City of Austin
Office of the City Auditor

Audit Report

Disaster Preparedness
The City Was Unprepared to Respond to Winter Storm Uri

November 2021

The City was unprepared to respond to Winter Storm Uri largely because the City did not adequately anticipate or plan for a widespread or severe winter storm. While the storm was exceptionally severe, the City's lack of preparedness for Winter Storm Uri led to a less effective and disorganized response. Additionally, the City has not implemented many past recommendations that may have improved its response to the storm and has not historically prioritized disaster preparedness or community resilience. The City's disaster planning and preparedness efforts also do not ensure the City has adequate resources, including staffing and supplies, to respond effectively to complex disasters like Winter Storm Uri. While City staff who responded worked diligently to respond to the disaster, these issues placed tremendous strain on the staff who were available to address the many challenges the City faced as the storm intensified and infrastructure failed.

Beyond those challenges, the City did not communicate effectively with Austin residents in the days leading up to or during Winter Storm Uri, so residents were left without critical information that may have helped them stay safe. Additionally, the City's disaster planning and preparedness efforts are not equity focused. As a result, the City's response to Winter Storm Uri did not effectively serve all residents, including people experiencing homelessness, seniors, and other vulnerable populations.

Contents

Cover: Photos provided by the Office of Homeland Security and Emergency Management, September 2021.

Objective

Did the City's disaster planning and preparedness efforts position the City to respond effectively and equitably to Winter Storm Uri?

The audit scope included the City's response to the February 2021 winter storm and related disaster preparedness plans, including the response and preparedness efforts of multiple City departments. This audit did not review:

- Technical aspects of the City's infrastructure or private infrastructure in the City
- Response activities of other entities, such as school districts, counties, Capital Metro, the Electric Reliability Council of Texas, or the State of Texas
- Technical operations in Austin Water or Austin Energy
- City 911 or 311 call center operations

Background

This audit was conducted in response to a City Council resolution passed on March 25, 2021, which directed the Office of the City Auditor to conduct an audit of the City's response to Winter Storm Uri.

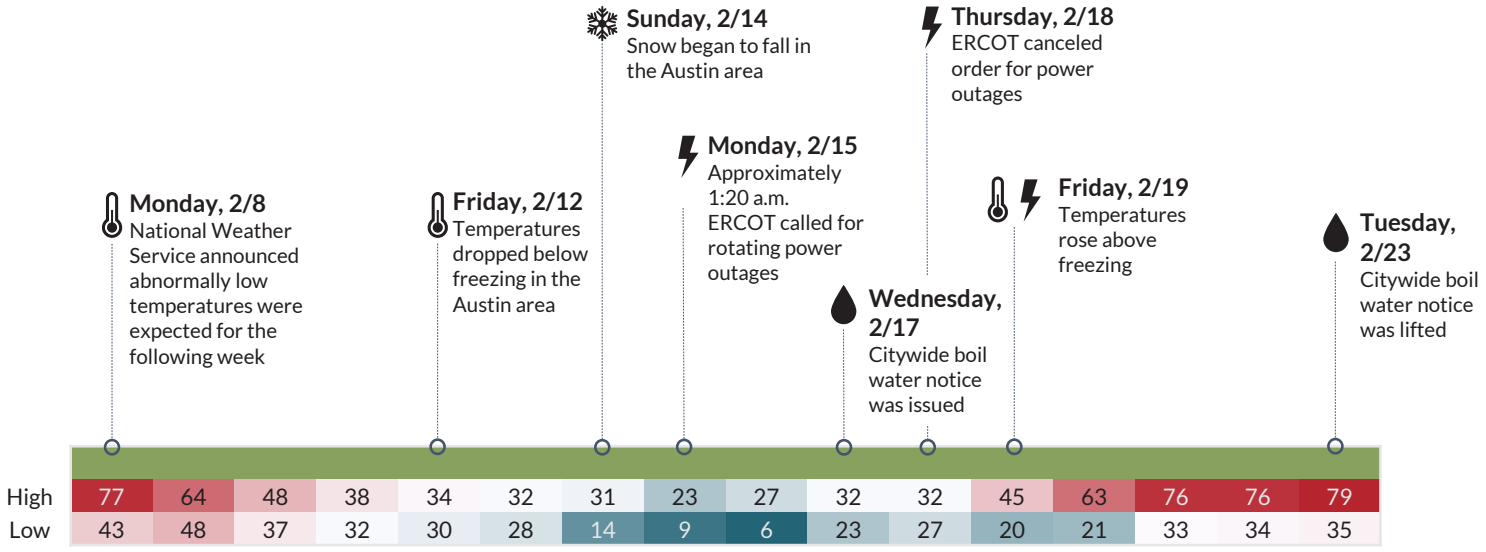
Winter Storm Uri

On Monday, February 8, 2021, the National Weather Service of Austin/San Antonio began warning residents of below-normal temperatures expected later in the week and into the following week. As the week progressed, warnings became more serious and wintry precipitation was predicted. By Friday, February 12, the National Weather Service issued a stern warning that it was time to prepare and temperatures dropped below freezing. By Sunday, February 14, the storm struck in earnest and snow began to fall in the Austin area.

ERCOT manages Texas's electrical grid. Austin Energy is the public utility responsible for getting electricity to homes in Austin.

Over the next several days Austin and the state of Texas experienced significant cascading impacts from the severe winter weather. By the early morning of February 15, the Electric Reliability Council of Texas (ERCOT) called for extreme energy conservation across the state leading to periods without electricity that lasted for multiple days. The requirement by ERCOT to initiate power outages to conserve energy was outside of the City's control and contributed to the cascading impacts of the storm. Additionally, several reports following the winter storm have indicated the failure of Texas's power grid could have been far more catastrophic if Austin Energy and other ERCOT participants did not comply with the outage mandates. Public water systems across the state were also affected and many implemented boil water notices, including Austin Water.

Exhibit 1: Critical Events During Winter Storm Uri



Source: Office of the City Auditor analysis of Winter Storm Uri events, July 2021

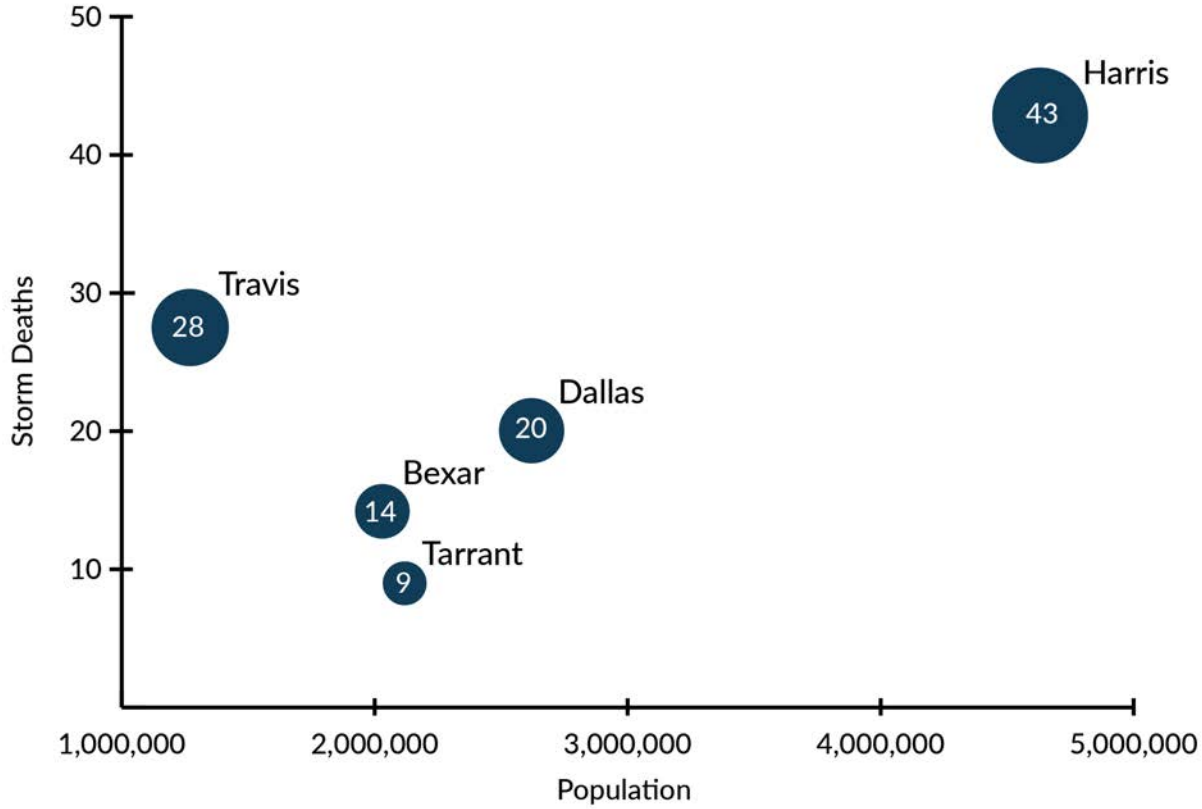
Pipes across the city froze or burst leaving residents without water or struggling with flooding in their homes. Many Austinites had to leave their homes, travel in unsafe conditions, and shelter in City-run warming centers and shelters or with friends and family. City staff responding to the emergency were also dealing with power and water outages, which

affected their ability to respond to the storm. Staff reported working on their cell phones while charging them in their cars. Additionally, the ongoing COVID-19 pandemic made the City's response to the emergency more challenging with the added risk of spreading infection.

Winter Storm Uri had wide-ranging impacts across the state of Texas. Jurisdictions were unable to share resources and coordinate as they normally would in a disaster. City of Austin staff responding to the emergency were also personally affected by the storm. Staff were experiencing their own power and water outages and managing family responsibilities in their homes. In some cases, City staff were unable to travel to work to assist with the City's response to the winter storm.

The impact on the community was significant, especially for seniors and people experiencing homelessness. Travis County had the second most deaths in the state after Harris County. Travis County had more deaths than both Bexar and Dallas counties despite being less populated.[1] Twenty-one deaths were within Austin city limits.[2] Sixteen of these deaths involved hypothermia as either the sole cause or a factor in the death. People who died tended to be older than the general population. About 64% of people who died were older than 60.[3] Additionally, four people who died were experiencing homelessness.

Exhibit 2: Travis County lost more lives than more populous counties



Source: Office of the City Auditor analysis of data from the Texas Department of State Health Services, August 2021

[1] Based on data from the Texas Department of State Health Services.
[2] Based on OCA analysis of deaths resulting from the winter storm.
[3] Individuals over 60 make up 18% of Austin's population.

City of Austin Emergency Management

The City has adopted the National Incident Management System (NIMS), which is a standardized approach to responding to emergencies and disasters. NIMS provides a framework for preparing for, preventing, responding to, and recovering from disasters. The City's emergency operations are based on NIMS standards.

In response to Winter Storm Uri, the City and Travis County activated the Austin/Travis County Emergency Operations Center (EOC) on February 12. The EOC serves as the hub for communication and coordination of emergency response during emergencies or hazards. In coordination with Travis County, the City's Office of Homeland Security and Emergency Management (HSEM) is responsible for managing and coordinating EOC operations. At the time of the storm, the EOC was already taxed as it had been activated for nearly a year due to the ongoing COVID-19 pandemic.

The City and Travis County activated the Austin/Travis County Emergency Operations Center (EOC) on February 12. The EOC serves as the hub for communication and coordination of emergency response during emergencies or hazards.

HSEM has many responsibilities related to disasters and emergencies in the City, including planning and preparing for emergencies, educating the public about preparedness, and coordinating emergency response and recovery. HSEM maintains several types of emergency operations plans that guide the City's response to emergencies. These include:

- The City's Emergency Operations Plan which provides a general framework on how Austin responds to emergencies.
- Annexes which provide more specific emergency response guidance on specific activities such as warning, communications, transportation, etc.
- Special operations plans which are hazard specific and designed to capture what was learned from previous events to use in the future. For example, the City has a winter weather special operations plan.

These plans are aligned with state standards and federal guidance and are based on an all-hazards approach to emergency management. An all-hazards approach assumes the impact of emergencies is usually the same, even though the causes are often different.

The City has several other plans related to disaster preparedness and response including but not limited to:

- Continuity of operations (COOP) plans which are designed to help departments prevent or minimize interruptions of critical business functions and return to normal operations quickly after a disaster.
- A Hazard Mitigation Plan which identifies potential hazards that could affect the City, such as flooding or wildfires, and includes mitigation strategies for reducing the impact of the identified hazards.
- A Climate Resilience Action Plan for City Assets and Operations which includes an assessment of potential extreme weather impacts to City-owned assets and operations and strategies to mitigate those impacts.
- A Street and Bridge Operations Ice and Snow Plan which identifies streets and bridges within Austin that may need to be sanded as a result of ice or snow conditions.

In addition to HSEM, there are several other City departments involved in disaster response, including the public safety agencies and utilities. This audit reviewed the City's preparedness and response efforts for Winter Storm Uri through a Citywide lens. Therefore, this audit largely focused on the City as an entity and HSEM as the office responsible for coordinating emergency preparedness and response efforts.

What We Found

Summary

The City was unprepared to respond to Winter Storm Uri largely because the City did not adequately anticipate or plan for a widespread or severe winter storm. While the storm was exceptionally severe, the City's lack of preparedness for Winter Storm Uri led to a less effective and disorganized response. Additionally, the City has not implemented many past recommendations that may have improved its response to the storm and has not historically prioritized disaster preparedness or community resilience. The City's disaster planning and preparedness efforts also do not ensure the City has adequate resources, including staffing and supplies, to respond effectively to complex disasters like Winter Storm Uri. While City staff who responded worked diligently to respond to the disaster, these issues placed tremendous strain on the staff who were available to address the many challenges the City faced as the storm intensified and infrastructure failed.

Beyond those challenges, the City did not communicate effectively with Austin residents in the days leading up to or during Winter Storm Uri, so residents were left without critical information that may have helped them stay safe. Additionally, the City's disaster planning and preparedness efforts are not equity focused. As a result, the City's response to Winter Storm Uri did not effectively serve all residents, including people experiencing homelessness, seniors, and other vulnerable populations.

Finding 1

The City was unprepared to respond to Winter Storm Uri because the City's planning efforts did not adequately consider the risks posed by a severe winter storm or a widespread disaster. Additionally, the City has not implemented many past recommendations that may have improved its response to the storm and has not historically prioritized disaster preparedness or community resilience.

The City was unprepared to respond to Winter Storm Uri because the City did not adequately anticipate or plan for the risks posed by a severe winter storm or a widespread disaster. Additionally, the City has not acted on many prior lessons learned and has not prioritized or funded disaster preparedness and community resilience. As a result, the City's response to Winter Storm Uri was compromised. There were several issues with the City's response to Winter Storm Uri, including:

- **Inadequate staffing.** Staff worked long hours and were mentally and physically exhausted. The COVID-19 pandemic intensified this problem because staff were already exhausted from responding to the pandemic. Staff also reported that power outages, family needs, and connectivity issues affected their ability to respond to the storm.
- **A lack of necessary supplies to respond effectively to Winter Storm Uri.** Staff reported a lack of supplies including generators, tire chains, food, water, and snowplows. Staff also reported the City did not have equipment like water trucks or totes to distribute water quickly and effectively to residents during water outages. The City had to procure these items during the storm, which was difficult due to the widespread nature of the emergency and high demand for these supplies.
- **Inadequately prepared facilities to serve as warming centers, shelters, or resilience hubs.**[4] Staff reported having to shuttle individuals between shelters on dangerous roads during the storm, because shelters

[4] Resilience hubs are community facilities that provide the public with resources and support during a crisis or disaster.

lost power after they were set up. Staff described this process as disorganized and chaotic. Additionally, the City did not have pre-staged supplies at shelters. Staff reported the City had cots and blankets, which were stored for hurricane evacuees, but these items were not accessible because they were stored in a centralized location that was difficult to access due to road conditions.

While Winter Storm Uri was unusually severe, the City could make improvements to its disaster preparedness and planning efforts to improve responses to disasters in the future.

The City's planning efforts did not consider the risks of a severe winter storm or a widespread disaster like Winter Storm Uri.

In August 2019, the City Council declared a climate emergency and acknowledged that the impacts and risks of a climate crisis include more frequent and more intense extreme weather events. However, the City has not adequately planned for how to address this challenge. Staff reported limitations with improving planning, including a lack of staffing, funding, and the ongoing COVID-19 emergency.

The City's Emergency Operations Plan acknowledges the potential of a major or catastrophic event but does not include specific details about managing them. Additionally, based on a sample of annexes to City plans, none of the annexes specifically addressed major disasters.[5] Staff reported the significance of an event does not affect how the event is managed because the City takes an all-hazards approach to disaster management. However, the Federal Emergency Management Agency (FEMA) suggests that in addition to taking an all-hazards approach to emergency management, jurisdictions must also plan for the complexity and reach of catastrophes and significant disasters.

An all-hazards approach assumes the impact of emergencies is often the same, even though the causes are often different.

In addition to a general lack of planning for a major disaster, the City's plans do not consider the risks of a severe winter storm, such as one with system wide power and water outages.

- The City's Hazard Mitigation Plan anticipated a winter storm as a potential hazard that could affect the City. However, the plan underestimated the possible severity of a winter storm. The plan identified the possible severity as "limited," meaning a short-duration event with no loss of life and limited disruption to critical facilities and City services such as electricity and water.
- The City of Austin & Travis County Special Operations Plan: Winter Weather Emergency Plan, which outlines overall strategies for managing operations during winter weather events, anticipated a short-duration event with limited effects to roads and isolated power outages. It did not anticipate prolonged power or water outages.
- The City's Street and Bridge Operations Ice and Snow Plan is focused on treating roads and does not contain plans for snow removal.

[5] Annexes reviewed include Annex A: Warning Systems, Annex B: Communications, Annex C: Shelter and Mass Care, Annex I: Public Information, Annex L: Public Works and Utilities, Annex M: Resource Management, Annex O: Human Services, Annex S: Transportation, and Annex T: Donations Management.

The City had also not planned for a widespread disaster, such as a citywide, regional, or statewide disaster. The City's plans are mostly based on a disaster either affecting one part of Austin or occurring away from Austin. For example, when a disaster happens, the City typically relies on other parts of Austin, the County, or the State for assistance and resources, rather than keeping resources and supplies on hand. During Winter Storm Uri, resources from elsewhere were difficult to access since the storm affected the whole state. The City's sheltering plans were developed to prepare the City for assisting with sheltering hurricane evacuees. This means the plans consider a disaster occurring outside of Austin and do not plan for a disaster occurring within Austin. For example, they do not address backup power or water for shelter locations and assume supplies like food and water can be obtained locally.

Exhibit 3: City plans recognized a winter storm as a potential disaster but underestimated the storm duration, system-wide loss of power and water, and regional impact

Source: Office of the City Auditor Analysis of City plans related to disasters, July 2021

The City needs to be prepared for unexpected events with potentially high impact, such as Winter Storm Uri. While the City had not experienced a disaster like Winter Storm Uri before, the storm showed that not being prepared can have devastating impacts, ranging from a loss of community trust to a loss of life.

The City has not acted on many lessons learned or recommended actions to improve disaster preparedness and response. The City also has not prioritized or funded disaster preparedness and community resilience.

There are number of lessons learned and recommended actions the City was aware of prior to Winter Storm Uri that, if addressed, may have improved the City's response.

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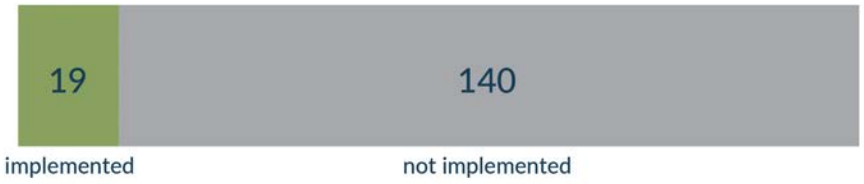
The City has not implemented many lessons learned from past disasters. After a disaster occurs, the City reviews its response to determine what went well and what needs improvement. The results are published in an after-action report. The after-action report includes a corrective action plan, which lists recommendations for improving responses to future disasters. The City has after-action reports and corrective action plans for recent disasters including: Hurricane Harvey in 2017, the Colorado River

Flooding Event in October 2018, and Hurricane Laura in 2020.[6]

According to a tracking log provided by HSEM, the City has implemented 12% (19 of 159) of the recommendations made in the corrective action plan for the Colorado River Flooding Event. All of the remaining recommendations are past their original due date and their updated due date. The City has not implemented 13 recommendations related to improving training in a variety of areas or 31 recommendations related to staffing. One unimplemented staffing recommendation is to develop a staffing plan for activations to be better prepared during a disaster.

Exhibit 4: Staff reported the City has implemented 12% of recommendations made in response to the Colorado River Flooding Event



Source: Office of the City Auditor analysis of recommendation tracking log provided by HSEM, September 2021

The status of recommendations made in the Hurricane Harvey and Hurricane Laura corrective action plans is unknown because the City does not have tracking information for these corrective action plans.

Some departments reported they have taken additional actions in response to the Colorado River Flooding Event. However, these actions have not been tracked at a Citywide level so that City leaders can readily determine what progress has been made. Staff reported they do not have the time and resources to track the implementation of past recommendations, and that they have not tracked the status of recommendations made in the Hurricane Harvey and Hurricane Laura corrective action plans. Additionally, staff reported challenges given the large number of recommendations made in these reports. Between these three reports, there were over 400 recommendations. However, the City also has not done an assessment to prioritize recommendations to determine the most critical ones to focus on. Staff reported this would be helpful.

The City did not identify the support and funding needed to implement resilience hubs or other resiliency-related initiatives, despite Council direction to do so. Community resilience is generally defined as the sustained ability of communities to withstand, adapt to, and recover from adverse situations such as disasters. City Council established building community resilience as a priority in the City through several resilience-related initiatives. However, the City did not prioritize implementing or funding some of these key initiatives. These initiatives may have improved the City's preparedness for an event like Winter Storm Uri.

Resilience hubs were not implemented prior to Winter Storm Uri, even though Council directed the City Manager to establish them in August 2019. City Council directed City management to establish resilience hubs in existing community facilities in low-to-moderate income areas of the

[6] While Hurricane Harvey and Hurricane Laura did not impact Austin directly, the City of Austin and Travis County supported hurricane evacuees and sheltering needs.

City. It appears resilience hubs were not established prior to Winter Storm Uri because the City had not identified the funding needed to establish them. Additionally, several months after Council gave this direction, the City had to significantly adjust operations to respond to the COVID-19 pandemic, which diverted staff time and resources away from the City's normal operations. Following Winter Storm Uri, City Council approved $3 million in the City's 2021-2022 fiscal year budget for two resilience hub pilot projects, which are expected to be completed within two years.

Additionally, a formal community resilience plan was not implemented prior to Winter Storm Uri, even though Council directed City management to develop one in May 2020. According to Council's direction, this plan was intended to build on the City's climate resilience efforts, be centered on equity, and include strategies to holistically address the economic, environmental, social, and racial disparities in the community.

Improving community resilience is increasingly important given the ongoing climate crisis. The severity and unexpected nature of Winter Storm Uri challenged the entire community. For example, staff reported several examples of private sector infrastructure, such as hospitals, nursing homes, dialysis clinics, and manufacturing plants, not being adequately prepared for an event like Winter Storm Uri. Some facilities lacked backup power or water storage. As a result, the City had to redirect resources from other critical services to assist these companies and avoid catastrophic outcomes. The City needs to strategize for how to work with the private sector and the community to address these challenges moving forward.

The City did not address issues identified in a February 2020 training related to winter weather that noted several specific issues with planning, training, and staffing. The City and Travis County participated in a training at FEMA's Emergency Management Institute in late February 2020. Attendees from the City of Austin included the Mayor, City Manager, department leadership, and operational staff. The overall goal of the course was to discuss and help prepare the community for a high-consequence winter weather event before it occurred. An after-action report from the training, which details lessons learned, identified several specific issues related to planning, training, and staffing. According to staff, little action has been taken in response to these issues due to the COVID-19 pandemic beginning right after the training.

Exhibit 5: Several issues identified in a February 2020 training and relevant to Winter Storm Uri were not addressed

Issues Identified in February 2020 Training Hosted by FEMA		
Planning	1	The City's primary sheltering plan, the Capital Area Shelter Hub Plan (CASHP), needed to be modified to address sheltering for winter weather.
	2	The winter weather plan and similar plans needed to be revised for extended events.
	3	Continuity of operations (COOP) planning needed to be improved.
Staffing	1	Each department needed to have a full-time emergency manager and a separate COOP planner.
	2	Long-term staffing issues needed to be addressed.
	3	A plan was needed for non-operational departments to help operational departments.
	4	Roles needed to be better defined to avoid overlap and gaps.
Training	1	COOP training needed to be increased and improved.
	2	More periodic EOC training and exercises were needed.
	3	An exercise involving not having any electric power needed to be conducted.
	4	Departments needed to increase the number of staff trained in emergency management.

Source: Office of the City Auditor analysis of the Austin-Travis County Community-Specific Integrated Emergency Management Course After-Action Report, July 2021

The City did not implement a recommendation from a 2011 audit that recommended the City Manager require all departments create continuity of operations (COOP) plans. COOP planning is important because it enables departments to continue operating effectively in the case of a disaster. The City's Emergency Operations Plan states that all City departments should have COOP plans.

Staff reported there is no Citywide directive or policy requiring departments have COOP plans or to keep COOP plans up to date. As of August 2021, not all City departments have COOP plans. According to HSEM records, 44 of 54 departments have COOP plans on file with HSEM, including all three public safety agencies, Austin Water, and Austin Energy. However, some key departments, including the City Manager's Office and the Information Security Office do not have COOP plans on file. Additionally, not all of the City's COOP plans are up to date, including key departments in disaster response such as the Communications and Public Information Office. This office has critical responsibilities related to communicating with residents during a disaster, and their plan was last updated in 2013.

It appears this recommendation was not implemented because the City has not prioritized COOP planning. For example, the City has worked to implement a tracking system for COOP plans since at least 2019, but it has not yet been fully implemented. According to staff, funding has delayed the system's implementation. HSEM and the Communications and Technology Management department requested funding in fiscal year 2019 to improve COOP planning, but this request was not funded.

The City has not implemented relevant recommendations from key disaster related mitigation plans, including the City's Climate Resilience Action Plan for City Assets and Operations and the City's Hazard Mitigation Plan. These recommendations include recommendations related to backup power in City facilities and training.

Exhibit 6: The City did not implement recommendations from key disaster related mitigation plans

Plan Name	Plan Description	Relevant Unimplemented Recommendations
Climate Resilience Action Plan for City Assets and Operations (2018)	Includes an assessment of extreme weather impacts to City-owned assets and operations and includes recommended actions for mitigating those impacts.	Only 3 of 62 community-facing facilities have backup power in case of an outage. Provide community facilities with at least one alternative source of electricity supply in case of power interruption.
		Create an inventory of City resources available for use during emergencies.
		Establish basic disaster response and recovery training for elected officials and City leadership.
Hazard Mitigation Plan (2016, updated 2021)	Identifies potential hazards that could affect the City, such as flooding or wildfires, and includes mitigation strategies for reducing the impact of the identified hazards.	Retrofit existing City of Austin buildings to serve as shelters.
		Educate private businesses on hazards.
		Establish backup power supplies at public safety buildings.
		Implement an extreme event recovery plan.

Source: Office of the City Auditor analysis of recommendations in City plans, August 2021

According to City management these initiatives were not acted on sooner due to funding limitations. The City's lack of prioritizing disaster preparedness and community resilience and the City's failure to act on past lessons learned likely affected the City's ability to respond effectively to Winter Storm Uri.

Winter Storm Uri was unusually severe, and this contributed to challenges with the City's response.

The Austin airport weather station endured a record-long streak of continuous time spent below freezing, lasting nearly seven days. Staff reported Winter Storm Uri was unprecedented, went beyond what would have been thought of as realistic training scenarios, and was not something for which the City could have adequately prepared. Based on interviews with other major Texas cities, Houston, San Antonio, Dallas, and Fort Worth, other cities also struggled with the challenges and complexities of Winter Storm Uri. Overall, other Texas cities did not seem better prepared than Austin.

El Paso was not included in our peer city study. However, El Paso faced fewer challenges than other Texas cities during Winter Storm Uri because El Paso operates on a different electric grid than the majority of Texas. Therefore, El Paso did not struggle with extensive power outages.

Additionally, City staff, and particularly HSEM staff, have been facing extreme strain due to the COVID-19 emergency. The EOC was activated in March 2020 for the COVID-19 pandemic. Since then, staff have been fully focused on pandemic response and not on planning or preparedness for disasters. HSEM staff reported that due to having been activated during COVID-19, they have not had the bandwidth to work on preparedness related activities, such as assessing City facilities and emergency supplies and implementing improvements based on past lessons learned.

While the storm was unprecedented, the City's lack of preparedness for Winter Storm Uri led to a less effective and disorganized response. The City could have taken actions that may have helped the community better prepare and improved the City's response. By acting on disaster preparedness and community resilience now, the City may be able to improve its response in future disasters.

Finding 2

The City did not communicate effectively with Austin residents in the days leading up to or during Winter Storm Uri because the City was unprepared for such a severe winter storm. As a result, residents were left without critical information that may have helped them stay safe.

The City's Emergency Operations Plan says it is the City's responsibility to inform, warn, and advise residents during all stages of an emergency from onset to recovery. Additionally, the Emergency Operations Plan says it is critical for all public information to be accurate, complete, and consistent. While the City communicated information to the public throughout Winter Storm Uri, the City could have done more to indicate the unusual and severe nature of the storm, communicate preparedness information earlier, and provide more information in non-English languages.

The City's early messages did not communicate the urgency of the situation to residents or adequately prepare residents for possible risks, such as widespread or prolonged power or water outages and impassable roads.

The City communicates information related to a disaster using several methods, including social media, news media, and the City's public warning system called Warn Central Texas. Warn Central Texas is an emergency notification system that allows the City to contact residents who are registered for alerts by phone, email, and text during times of disaster. This system is used to communicate the most critical information to residents about a disaster. Social media and news media are the City's primary methods for communicating with the public about a disaster.

The City communicated some early information to residents through these methods.

- The City began communicating preparedness information with the public on February 9 on social media. Early social media communications between February 9 and February 11 included messages warning about icy conditions, potential damage to pipes, and potential power outages. Messages also advised residents to sign up for outage alerts and to keep their cell phones charged.
- The City initially communicated preparedness information through Warn Central Texas on February 11. The City sent the same message through this system on February 11 and February 12. The message indicated a winter weather warning had been issued but provided no guidance or indication of the storm's severity.
- The City's initial press release was posted on February 10. Early news releases on February 10 and February 11 included cold weather tips from Austin Water and delays in curbside services, such as trash and recycling collection.

However, these messages may not have reached as many people as they might normally, given the duration and widespread nature of power outages during Winter Storm Uri. Also, the City could have done more to indicate the unusual and severe nature of the storm, which may have encouraged residents to take the pending storm more seriously and better prepare. Additionally, the City communicated little preparedness information between February 12 and February 14, after the City and County activated the Austin-Travis County Emergency Operations Center in response to the weather forecast. Austin Energy tweeted tips on

preparing for a power outage, which included gathering nonperishable food and water on February 13. However, this information was not shared on the City's main Twitter account. Austin Energy's Twitter account has about 43,000 followers, while the City's main Twitter account has more than four times the number of followers.[7]

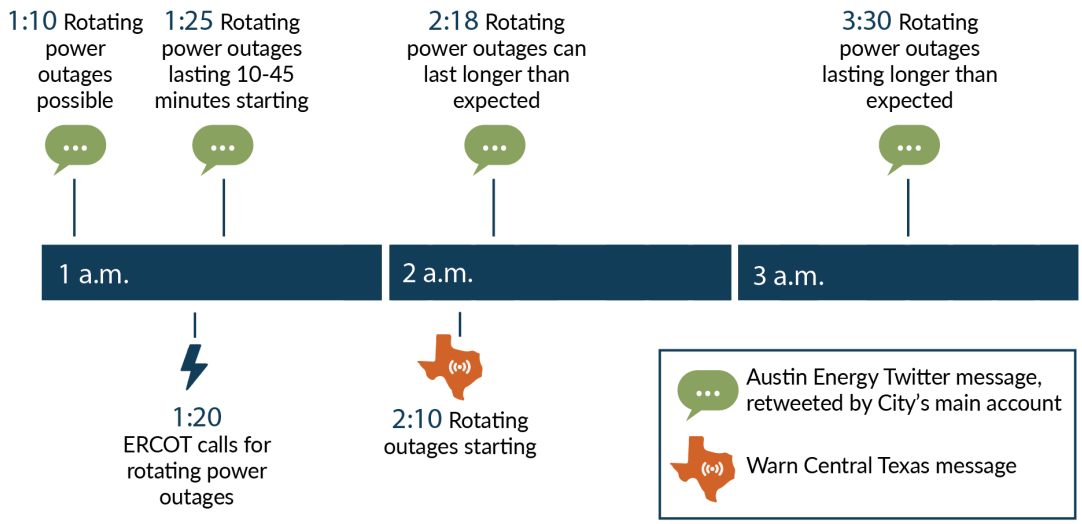
The City did not know how severe the storm would be in these early days. However, the City would have been able to better prepare residents if the City had considered the risks of a severe winter storm, or a disaster with widespread power or water outages. The City has provided preparedness education in the past, such as warnings for driving in wintry conditions, but the City has not provided education to prepare residents for the multiple days without power and water that occurred during Winter Storm Uri. For example, City staff indicated that previous recommendations for the amount of supplies residents should stockpile in advance (three days) was not enough for Winter Storm Uri. Since Winter Storm Uri, the City increased its recommendation for the amount of supplies to have on hand from three to seven days.

Following Winter Storm Uri, the City now advises residents to keep seven days of supplies on hand in case of an emergency.

During the storm, residents received information after it was too late to be useful.

Residents were made aware of rotating power outages 10 minutes before ERCOT instructed Austin Energy to begin them. A little over an hour later, residents were made aware that power outages might be longer than the expected 10-40 minutes.

Exhibit 7: Residents first received notice of rotating power outages in the middle of the night on February 15, too late for the information to be useful



Source: Office of the City Auditor analysis of the City's communication to residents during Winter Storm Uri, September 2021

This information was too late to be useful, as residents did not have time to prepare for the power outages. Residents received information too late to be useful partly because the City did not receive information from

[7] Based on number of followers in June 2021, which may be more followers than these accounts had in February 2021 during Winter Storm Uri.

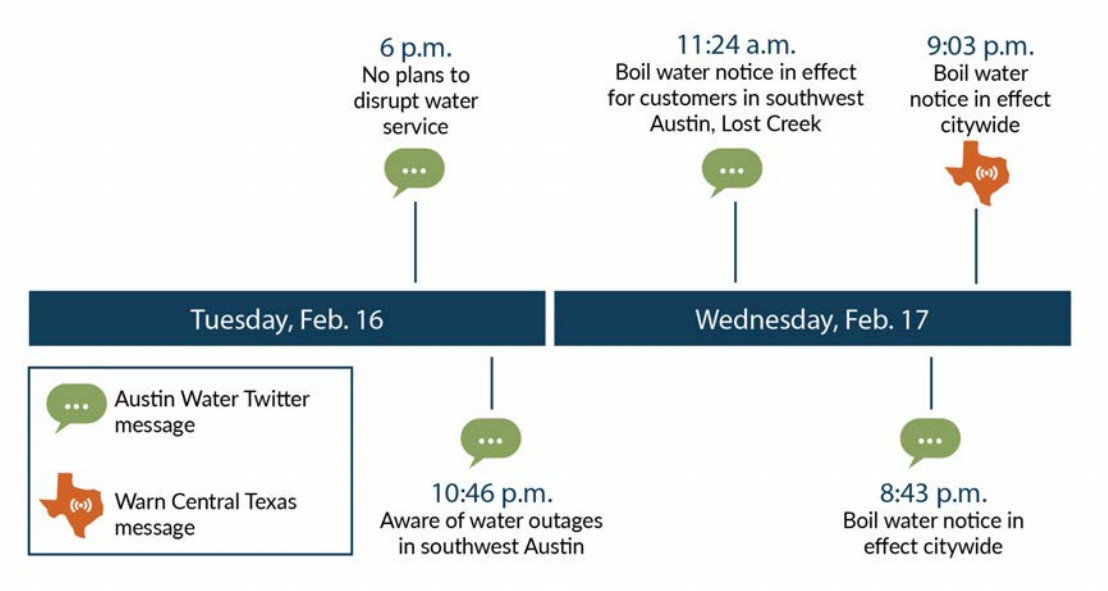
outside regulators with much advance notice and information changed quickly. For example, the time between ERCOT initiating a level 1 energy emergency alert and a level 3 alert, which allows ERCOT to call for rotating power outages, was only about an hour. Austin Energy staff reported they had little warning or insight into the timing or duration of ERCOT actions, and said they informed residents as soon as they could after receiving the information from ERCOT.

ERCOT has a series of emergency alert procedures it can issue when energy reserves drop below specific levels, including Energy Emergency Alert (EEA) Level 1, EEA Level 2, and EEA Level 3. An EEA Level 3 allows ERCOT to call for rotating power outages. These emergency alerts signal there is not enough electric generation to keep up with demand.

However, if the City had communicated better early on, residents may have been more prepared by the time widespread power outages began despite the City not having much advanced notice from ERCOT.

Residents also received information about water outages after it was too late to be useful. Austin Water tweeted on February 16 that there were no plans to disrupt water service and then implemented a Citywide boil water notice the next day. Austin Water staff reported this tweet was in response to questions from customers who were confused because nearby cities were already under a boil water notice.

Exhibit 8: Residents received information about water outages after it was too late to be useful



Source: Office of the City Auditor analysis of the City's communication to residents during Winter Storm Uri, September 2021

If the City had communicated better preparedness information early on, residents may have been more prepared by the time widespread power and water outages began. The City did not provide better preparedness information to residents early on because the City had not anticipated or planned for a severe winter storm, such as one with widespread power or water outages. The City has plans for communicating in a disaster, but the City had not thought through what communications were needed for such a significant or widespread event. For example, Austin Water staff said they had messaging and public preparedness tips for a typical one-to-two-day freeze, not a week-long freeze.

The City communicated minimal information in non-English languages, and information that was communicated in non-English languages was often even less timely than messages sent in English.

The U.S. Census Bureau estimates there are about 78,000 Spanish speakers in Austin who speak English less than "very well." Additionally, there are more than 10,000 residents in Austin who speak Chinese, Vietnamese, Arabic, or Korean and speak English less than "very well". According to staff, the City prioritizes translations in these languages. However, the City communicated minimal information in these languages before and during Winter Storm Uri. Information that was communicated was often less timely than messages sent in English. Without adequate and timely information available in other languages, many residents were left without critical information that may have helped them stay safe during the storm.

According to the City's Language Access Policy, all emergency messages sent through a public alert system, such as Warn Central Texas should be sent in Spanish and reasonable efforts should be made to send the messages in additional languages. However, the City did not send all messages sent through Warn Central Texas in Spanish and messages were not sent through Warn Central Texas in additional languages. This included early messages warning the public about the storm. The first message sent through Warn Central Texas in Spanish was on February 15, four days after an initial message was sent to English speakers on February 11.

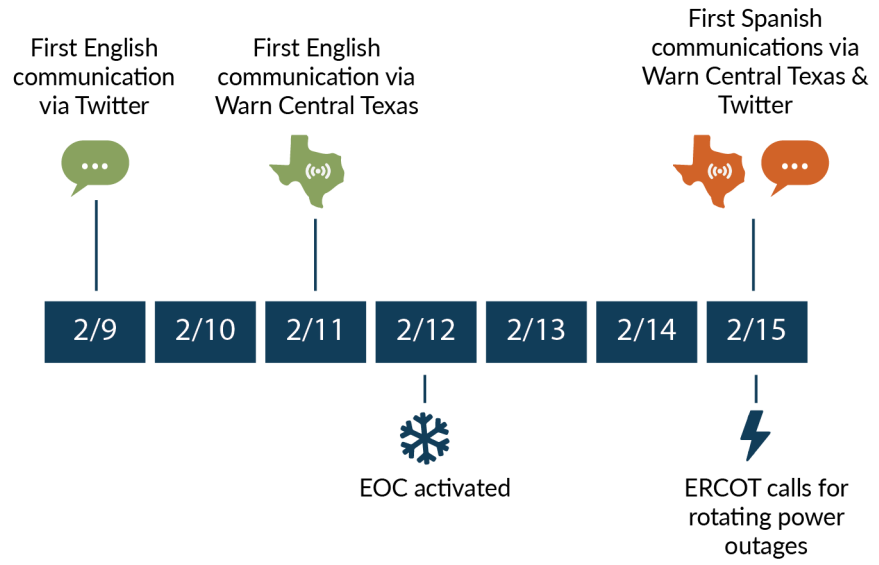
The City's Language Access Policy also states any other critical messages and documents provided to the public through social media or otherwise should be provided in both English and Spanish. Based on an analysis of the City's communication the City did not translate all critical messages into Spanish. Even fewer messages were translated into languages other than Spanish.

Based on an analysis of City news releases during the storm and tweets sent February 7 through February 15 from the City's main Twitter account, Austin Energy's account, and Austin Water's account, the City translated about 18% of critical messages into Spanish. No messages were translated into languages other than Spanish during this time.

Messages that were not translated into Spanish included critical information warning residents about the storm in the days leading up to it. The City did not use its main Twitter account to communicate with residents about the pending storm in Spanish until February 15, after the storm began. This Spanish tweet announced a local state of disaster had been issued on February 14. Additionally, at least four Spanish tweets posted by Austin Energy were missing graphics or links included in the original English tweets, and one Spanish tweet included a graphic with English labels.

Austin Water tweeted about the boil water notice in Spanish, Vietnamese, Chinese, and Arabic, but did not do so until February 18, a day after the notice took effect. This was due to delays in getting the translations completed. The City's main Twitter account also did not share information about shelters or warming centers in languages other than English until a tweet in Spanish the evening of February 15, more than half a day after widespread power outages began.

Exhibit 9: The City was late warning the public about the storm in Spanish through its main Twitter account and Warn Central Texas



Source: Office of the City Auditor analysis of the City's communication to residents during Winter Storm Uri, September 2021

The City's website with information on Winter Storm Uri was available in English and Spanish. Additionally, staff reported informational PDFs were available on the website in at least Korean, Simplified and Traditional Chinese, and Vietnamese.

Other cities did not appear to better communicate with residents during Winter Storm Uri. Based on a review of Houston, San Antonio, Dallas, and Fort Worth, no city was clearly better in their communication strategy than Austin. Additionally, most cities were worse than Austin about translating tweets to non-English languages.

The City did not communicate effectively with residents with limited English proficiency because the City has not adequately planned for communicating disaster related information in non-English languages. Staff reported it was difficult to get translations completed because many of the City's translators are local and were also impacted by the storm. However, City after-action reports have consistently identified language access as an issue during disasters. The after-action report for the Colorado River Flooding Event included a recommendation for the City to develop a Language Access Plan specific for emergencies to ensure the City was prepared for serving residents who speak languages other than English. However, this plan has not been developed. Also, based on a review of communications related plans, the only languages other than English referenced are Spanish and American Sign Language. As a result, the City was unprepared to serve residents with limited English proficiency.

Finding 3

The City's disaster planning and preparedness efforts do not ensure the City has adequate resources, including staffing and supplies, to respond to complex disasters such as Winter Storm Uri.

Even if the City's plans had anticipated a severe winter storm, the City likely would not have been able to respond effectively, because the City lacked adequate resources to respond to such a complex disaster. The City does not have a Citywide emergency supply stockpile or inventory to rely on during emergencies. Additionally, the City does not have an effective process for ensuring City staff are available and trained to respond in a disaster.

The City does not have a Citywide emergency supply stockpile or inventory to rely on during emergencies.

As noted in Finding 1, the City did not have the supplies and equipment needed to respond effectively to Winter Storm Uri, including generators, tire chains, food, water, and snowplows. While some departments may maintain some supplies for emergencies, the City does not generally maintain an emergency supply stockpile and could not rely on other nearby agencies for supplies due to the widespread nature of the storm. Also, the City does not have a centralized inventory system for tracking the supplies that are available during disasters.

Staff reported they have not maintained supplies on hand because it would be cost-prohibitive and there is a lack of storage space. However, staff have not conducted a cost-benefit analysis to determine if it would be beneficial to keep supplies on hand. The events of Winter Storm Uri suggest it would be beneficial to keep at least some supplies on hand for significant disasters.

The City does not have an effective process for ensuring City staff are available and trained to respond in a disaster.

The City's plans state that staff needed to assist in a disaster should be identified before a disaster and that processes should be in place to ensure staff needs are met during a disaster, so they are better able to respond to the needs of the community. Additionally, FEMA states that training staff who will assist in disaster response is a key part of disaster preparedness.

The City has not identified adequate personnel needed to assist in disasters. Some disaster response roles are pre-defined in plans. However, during Winter Storm Uri the City needed many more staff to meet community needs. These additional roles were reliant on staff volunteering from City departments who may not typically respond in an emergency. However, HSEM staff reported it was difficult to find volunteers from other City departments during Winter Storm Uri, which placed excessive strain on the staff who were able to respond.

HSEM reported difficulty pre-assigning staff from other departments to emergency operations before a disaster occurs because there is no Citywide directive requiring departments to participate. Staff reported prior instances of some departments not wanting to lend staff to emergency operations because of workload and budgetary concerns. However, given that the climate crisis is expected to result in more frequent and more intense disasters, it is critical that departments work together to ensure responses to all disasters are adequately staffed.

Based on interviews with other large Texas cities, Houston and Fort Worth have more established processes for assigning staff to disaster response. Houston reported starting a new program in 2020 called the

Houston Employee Response Team (HERT) to help with assembling staff in an emergency. While staff volunteer for the program, these volunteers are established and trained in advance to fulfill specific roles during an emergency, such as with shelter or support operations. Fort Worth reported they have a system to track and deploy staff to specific emergency response areas. Staff receive training in these areas each quarter.

The City does not have an effective process in place to ensure staff needs are met during a disaster so that they are able to respond. The Emergency Operations Plan states departments should address staff needs in their continuity of operations (COOP) plans. However, based on a sample of COOP plans, staffing needs such as food, lodging, and daycare, were only minimally addressed.[8] This affected the City's response to Winter Storm Uri, as staff reported that power outages, family needs, lack of lodging, and connectivity issues affected their ability to respond to the storm.

Additionally, City staff who typically respond to disasters may not have received adequate training. The City needs to know which staff are trained for emergency response and what training they have received in order to assign informed and prepared staff when a disaster occurs. Additionally, the City has adopted a national framework for responding to emergencies and disasters, called NIMS, which requires the City to ensure emergency response personnel receive certain training. The City offers some training in emergency management and operations, such as an Emergency Operations Center orientation training and a training for potential shelter managers. Additionally, HSEM has a training policy that applies to certain key departments who are typically involved in emergency management and response, including Austin Water, Austin Energy, and the public safety agencies.[9] This policy requires these departments to ensure staff complete training and to maintain staff training records. However, HSEM does not currently track or monitor training at a Citywide level to ensure City staff receive the required training. Without knowing which staff have completed training, the City cannot effectively ensure staff are adequately trained for emergency response roles when a disaster occurs. Additionally, the City may not be compliant with NIMS training requirements.

HSEM staff reported the City lacks staff and other resources, such as a database, for tracking and monitoring training. The City is working on an agreement with Travis County to use their learning management system, which may help to track training efforts moving forward. However, tracking and monitoring training will still require staff time.

HSEM staff reported challenges enforcing training requirements because there is no Citywide directive requiring training. This makes it difficult for HSEM to require other departments to comply with training requirements.

HSEM staff also reported challenges enforcing training requirements because there is no Citywide directive requiring training. This makes it difficult for HSEM to require other departments to comply with training requirements. HSEM drafted a revised Citywide policy in 2019 to address this concern, but the policy has not been implemented or sent for approval to the City Manager due to delays resulting from the COVID-19 pandemic.

[8] COOP plans reviewed include plans for Austin Energy, Austin Water, Austin Fire Department, Austin Police Department, Emergency Medical Services, and the Communications and Public Information Office.

[9] The training policy applies to HSEM, Austin Public Health, Emergency Medical Services, Aviation, Austin Water, Austin Police Department, Austin Fire Department, Austin Energy, Watershed Protection, and Public Works.

Finding 4

The City's disaster planning and preparedness efforts are not equity focused. As a result, the City's response to Winter Storm Uri did not effectively serve all residents, including people experiencing homelessness, seniors, and other vulnerable populations.

The City's plans are too general and do not contain the specificity needed to help City staff directly serve the populations who need help the most. Additionally, the City does not have a formalized process to engage with community stakeholders to assist with reaching vulnerable populations before or during a disaster. The City also does not know if it is reaching the most vulnerable members of the community because the City does not have a good way to measure its outreach efforts.

The City's plans are too general and do not contain the specificity needed to help City staff directly serve the populations who need help the most. The City's Human Services Annex, which is a sub-plan to the City's overall Emergency Operations Plan, provides a framework for how the City of Austin will meet the basic needs of residents during a disaster. This Annex discusses vulnerable populations, such as residents who because of age, disability, or language may need additional assistance during a disaster. However, the plan does not include specifics on preparedness efforts for serving vulnerable people, such as how vulnerable people will be reached. Other Annexes briefly acknowledge that equity concerns exist but do not include details about how to address those concerns. The City's plans also do not address outreach to vulnerable populations, either before a disaster with preparedness information or during a disaster. Additionally, the Equity Office does not appear to be formally involved in disaster planning and preparation. While the City's Emergency Operations Plan includes a responsibility matrix listing responsibilities for departments, the Equity Office is not included in the matrix.

While the City's plans need to be more specific and specific procedures need to be developed to meet the needs of vulnerable populations in the community, there are some existing equity focused activities occurring throughout the City that can be built into these efforts. For example, the City of Austin has a registry for medically vulnerable people that allows individuals to register for support services related to utilities. Austin Energy staff asserted they contacted these residents during Winter Storm Uri to confirm they were safe.

Additionally, the City has not formalized a process to engage with community stakeholders to assist with reaching vulnerable populations before or during a disaster. Recommended practices suggest that cities engage with community organizations to assist in educating and reaching vulnerable populations before and during a disaster. Cities can leverage these relationships to ensure people who need assistance the most have access to information and resources. While the City has done some community engagement, the City has not developed a formalized plan or strategy to engage with community organizations, such as a plan that identifies community organizations representing vulnerable populations and strategies for accessing their assistance when disasters strike.

The City's plans state that community organizations should be identified and agreements with these groups should be developed before a disaster. However, the City did not act on this element of the plan. During Winter Storm Uri, the City relied on informal contacts who staff and Council members knew as a means of reaching vulnerable populations, rather

than having an established list or database of community organizations. As a result, it does not appear the City is partnering with organizations in a strategic way that maximizes the assistance these organizations can provide. For example, the City was slow to start working with community groups during Winter Storm Uri and therefore community groups mobilized on their own, which further challenged the City's coordination efforts. Additionally, the lack of formal agreements and strategic partnerships with legitimate community organizations, increases the risk that resources could be diverted, poorly used, or not maximized during disasters.

The City Council created the Winter Storm Review Task Force for the purpose of holding open public listening sessions. During these sessions, individuals and organizational representatives shared information, experiences, and recommendations related to the winter storm and resulting crises. The Task Force's final report was published in July 2021.

The lack of intentional partnering with community organizations and reaching vulnerable populations affected the City's ability to effectively reach and serve all residents, including people experiencing homelessness, seniors, renters, people with medical needs, and other vulnerable populations. Residents who spoke at public listening sessions held by the City's Winter Storm Review Task Force noted challenges for people with limited English proficiency, seniors, renters, individuals who were visually impaired, and individuals with other disabilities. In addition to challenges serving these populations, staff also reported challenges serving people experiencing homelessness and medically vulnerable people.

The City could also do more to engage community organizations in disaster planning and preparedness, such as educating the public more generally about disaster preparedness. Stakeholders reported minimal involvement in the City's disaster preparedness and planning efforts. Staff reported they try to include everyone, but they do not have a list of stakeholders they involve in planning and preparedness. Given the attention on disaster preparedness in the community following Winter Storm Uri, the City has an opportunity to build stronger relationships with the community. By engaging community organizations, the City may be able to alleviate some of the strain on City resources, so that the City can focus on serving individuals who need assistance and resources the most.

Given the attention on disaster preparedness in the community following Winter Storm Uri, the City has an opportunity to build stronger relationships with the community.

While more work is needed to involve the community in disaster preparedness and response, the City has conducted some community-focused outreach. For example, the City began piloting a community ambassador program in 2019 to provide preparedness education in communities in southeast Austin in partnership with Go Austin, Vamos Austin (GAVA). However, the pilot was delayed due to the pandemic. The City also tries to engage the community on the City's disaster planning through community meetings such as a January 2020 meeting on the City's Emergency Operations Plan at City Hall. However, staff said it has been challenging to gain community involvement in disaster planning due to insufficient staffing, time, and funding.

The City also does not know if it is reaching the most vulnerable members of the community because the City does not have a good way to measure its outreach efforts. The U.S. Department of Justice recommends cities have an evaluation process to help determine whether disaster preparedness programs are reaching and meeting the needs of diverse populations in the community. However, the City is not currently evaluating who they are reaching with disaster-related information. The City has some measures related to community preparedness for disasters included in its

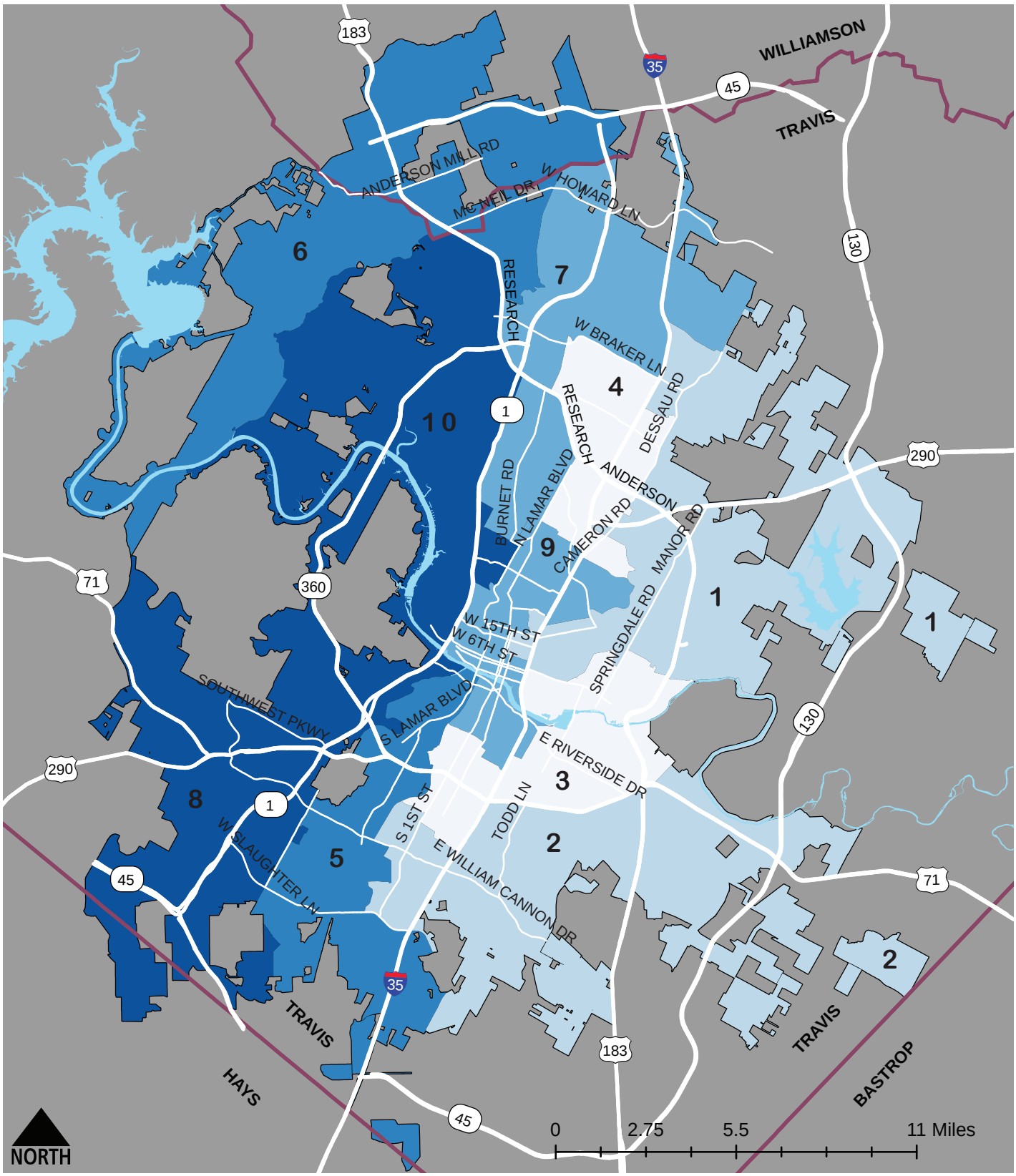
strategic plan, Strategic Direction 2023, but these measures are community wide. These measures are too broad to guide specific efforts needed to reach residents requiring the most assistance or residents who are not currently being reached.

The City also does not have good data to determine who it is or is not reaching through warning systems like Warn Central Texas. This is particularly important because staff reported there are limitations with the reach of the City's warning systems. As shown in the exhibit on the next page, an analysis of Warn Central Texas web registrations shows a greater number of people have registered for the system in the western part of Austin. The City is able to reach residents through Warn Central Texas who have not registered, such as through landlines, but this analysis suggests the City may not be reaching all parts of Austin equally.[10]

The City utilizes multiple methods to communicate in a disaster. However, without a better understanding of who is being reached through these methods, the City may not be focusing its efforts appropriately. As a result, critical information communicated by the City may not be reaching diverse populations. Staff said the main limit to tracking and analyzing data on outreach is a lack of staffing, which has been particularly difficult during the COVID-19 pandemic.

[10] Analysis is based on Warn Central Texas web registrations as of June 2021, so may include registrations after Winter Storm Uri.

Exhibit 10: Warn Central Texas web registrations are greater in the western part of Austin



Registrations per district

1461 - 1764	2285 - 3609	4243 - 4951
1765 - 2284	3610 - 4242	

Source: Office of the City Auditor analysis of Warn Central Texas web registrations as of June 2021

Additional Observation

It appears the City's planning and preparedness efforts related to sheltering were not adequate to address sheltering needs during Winter Storm Uri. Further analysis of the City's efforts in this area will be conducted as a separate audit.

According to the City's emergency operations plans, the City is responsible for coordinating shelter and mass care in emergency situations. Shelters must be structurally sound and capable of safely serving their purpose. Shelters must also be able to effectively serve vulnerable populations such as individuals with disabilities or medical needs. It does not appear the City's shelters met these requirements during Winter Storm Uri. Staff reported several challenges, including shelters not having adequate supplies or backup power and difficulty serving vulnerable populations, such as individuals experiencing homelessness and people with medical and mental health needs.

These challenges likely occurred because the City's sheltering plans were built to respond to housing hurricane evacuees and did not adequately address the conditions present during Winter Storm Uri. For example, the City's sheltering related plans do not anticipate disruptions to water or power or difficulty obtaining supplies due to a widespread disaster. Further analysis of the City's efforts related to sheltering will be conducted in a separate audit.

Recommendations and Management Response

1 **In order to ensure the City is prepared for significant or catastrophic events, including severe winter storms, the Director of HSEM should work with staff to plan, train, and conduct exercises for these events. These efforts should be done in collaboration with key internal and external stakeholders, such as Austin Energy, Austin Water, Public Works, the Communications and Public Information Office, and Travis County and include:**

- **Events that are regional or statewide in nature**
- **Events that have continuous or widespread power or water outages**
- **Communication during significant or catastrophic events, including severe winter storms**

Management Response: Agree that trainings are critical. Disagree with the insinuation that these are not already being conducted.

HSEM conducts trainings with partner departments and outside agencies frequently. These trainings contemplate a wide range of disaster scenarios. However, no training system is designed to meet all possible risks and it is not appropriate to communicate that we can create systems, and emergency response mechanisms, to reduce risk to near zero. The combination of week-long below freezing temperatures, two ice storms that paralyzed the transportation system and effectively isolated communities from one another for days, the near collapse of the state power grid, boil water notices for most Texans, all during the height of a 100-year pandemic and before vaccines were widely available is an event of such enormous complexity that no training system would have reasonably anticipated.

HSEM will continue to carry out scenario-based trainings modeling a range of potential threats to our community. For the HSEM Director to properly staff, plan, train, and conduct exercises at the scale noted above, HSEM will need significantly more resources. This includes additional skilled personnel to provide the necessary organizational structure and to build the department's capacity to continually analyze all emerging threats and develop training and response plans accordingly.

HSEM is currently staffed at 15 full-time positions. This staffing level has not significantly changed in more than 20 years. Meanwhile, the population of the City has doubled. The current staffing level is not adequate to respond to a simultaneous crisis and/or plan, conduct exercises, train, or provide for continuous improvement efforts to internal and external key stakeholders.

Proposed Implementation Plan: HSEM will continue to lead the effort among City departments and the community to work towards an all-hands approach to preparing for and responding to disasters. HSEM will also continue to work with a contractor to improve our business continuity program to help efficiently navigate the path forward. Actions will include:

- Review and update disaster planning assumptions that will drive resource needs
- Upgrade technology by using an industry standard system to onboard City departments and to establish readily available COOP plans
- Develop an implementation plan for all departments based on priorities that are identified as essential services
- Work with departments to develop a business impact analysis to identify mission essential functions and mission critical functions
- Continue to hold scenario-based training sessions to include functional and tabletop exercises

Proposed Implementation Date: December 2022. HSEM will work with the City Manager's Office to begin addressing staffing, technology, and other resource needs in the fiscal year 2023 proposed budget.

2 The City Manager should prioritize COOP planning.

- Departments should be directed to keep COOP plans up to date and to conduct regular training and exercising on COOP plans.
- Department efforts should be monitored and tracked at the Citywide level to ensure COOP planning is up to date and that department COOP plans align to Citywide disaster planning.

Management Response: Agree

Proposed Implementation Plan: The City will continue to build upon already-existing COOP plan development. Many departments have COOP plans, but Winter Storm Uri highlighted that most plans do not contemplate a disaster of such scale, scope, and duration. Going forward HSEM will require that the plans are more robust and contemplate more complex events.

The City has maintained departmental COOP plans for many years, and shortly before the pandemic, a full-time position was reallocated to HSEM to focus on further building out the City's COOP planning program. This was intended to be this individual's primary responsibility. Ironically, very soon after making the transition to HSEM, this individual's role – like many others across the City – had to be immediately repurposed to help staff the Emergency Operations Center and support the City's pandemic response. Roles and responsibilities within HSEM continue to be determined based on pandemic conditions, which remains the City's primary emergency response. As pandemic conditions improve, however, and the City begins to demobilize portions of its response, the City will be able to return to more normal operations and redirect this position's focus to the COOP planning effort.

Proposed Implementation Date: March 31, 2022

3

The City Manager should prioritize and implement initiatives to increase disaster preparedness and community resilience, including:

- Establishing resilience hubs
- Ensuring resilience hubs are supplied appropriately for disasters
- Improving disaster preparedness education
- Developing and implementing strategies to increase the likelihood that the private sector and the community are prepared for disasters in the future, such as through incentive programs

If funding is not available, the City Manager should seek funding, such as through grants.

Management Response: Agree

Proposed Implementation Plan: Prior to Winter Storm Uri the City had begun the important work to establish resilience and neighborhood hubs pursuant to the August 2019 City Council Resolution supporting the creation of resilience hubs. That effort was disrupted by the emergence of the global pandemic, which abruptly shifted the City's focus, resources, and response capabilities. As part of the City Manager's fiscal year 2022 proposed budget, later adopted by City Council, an allocated amount of the American Rescue Plan Act of 2021 (ARPA) funding is being dedicated to directly support the continued research, set up, and operation of resilience hubs. Currently, the City is exploring opportunities with other governmental and community partners to establish six pilot sites for hubs.

Regarding disaster preparedness, the City does conduct education campaigns around disaster preparedness. However, given the frequency of disasters and the expectation that this trend will continue, the City is taking additional steps to broaden that outreach effort. Messaging to the community about how to prepare for longer periods without critical supplies has already begun.

Lastly, the City is committed to working with private business and non-governmental partners to expand community-wide preparedness capabilities to provide services that are not as easily or effectively provided by government. The City is examining its existing role to determine opportunities to partner with other non-governmental entities as appropriate.

Proposed Implementation Date: September 30, 2022

4

In order to increase the City's preparedness for future disasters, the Director of HSEM should work with staff and other departments to implement past corrective actions, mitigation actions, and recommendations related to disaster preparedness and response. This includes actions from:

- **Past after-action reports such as the Colorado River Flooding Event**
- **City plans such as the Hazard Mitigation Action Plan and the Climate Resilience Action Plan for City Assets and Operations**

Corrective actions and recommendations should be prioritized for implementation based on those that will have the greatest impact on the City's ability to respond effectively in future disasters. Implementation efforts should be tracked.

Management Response: Partially Agree. The responsibility for implementing corrective actions lies with the respective department directors, not just the HSEM Director. All City of Austin departments, Travis County, and other community organizations play an essential role in completing their own corrective actions, mitigation efforts, and recommendations. HSEM largely serves as a convener of these partners, but it does not oversee their respective corrective activity. An expectation that HSEM develop this role would need to be met with significantly more resourcing and an expanded scope of roles and responsibilities.

Helping to coordinate these various corrective efforts, however, is important and HSEM will establish a Citywide improvement group, working group, or a taskforce with other City departments supporting HSEM. This group, led by HSEM, will explore opportunities for collaboration and best solutions to benefit the City. The support of the other departments is crucial for the success of this effort. An improved organizational structure will be developed to support this effort.

Proposed Implementation Plan:

The HSEM Director will:

- Develop an organizational structure based on the strategic plan and the efforts/goals associated with the plan for the department
- Establish a Citywide improvement group, working group, or taskforce

HSEM will utilize this group to identify priorities and develop action plans to address past corrective actions, mitigation actions, and recommendations related to disaster preparedness and response.

Proposed Implementation Date: December 2022, barring no additional catastrophic events. HSEM will work with City Manager's Office to address additional resource needs in the fiscal year 2023 proposed budget.

5 In order to ensure HSEM staffing is adequate to both prepare for and respond to disasters, the City Manager should evaluate current HSEM staffing and add additional staff needed to ensure HSEM is able to achieve its goals. This evaluation should consider the possibility of increased staff burnout and turnover, as well as prioritize retention, given the significant strains placed on this department following the prolonged emergency activation for COVID-19.

Management Response: Agree

Proposed Implementation Plan: The City Manager is working with HSEM, the Budget Office, and multiple other departments as appropriate to determine personnel and staffing needs and will make reasonable staffing recommendations as part of the regular annual budget planning process.

Proposed Implementation Date: June 1, 2022

6 In order to ensure that future disasters are adequately staffed, the City Manager should update the policy or process for ensuring adequate staff from across the City are available and trained to respond to disasters, including significant, prolonged, and overlapping disasters. This policy or process should include a process for:

- Activating and assigning staff from across the City when a disaster occurs
- Training staff to be prepared to respond to disasters
- Tracking staff who have completed training
- Ensuring staff needs such as food and lodging are met so that staff are able to respond during a disaster

Management Response: Agree

Proposed Implementation Plan: The City has had policies and procedures in place for many years to achieve this intended outcome and will use this opportunity to review those policies for areas of possible improvement based on lessons learned from this event. That review is part of the City's after-action review. As part of that ongoing review, the City will examine the Social Services Branch operational policy to address basic needs that may result in any disaster. Additionally, the City will explore expanding other response staffing strategies such as implementing a disaster reservist initiative, which, through the curation of disaster contracts, would utilize committed temporary staffing to augment the City's response efforts.

By itself, Winter Storm Uri was an unprecedented weather event. It was rendered infinitely more complex due to the overlap of the ongoing global pandemic, which dramatically altered how the City could staff and respond to the storm. Every action to assist people with basic shelter and medical needs was colored by the fact that the City had just created a vaccination program for COVID-19, and only a tiny percentage of individuals were vaccinated before February 2021. Every decision was colored by the ongoing medical emergency.

Finally, unlike most disasters, when city employees are helping other people affected by the disaster, for Winter Storm Uri every city employee playing a role in disaster response was also affected by the storm personally. This was a traumatic event for individuals who were already exhausted by a year of working disasters.

Proposed Implementation Date: June 1, 2022

7 The Director of HSEM should ensure the City has adequate emergency supplies and equipment available for future disasters. This should include:

- A cost-benefit analysis to determine what supplies should be kept on hand and what supplies should be procured during a disaster
- A plan for procuring supplies in a widespread disaster when nearby vendors may not be available
- An emergency supply inventory to track supplies available for use during disasters
- Consideration for alternative or more cost-efficient equipment options

Management Response: Agree. To achieve these goals, conversations need to commence with policy makers, response agencies, community organizations, and private sector centered organizations to formulate and implement strategies aimed at: improving resiliency of community organizations and critical facilities, incentivizing mitigation efforts, expanding community disaster response capabilities and fostering a disaster preparedness environment within the community. An evaluation of emergency supplies and equipment has begun through our implementation of an inventory management system during the pandemic to understand and determine emergency supply needs.

However, this effort needs to be expanded in order to achieve maximum potential. Storage capacity needs to be assessed, as well as our ability to distribute supplies. An evaluation of HSEM staffing levels needs to occur so more permanent resourcing can be secured. Furthermore, assistance from other departments will be necessary for support and consideration of alternative or more cost-effective equipment options. Until we are confident that the pandemic conditions have stabilized and the threat of any new variant is minimal, it will be extremely difficult for HSEM to shift priorities away from the pandemic response beyond what it already has.

Proposed Implementation Plan:

- Continue and expand the use of the inventory tracking system
- Utilize the improvement group, working group, or taskforce group to solicit participation from departments to:
  - Identify departments that provide mission essential functions to the city
  - Identify basic supplies that need to be on hand
  - Identify disaster recovery specific supplies
  - Identify storage and distribution capability to hold supplies

Proposed Implementation Date: December 31, 2023

8 The Director of HSEM should work with the Director of CPIO to create and implement a Language Access Plan for emergencies to ensure that affected communities receive adequate information about all stages of emergency management, including planning, response, recovery, and mitigation activities. This plan should prepare the City to provide adequate language access during significant or catastrophic events and should include strategies for ensuring translations are timely communicated, such as pre-translated templates.

Management Response: Agree. HSEM and CPIO will alter the strategy for providing translated content during an emergency. The City of Austin currently has translation and interpretation contracts in place as well as a substantial library of pre-scripted content for emergencies translated into multiple languages. During the winter storm event, staff and our local translation vendors, alike, were unable to access these resources due to lack of power and reliable internet connection. Ensuring language access staff have reliable power and internet connection and can work with contracted vendors not impacted by the storm as well as agencies pre-identified to help in the dissemination of that translated material is critical. HSEM has also partnered with Travis County and DeafLink to implement the Accessible Hazard Alerting System (AHAS) to provide accessible emergency alerts to the deaf, blind, and hard of hearing community. The program became operational on October 4, 2021.

Proposed Implementation Plan: HSEM will work with CPIO and other relevant departments to:

- Establish a plan for language access staff to always have reliable power and internet connection during emergencies
- Ensure access to contracted vendors that are outside the State of Texas in statewide disaster situations so that we can provide timely translation and interpretation services
- Develop a strategy to identify community groups, leaders, and other agencies committed to helping us disseminate information to the communities they serve

Proposed Implementation Date: September 30, 2022

9

In order to ensure that the City's disaster response efforts are equitable and meet the needs of vulnerable populations in the community, the Director of HSEM should:

- Explicitly address equity in the City's emergency preparedness and response plans
- Develop specific procedures for ensuring responses are equitable, with emphasis on communicating with and assisting people experiencing homelessness, seniors, renters, people with medical needs, people with limited English proficiency, and other vulnerable populations
- Formally involve the Equity Office in disaster planning and response
- Evaluate whether disaster preparedness and response efforts are reaching and meeting the needs of vulnerable people, diverse racial and ethnic populations, and populations with limited English proficiency, and use the results to inform planning going forward
- Develop, implement, and monitor the effectiveness of a comprehensive plan for outreach to vulnerable populations at all phases of a disaster, such as a plan that identifies the communities in the City who are most likely to be impacted by disasters and who are most likely to be difficult to reach during a disaster, and includes strategies, funding, and a schedule for implementation for reaching the communities identified

Management Response: Agree. HSEM and the Equity Officer initiated this effort in early 2020, but then the pandemic began causing the formulation of the plan to be paused. However, the Equity Office was incorporated into the Austin-Travis County Emergency Operations Center response to COVID-19 in March 2020 and have played an invaluable role in aiding our response. Additionally, the position of Equity Officer was adopted in the Austin-Travis County Emergency Operations Center Standard Operation Guidelines updated in August 2021.

Proposed Implementation Plan:

HSEM will re-engage this effort with the Equity Office by doing the following:

- Develop a comprehensive plan for outreach to vulnerable populations at all phases of a disaster
- Establish a timeline to accomplish the tasks to ensure that the City's disaster response efforts are equitable and meet the needs of vulnerable populations in the community

While a disaster response can provide some temporary relief to preexisting community conditions, it is an unrealistic expectation that it will conclusively and permanently resolve long standing equity and economic disparity within the response period.

Proposed Implementation Date: December 31, 2022

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To improve the ability of the City and community members to work together to prepare for disasters, the Director of HSEM should develop a formal plan for involving the community in disaster preparedness and planning. This plan should include:

- **Clarification of the City's responsibilities and the responsibilities of outside entities when responding to disasters, which may require discussions with policy makers**
- **Identification of and collaboration with community partners such as non-profits, businesses, faith-based organizations, the general public, and community organizations serving diverse racial/ethnic groups, seniors, people experiencing homelessness, other vulnerable groups, and people with limited English proficiency**
- **An approach for ensuring contact information for these community partners is up to date and available during a disaster**

Management Response: Agree. HSEM will continue to work with Travis County Office of Emergency Management to create an evaluation of a response plan to emergency management. The focus of the plan will be on an environment of collaboration and creating a stronger presence in the community. This effort will continue to improve the ability of the City and community members to work together to prepare for disasters. This effort also needs to be adequately staffed with skilled personnel.

Ensuring and making available up-to-date contact information for community partners will be significantly challenging and assumes that HSEM will have access to readily available information and that all information provided is correct and current. As we experienced during this event, new organizations formed and responded to this crisis and did not exist before Winter Storm Uri arrived. This is common in disasters and cannot be fully solved for ahead of a disaster. In the next event, we anticipate new groups will form again.

Proposed Implementation Plan:

- Work with Travis County Office of Emergency Management to develop a collaborative formal plan for involving the community in disaster preparedness and planning
- Create a structure to engage with County, regional, and nonprofits specifically to work through this improvement plan
- Explore opportunities to develop a more automated approach to receive and maintain contact information for community partners
- Create a structure to begin engaging with private sector, healthcare facilities, etc., to discuss their role in preparedness

Proposed Implementation Date: April 2023

Management Response

MEMORANDUM

To: **Corrie Stokes, City Auditor**

From: **Juan Ortiz, Homeland Security and Emergency Management**

Date: **November 4, 2021**

Subject: **HSEM Response to Disaster Preparedness Audit Recommendations 2021**

Homeland Security and Emergency Management response to the Audit Report: Disaster Preparedness the City Was Unprepared to Respond to Winter Storm Uri

This document sets community expectations and Council policy. In order to proceed, a policy level conversation regarding roles and responsibilities will be necessary to clarify the social contract between local government, community partners, private sector and the general public regarding disaster preparedness, response, recovery and mitigation. The goals of the conversation would be to foster the proper environment to engage in building a more resilient community, and to determine ensuring an effective transition of chronic long-term community challenges to the appropriate agencies and partners after a disaster. While a disaster response can provide some temporary relief to preexisting community conditions, it is an unrealistic expectation that it will conclusively and permanently resolve long standing equity and economic disparity within the response period. HSEM can begin the conversations with policy makers, response agencies, community organizations, and the private sector to formulate and implement strategies aimed at improving resiliency of community organizations and critical facilities, incentivizing mitigation efforts, expanding community disaster response capabilities, and fostering a disaster preparedness environment within the community. Once a clear path is determined, resources must be allocated to meet the level of preparedness and response expected of the City, and expected of HSEM. Given the increasing number and complexity of emergency events, and factoring in future climate change impacts, this conversation is critical.

Scope

The audit scope included the City's response to the February 2021 winter storm and related disaster preparedness plans, including the response and preparedness efforts of multiple City departments. This audit did not review:

- Technical aspects of the City's infrastructure or private infrastructure in the City
- Response activities of other entities, such as school districts, counties, Capital Metro, the Electric Reliability Council of Texas, or the State of Texas
- Technical operations in Austin Water or Austin Energy
- City 911 or 311 call center operations

Methodology

To complete this audit, we performed the following steps:

- Researched leading practices related to disaster planning and preparedness
- Evaluated internal controls related to disaster planning and preparedness
- Interviewed staff from key departments including the Office of Homeland Security and Emergency Management (HSEM), Austin Water, Austin Energy, Austin Police Department, Austin Fire Department, Emergency Medical Services, the Communications and Public Information Office, the Office of Sustainability, and the Equity Office
- Interviewed City Council members
- Interviewed external stakeholders, including industry experts and staff members from other levels of government and community organizations
- Interviewed staff from Hagerty Consulting, which led the City's after-action review and report process for Winter Storm Uri
- Reviewed relevant policies, performance indicators, and a sample of agreements related to disaster planning and preparedness
- Reviewed and analyzed relevant City plans, including the City's Emergency Operations Plan, the Hazard Mitigation Plan, and the Climate Resilience Action Plan for City Assets and Operations, as well as plans especially relevant to the City's response to Winter Storm Uri including those related to communications, sheltering, transportation, and human services
- Reviewed past after-action reports and corrective action plans from past emergency events including the Colorado River Flooding Event, Hurricane Laura, and Hurricane Harvey

- Observed Winter Storm Review Task Force meetings and reviewed the Task Force's final report
- Analyzed City press releases disseminated during the storm
- Analyzed tweets and social media messages disseminated February 7 – February 15 from the City of Austin, Austin Water, and Austin Energy.
- Analyzed Warn Central Texas messages disseminated during the storm.
- Analyzed internal communications to City leadership during the storm
- Analyzed the City's disaster preparedness education efforts
- Reviewed relevant training records
- Obtained and analyzed the Continuity of Operations (COOP) plans for major City departments including the Communications and Public Information Office, Austin Energy, Austin Water, Austin Police, Emergency Medical Services, and the Austin Fire Department
- Reviewed the status of a sample of past recommended actions from prior audits, corrective action plans, Council resolutions, past trainings, and the Climate Resilience Action Plan for City Assets and Operations
- Analyzed staffing data during the storm
- Examined peer city storm responses by Dallas, Fort Worth, Houston, and San Antonio
- Analyzed fatality data from the Travis County Medical Examiner
- Analyzed Warn Central Texas registration data
- Analyzed shelter and Public Points of Distribution locations for equity consideration
- Evaluated the risk of fraud, waste, and abuse in disaster planning and preparedness

Audit Standards

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The Office of the City Auditor was created by the Austin City Charter as an independent office reporting to City Council to help establish accountability and improve City services. We conduct performance audits to review aspects of a City service or program and provide recommendations for improvement.

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