installation after 2025

Bulk Water Distribution Plan



Coordination with
SAPD and COSA
OEM on traffic plans.

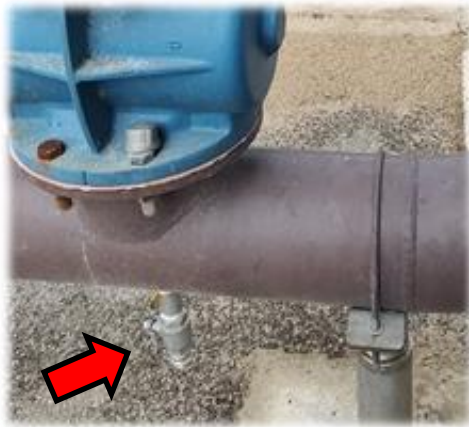
Emergency water
distribution will not
be necessary after
generator
installations.



System Weatherization – Potable Water

Ready

- Teams identified freeze vulnerabilities and implemented preventive actions.
- Exposed assets at water facilities were securely wrapped with 7/16in.thick foam padding and 12mil black poly wrap.
- Most vulnerable,critical assets were insulated and protected with electrical heat trace tape.



System Weatherization – Wastewater

Insulation Protection

Treatment Plants were insulated with foam padding throughout the facilities.



Asset Protection Response - Wastewater

Additional Protection Methods



Asset Protection Response

Inventory



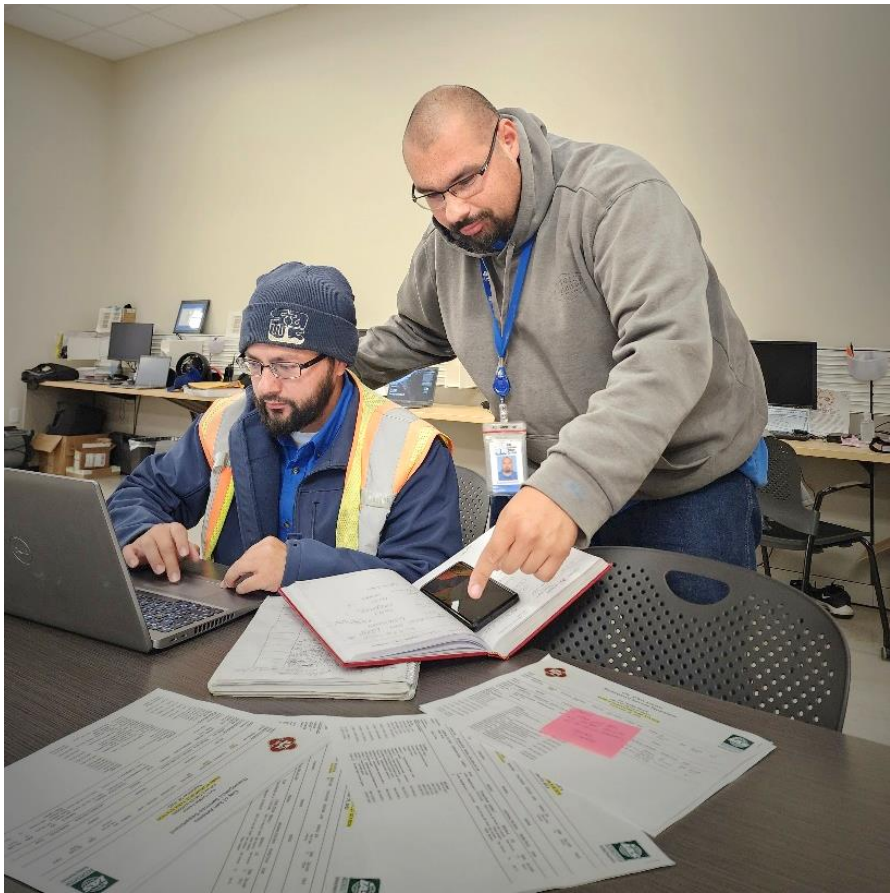
Added inventory storage sites to house additional heat protection equipment.



Asset Protection

Work Orders & Documentation

Created yearly preventative maintenance (PM) work orders for 54 critical sites to be initiated every fall to be prepared for the winter season.



Additional Freeze Protection Steps

Staff Protection



“Head to toe” improvements in warehouse inventory for field staff

Protection measures to help navigate the city safely.

- **Tire Chains**
- **Auxiliary Fuel Tanks**
- **Diesel Fuel Additives**

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