



MEMORANDUM

TO: Mayor and Council Members

FROM: Rey Arellano, Assistant City Manager

DATE: January 19, 2022

SUBJECT: Update on Disaster Preparations and Winter Storm Uri After Action Tasks

The purpose of this memo is to provide an update on actions taken to prepare the City for complex, cascading disasters and the strategy to continue addressing Winter Storm Uri-related after action tasks.

The Winter Storm Uri After Action Corrective Action list identifies a myriad of tasks stemming from a large-scale natural disaster layered on top of a year-long global public health crisis. Winter Storm Uri occurring at the same time as the COVID pandemic served as a catalyst for new tasks and a renewed, holistic disaster preparedness approach to serve our quickly growing community.

City-wide Approach

Continuous improvement, especially around disaster and emergency response, is a regular practice by City staff, and most certainly by emergency management staff. After an emergency, all involved departments undergo their own internal departmental review and participate in a cross-departmental After Action review led by the Homeland Security and Emergency Management (HSEM) Department. An After Action Report (AAR) is prepared and shared with all departments to prioritize specific tasks using an “all-hazards” lens.

To oversee citywide implementation of AAR tasks, the City Manager established a core team of executive leaders from:

- City Manager’s Office
 - Strategic Outcome: Safety
 - Strategic Outcome: Health & Environment, and Culture & Lifelong Learning

- City Departments
 - Austin Energy (AE)
 - Austin Resource Recovery (ARR)
 - Austin Water (AW)
 - Homeland Security and Emergency Management (HSEM)
 - Parks and Recreation Department (PARC)
- City Offices
 - Communications & Public Information Office (CPIO)
 - Equity Office
 - Resilience Office (once established)
 - Sustainability Office

The Core Team considers the following information in its decision-making process:

- City of Austin After Action Report
- Austin Energy After Action Report
- Austin Water After Action Report
- Questions Raised during After Action Report Presentations to Council
- Status of previous After Action Reports
- Auditor's Report
- Winter Storm Uri Review Task Force Report
- Pandemic Equity Committee Report
- FY22 Budget Riders
- Resolutions since 2019 related to Resiliency Hubs

Priority initiatives have been identified and the Core Team is in the process of designating lead staff to address each initiative. The Core Team is also focusing on clearly defining essential City-led response efforts and identifying service areas where community partners are better positioned to meet community needs.

The Homeland Security and Emergency Management (HSEM) Department will be tracking all information, providing regular updates, and establishing a public facing portal in the interest of transparency.

Preparations Around the City

While HSEM, Austin Energy (AE), and Austin Water (AW) are certainly key departments involved in the after action response, disaster preparedness relies on the entire organization being prepared and coordinated. HSEM, AE, and AW provided brief updates included in Appendix A, B, and C respectively. However, all departments are taking steps to be better prepared for the next emergency.

This section highlights completed tasks by key departments in preparation for future disaster responses. Since this memo will not be able to capture the depth of work that has been accomplished, the departments identified below offer a snapshot of the work being done behind the scenes to better prepare the organization for the next disaster.

- **Community and Technology Management (CTM)** has improved network infrastructure.
 - CTM purchased a mobile generator that can be deployed to serve as a critical network hub.
 - Installation of generators for Manchaca and Carver Libraries have also been approved.
 - Power requirements are being assessed for the two critical network hubs impacted by the storm.
 - Power assessments have been completed for major network hubs that were not impacted by the winter storm to identify backup power requirements.
 - To support the primary radio controller site at Decker Lane, CTM wireless communications purchased a portable generator, expected to arrive this week.
 - Three generators are being acquired and will be placed at critical sites for added fuel support in an extended power outage.
 - Established a new radio microwave link between Decker and Four Points radio network controller sites for added radio frequency coverage in the western area of the City/County.
- **The Combined Transportation, Emergency, & Communications Center (CTECC)** is now storing four days of meals and drinking water on site. In coordination with Fleet Services, CTECC is identified as a priority location for fuel resupply to backup generators. Staff purchased Compact Deployable Communications unit that uses satellite communications technology to create a Wi-Fi and Cell phone site at CTECC. Participating in Citywide RFP for hotel services during times of disaster to ensure rooms are available for staff working extended shifts on operations floor. Collaborated with Austin Energy to install redundant power distribution for CTECC facility.
- **Public Works Department (PWD)** added snow removal from critical streets to their workflow and added streets and bridges for clearing or sanding that access Austin Water treatment plants, APD/Fire/EMS stations, hospitals, and more. PWD have coordinated with other departments to provide fuel and mobile fuel units that could respond during emergency events. Tire chains were purchased for vehicles and equipment.

- **Austin Transportation Department (ATD)** completed required FEMA ICS training courses and multiple team members are pre-qualified to work out of CTECC. ATD worked with Fleet Services to purchase additional road traction devices and ordered supplies to support staff in the event that staff must stay at ATD facilities around the clock during a disaster.
- **Fleet Services** updated critical functions and policies. Fleet Services created a City-wide revised snow chain process and procedure for inventorying, order management, training, and installation. Fleet Services established strategic quarterly business meetings with Tier One vendors critical to supporting City operations in emergencies. Supervisors in Fleet Services have been issued ProCards to expand ability of staff to respond to emergencies.
- **Building Services Department (BSD)**, in support of other COA departments and to equip staff with the ability to keep City facilities operational, equipped all BSD on-call vehicles with tire chains. Through BSD's partnership with Fleet Services, all generators in BSD's portfolio have been topped off and switched over to the winter diesel mix to prevent gelling. BSD techs tested generator transfer switches across the portfolio to make sure they activate properly in the event of a power outage.
- **Parks and Recreation Department (PARD)** stationed containers with emergency management supplies in strategic locations for immediate shelter activation. PARD also identified strategic locations to station vehicles for future emergency responses and/or arranged for vehicles to be taken home during emergency preparedness to facilitate efficient activation.
- **Homeless Strategy Division of Austin Public Health** allocated funds from the American Rescue Plan Act to fund a temporary Emergency Plans Officer focused on implementation of recommendations related to mass sheltering and other services.

While addressing all AAR tasks from Winter Storm Uri is a tremendous undertaking, critical work is underway. With each day, the City of Austin is more prepared to respond in the face of disasters and is committed to supporting this community. For more information on this topic, please contact me or Elise Renshaw at Elise.Renshaw@austintexas.gov.

cc: Spencer Cronk, City Manger
CMO Executive Team

APPENDIX A.

Homeland Security and Emergency Management (HSEM) After Action Status Update

Homeland Security and Emergency Management (HSEM) synthesized tasks from all sources of feedback, worked with departments to create a prioritization mechanism, and will lead efforts to track tasks across the organization using a database that is currently in its testing phase. SPOCs from departments across the City will have access to add and update their tasks. A public facing portal is also being developed to provide transparency.

Since Winter Storm Uri, HSEM, in collaboration with other City departments, have bolstered the organization's ability to provide a tactical response and coordinate with community partners. For example:

- HSEM acquired low power AM emergency radio systems, and stocked up on safety equipment and supplies including safety shoes, lighting, tire chains, heater meals, bariatric cots, emergency water, blankets, and more.
- Shelter Mission Ready Packages have been staged at potential shelter sites across the city and are containers of shelter supplies for 75 individuals for four days
- HSEM recently conducted winter weather coordination meetings with Austin Disaster Relief Network (ADRN) and the American Red Cross.

City of Austin departments meet monthly during Emergency Management Department SPOC meetings and participate in valuable exercises to hone skills for reacting to disasters. Recent exercises and trainings coordinated by HSEM include:

- Virtual Emergency Operations Center (EOC) training for department representatives.
- Winter Weather Seminar held in November 2021 with City of Austin, Travis County, and partner agencies.
- Winter Storm Tabletop Exercise conducted in December 2021 with 150 high-level decision makers from the City of Austin and Travis County.
- Army Futures Command Drone Systems Evaluation Exercise December 2021.
- Sanding Operation Tabletop Exercise held in December 2021 conducted by City of Austin Public Works to evaluate plans and priorities and clarify roles and responsibilities.
- Scheduled Naval Postgraduate School Homeland Security Executive Seminar on wild land fire and cascading impact scenario (originally scheduled January 2022, postponed due to surge in COVID pandemic).

Future exercises and drills include:

- South By Southwest Special Event Tabletop Exercise February 2022.
- Cobalt Magnet 2022 Tabletop Exercise with the US Department of Energy February 2022.
- Austin FC Special Event Tabletop Exercise February 2022.
- DOD Functional Exercise March 2022.
- Severe Weather and Flooding April 2022.
- Cobalt Magnet 2022 Full Scale Exercise May 2022.
- Extreme Heat and Wildland Fire Seminar June 2022.
- Hurricane Sheltering Training and Drills June 2022.
- Austin City Limits Special Event Tabletop September 2022.
- Austin Travis County EOC Drill October 2022.

Additionally, the following completed activities serve to update and clarify emergency response actions and make information more accessible.

- City of Austin Emergency Operations Plan annexes updated.
- Implementation of the Austin/Travis County Accessible Hazard Altering System (ATCAHAS) October 2021
- Distributed estimating tool to City departments for personal protective equipment planning.
- Rolled out new WebEOC capabilities with training for resource requests and cost tracking.
- Created incident number and conducted training on tracking winter weather response activities in WebEOC.
- Established reporting code for winter weather incident cost tracking to use if needed.
- Developed Ready Central Texas campaign encouraging community preparedness and launched [Ready Central Texas](#) website.
- Made Ready Central Texas app enhancements, including an electronic winter preparedness brochure.
- Wrote SOPs for utilizing HSEM communications tools including Warn Central Texas, social media, email distribution lists, and other communication methods.

APPENDIX B.

Austin Energy After Action Status Update

Austin Energy's (AE) February 2021 Winter Storms After-Action Report identified 19 high level observations with 116 follow-up Actions. AE has continued to work on the follow-up actions identified in its report. Actions are being tracked and documented to ensure completion. All calendar Q2, Q3, and Q4 2021 items have been completed. As of January 12, 2022, AE has completed 64 of the 116 follow-up actions, with an additional 26 incorporated into on-going operations, and the remaining 26 items in progress.

As part of the follow-up actions detailed in its After-Action Report, AE seeks to increase the overall capacity of its Manual Load Shed portfolio in order to increase the probability that circuits can be rotated during a high magnitude ERCOT-directed load shed event. Initial capacity increases are being achieved by focusing on actions that will provide the greatest increases and can be achieved in the shortest timeframe.

These actions include streamlining the process for moving circuits from the ERCOT-reserved Under Frequency Load Shed (UFLS) to Manual Load Shed during an event, as well as developing a load curtailment program for eligible industrial and large commercial customers.

Reconfiguring circuits to move critical customers and allow cycling of non-critical customers has realized modest return. Three circuits were acceptable for reconfiguration. Analysis continues for additional circuits, but significant increases in load shed capability are not expected from this activity.

There has been interest in circuit sectionalizing which involves methods to split an electric circuit into sections and install motor-operated switches, usually on poles, so that the sections can be divided or "sectionalized." The concept is to use sectionalizing during an ERCOT-mandated load shed event for finer control of load shed and to aid in preventing circuit tripping when restoring power. In theory, critical customers could continue to be powered, while downstream parts of the circuit are turned off. However, this is dependent on the critical load customer being located near the head-end of the circuit, which is not proving to typically be the case. Additionally, sectionalizers are not intended for rotation, but rather for manual intervention, which limits their use.

Seven circuits are being analyzed for sectionalizing using manual intervention during an ERCOT load shed event. AE analysis estimates that building out full sectionalizing would take a minimum of five years and poses significant challenges, making it too costly in comparison to the amount of load shed potential it could realize with current technological capabilities.

APPENDIX C.

Austin Water After-Action Status Update

Austin Water (AW) has made considerable progress toward implementation of recommended actions from its internal After Action review and the citywide review sponsored by HSEM, based on priorities approved by members of the Water and Wastewater Commission.

Many completed actions increase overall utility resiliency and the ability to respond to complex, cascading events. Specific projects related to infrastructure will be incorporated into Austin Water's ongoing Capital Planning process for development and implementation, while others will be incorporated into ongoing operations and maintenance activities.

The utility's Emergency Response Plan has been revised to include an Extreme Cold Weather Plan and decision tools for activating the Incident Management Team during any type of emergency. Three additional FTEs in the Emergency Management Division are included in the approved FY 2022 budget to focus on emergency response, preparedness, resiliency and community engagement and the hiring process is underway. In-person Incident Command System training sessions were held in November and December 2021, with additional workshops planned in 2022.

Austin Water has completed preparations for the 2022 winter season at water and wastewater treatment plants. Damage from Winter Storm Uri, such as broken piping and valves, cracked basins, and damaged chemical feeds have been repaired. Inspections and preventative maintenance have been conducted and insulation of exposed piping is complete. Heaters, sand, and deicing fluids have been procured, as well as supplies to enhance treatment facility staff's ability to shelter in place. Going forward, Austin Water's standard operating procedures identify annual measures to protect infrastructure from freezing weather and temporarily pause non-critical treatment processes.

Austin Water has collaborated with Austin Energy to improve power reliability for critical water system facilities. At Ullrich Water Treatment Plant, fully automatic transfer on the Austin Energy side requires the replacement of manual transfer switches on two existing primary feeds and one existing backup feed. The work on the backup feed is complete and work on the two primary feeds is underway. Electricians are now stationed at Ullrich during normal business hours, and a plan has been developed to station electricians at other treatment plants. Wastewater treatment facilities have repaired generators and automatic transfer switches. Automatic power transfer switches have been replaced at Texas Plume and Scotland Wells wastewater lift stations, and valves were added to lines that drain groundwater that will automatically close when power is lost.

In addition to hardening activities at treatment plants, Austin Water has continued progress on a number of ongoing initiatives to enhance the long-term resilience of the water system infrastructure. Work continues to exchange customer meters to Advanced Meter Infrastructure (AMI) meters, with approximately 21,500 exchanged as of December 31, 2021. More than 2,000 water lines are being replaced in 60 subdivisions, with new stronger material less prone to breaks during freezing weather.

Austin Water has reviewed and enhanced public-facing communications to help the community prepare for freezing weather based on the lessons learned from Winter Storm Uri. Tip sheets and instructional videos were produced in six languages to advise customers how to shut off their water in the event of an emergency, as well as how to properly drip from faucets to protect their property. Meter box keys and hose bib covers have been distributed since early November 2021 at community events, branch libraries, and at COA Utilities Customer Service Centers. Emergency notifications for all water, wastewater, and employee-safety related emergencies through Warn Central Texas and the My ATX Water customer portal have been incorporated into communications plans.

Improvements in preparedness for Austin Water's Wholesale Customers are underway with the initiation of annual valve training exercises on emergency interconnect valves between AW and wholesale customer infrastructure in January of 2022.

Austin Water is also better prepared for community response in the event of an emergency and has improved multiple methods for delivering water to the community during water outages. Two potable water delivery trucks have been received and are available to provide bulk water delivery to the community, and AW maintains an inventory of 275-gallon refillable water totes and fire hydrant adapter kits that can be deployed. Austin Water has also increased its inventory of bottled water for distribution.