

WINTER WEATHER READINESS

Workforce, Assets, and Operations



OFFICE OF
RESILIENCE





AGENDA

Winter 2023 – 2024 Outlook

One Austin: Resilience Framework

Citywide Preparedness Efforts

Operational Readiness

Next Steps

NATIONAL WEATHER SERVICE WINTER 2023-2024 OUTLOOK:

- **Public Notifications:**
 - Freeze Warning continues
 - Adding Ice Storm Warning
- **El Niño conditions forecast**
 - Near to below normal temperatures
 - Wetter than normal conditions
 - Slightly higher snowfall chance
 - Slightly higher severe chances



ONE AUSTIN: RESILIENCE FRAMEWORK



What is Resilience about?

Building resilience requires cities to address both **shocks** and **stresses** in an integrated way.



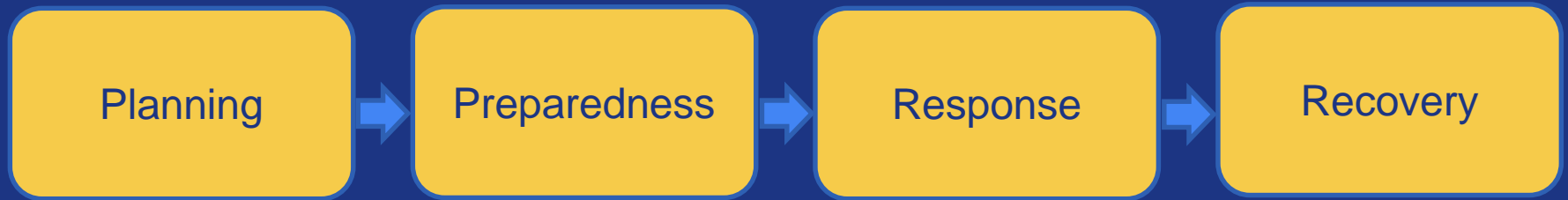
Natural and man-made
disasters, major system
disruptions



Vulnerabilities that afflict
communities on an everyday
basis

What is HSEM's purpose?

Emergency Management in the face of disasters



Resilience...

provides an overarching framework and long-term vision for preparing, adapting, and withstanding the impacts of shocks and stresses.



HSEM ...

focuses on the emergency management and operations, including planning and preparedness activities for specific shocks that result in major disruptions to communities.



CITYWIDE PREPAREDNESS EFFORTS: EMERGENCY MANAGEMENT

Homeland Security & Emergency Management

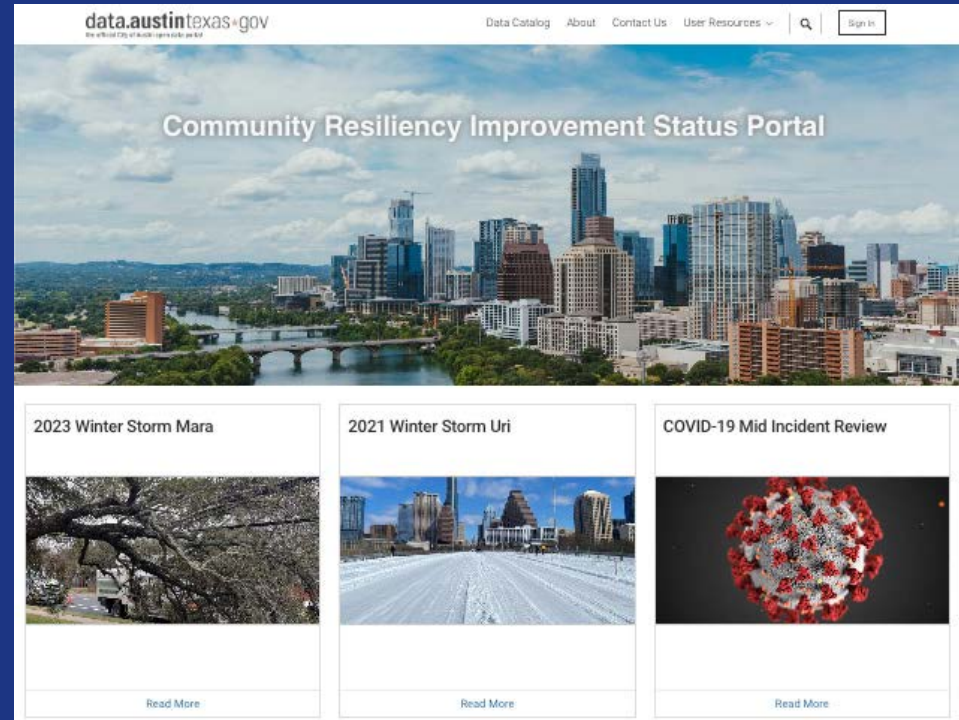


KEY TAKEAWAYS

- **One Austin Approach**
 - Conducting annual winter weather preparedness reviews
 - Table-top exercises with City departments & external agencies
 - Coordinated communications and training
- **Operational Readiness**
 - Assets prepositioned across the city
 - Schedules and staffing pre-determined
- **Council Engagement**
 - Council Liaisons
 - News Flashes
- **Community Preparedness**
 - Heavy focus on helping residents increase personal readiness
 - Concerted effort to communicate frequently, quickly, and effectively

PREPAREDNESS & RESPONSE CAPACITY: CHALLENGES

- Language access
- Communications/Outreach
- Community preparedness
- Emergency fatigue
- Staffing



PREPAREDNESS & RESPONSE CAPACITY: ACCOMPLISHMENTS

- Language Access Plan updated
- Recognized nationally by the Emergency Management Accreditation Program for pre-translated messaging in 14 languages as a **Best Practice**
- Community Engagement: *Neighborhood Preparedness Guide* and *Ready Together* training
- Hiring and expanding staff capacity
- Emergency Management Accreditation Process (EMAP) in progress
 - 40+ Departmental Continuity of Operations Plans (COOP)
 - 35+ Emergency policies and procedures
- Training and exercises for internal staff and elected officials
- Built internal informational and management platforms
 - Consolidated After-Action Reports resulting in *Community Resiliency Improvement Status Portal* (CRISP)
 - Project Tracker
 - Event management and support
- Updated Emergency Operations Plan, Winter Weather Plan, and created Food and Water Appendix

PREPAREDNESS & RESPONSE CAPACITY NEXT STEPS

- Increased staff capacity
- Enhanced training and drills
- Improve community readiness and resilience
- Improved mechanism to track and complete After-Action Report items
- Standardized process for After-Action Reports
- Embed learnings with Emergency Operations Plans and Appendix

CITYWIDE PREPAREDNESS EFFORTS: COMMUNICATIONS



JOINT INFORMATION CENTER (JIC)

Oversee accurate and effectively delivered emergency messages to help ensure public safety, protect property, facilitate response efforts, elicit cooperation, instill public confidence, and help residents recover from an emergency.

Responsibilities

- Coordinate and quickly deliver united emergency communication to the public and media
- Review and concur on departmental communication prior to disseminating
- Conduct press conferences, in coordination with County
- Serve as central point of contact for media
- Monitor and notify EOC of information from the public that requires response/action

Winter Weather Risks:

- Lack of staff to support the JIC due to holidays and unsafe travel conditions.
- Staff responding to the storm will also be personally impacted by the storm

Lessons Learned:

- Reinforce JIC as communications lead.
- Ensure all staff aware of JIC activation and must coordinate through the JIC.
- Expand JIC bench strength
- Need clear JIC staffing plan
- Expand pre-canned communication & translate

What are we doing to reduce risk and mitigate:

- Training communication staff across the organization
- Identifying staff to work the JIC in advance of each emergency
- Early coordination with language access vendors and City staff to assist with translation needs

What will we do differently operationally:

- Implementing new citywide emergency communications protocols
- Battle rhythm will be clearly established and communicated early in response
- Expand use of available tools – including text messaging – to notify public of emergency conditions

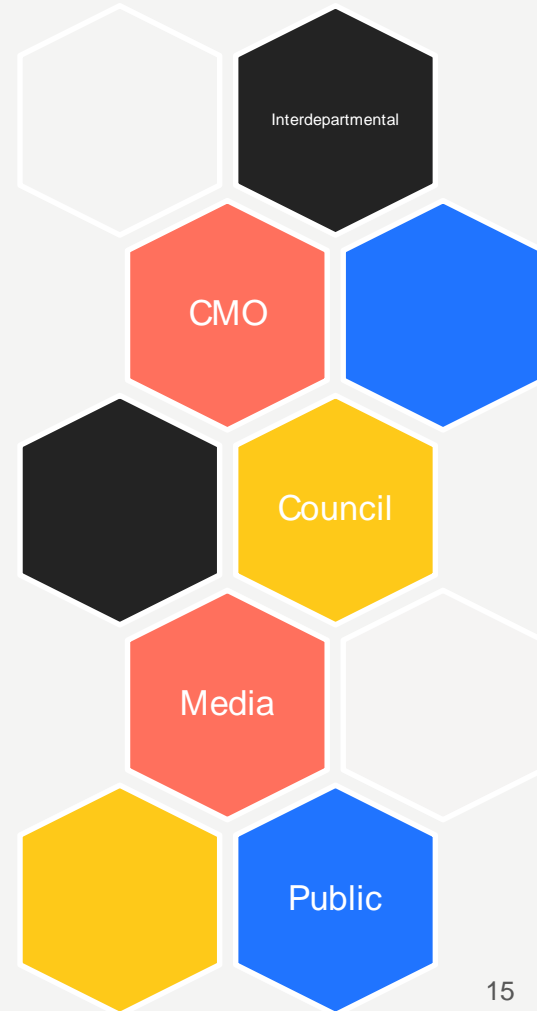
COMMUNICATION WITH COUNCIL

Council Liaison Officer

- Serve as direct line from EOC for elected officials
- Get information from Elected Officials and share with EOC
- Coordinate with Department Operation Center (DOC) Liaisons
- Review News Flash with Policy Comms Lead and Lead PIO

News Flashes

- Issued by Communication & Public Information Office (CPIO)
- First and fastest method of Council-wide updates as emergency situations evolve
- Includes messaging to share with constituents
- Notifies when press releases are issued



CITYWIDE PREPAREDNESS EFFORTS: CITY WORK FORCE



City Workforce

Human Resources Department

Actions to support City workforce



Coats and other
durable clothes

Additional
warm clothing

Access to facilities
with heat

Weather forecast
monitoring

Facility protections

Traction devices to
operate on ice

Staff reassignment
and volunteers

Hotel contracts to
pre-position City staff

Essential worker policy

Food contracts
for staff

Cold weather training

Standardization across
City departments

OPERATIONAL READINESS: UTILITIES & INFRASTRUCTURE



UTILITIES & INFRASTRUCTURE

Austin Energy * Austin Water * Aviation *
Transportation & Public Works

Lessons Learned:

- Hardened equipment & facilities
- Secure employee safety supplies to mitigate risks
- Ongoing status communication to public
- Planned preparedness communications with customers

Winter Weather Responsibilities

- 24/7 essential operations
- Winterize infrastructure
- Restore utilities and roadways
 - Conduct anti-icing, de-icing, and snow-clearing activities
 - Support debris removal from roads and rights of way
 - Address high-risk dark signals
- Safe and timely transportation of emergency supplies

What are we doing to reduce risk and mitigate:

- Updating procedures and plans for staffing, de-icing, snow clearing, fueling, fleet preparations
- Implement & communicate damage assessment activities
- Acquiring & installing emergency backup generators
- Trained communications staff on new Citywide emergency communications protocols
- Cross training staff to assist with dark traffic signals
- Prioritizing impactful action items such as maps and damage/outage assessments

UTILITIES & INFRASTRUCTURE

Operational Readiness

- Generators in place at critical facilities, with emergency backup generator contracts that can be called in immediately if needed
- Staging equipment, materials, and people ahead of incoming weather
- Purchased additional devices to apply anti/de-icing materials
- Have generators + temporary stop sign set-ups to deploy to 75 signalized intersections
- Plans, supplies, and equipment in place for community-wide potable water distribution
- Secured employee personal protective equipment (PPE)
- Updating prioritized roadways and critical facilities to increase access

OPERATIONAL READINESS: LOGISTICS SUPPORT



LOGISTICS SUPPORT

Austin Resource Recovery * Watershed Protection *
Communications & Technology Management *
Building Services Department * Fleet Services

Lessons Learned:

- More emergency backup generators at critical sites
- Ensure generators are fueled/ready to deploy in advance of extreme weather arrival/emergency declaration
- Need traction devices (ex. tire chains) and 4-wheel drive vehicles
- Need inventory of vulnerable equipment

Winter Weather Responsibilities

- Ensure City maintains regular curbside collection
- Remove debris from culverts and drainage systems
- Process debris collected by City operation
- Ensure City buildings are operational, safe, & comfortable
- Maintain an operationally ready fleet
- Maintain City fuel infrastructure & supply chain
- Rapidly deploy/set up equipment & provide tech support
- Support water distribution points

What are we doing to reduce risk and mitigate:

- Identified and implemented cold weather personal protective equipment and vehicle preparation requirements
- Leverage rental contracts for backup generators, passenger vans, and other critical equipment
- Implemented seasonal fuel policy removing biodiesel during December thru March
- Implemented citywide pre-season traction device training
- Established citywide purchasing contract to enable departments to purchase traction devices

LOGISTICS SUPPORT

Operational Readiness

- Established contracts for additional collection equipment rentals
- Established contracts to provide supplemental debris collection services during an emergency storm event
- Acquiring & installing emergency backup generators at various critical locations
- Purchased additional brush trucks for debris removal
- Increased fuel supply from 14 days of supply to 21 days
- Retooled mobile on-call techs with truck, tools, and equipment
- Installed a best-in-class GPS/Telematics system to provide real-time insight into all operational fleet assets
- Expanded fuel distribution with mobile fuel pods trailers

OPERATIONAL READINESS: COMMUNITY CAPACITY & SUPPORT



COMMUNITY CAPACITY & SUPPORT

Homeless Strategy Office * Downtown Austin
Community Court * Austin Public Health * Parks &
Recreation * Austin Public Library * Austin Animal
Center * Resilience Office * Sustainability Office *
Equity Office * Development Services Department

Lessons Learned:

- Weather conditions can change rapidly and information flow to unhoused neighbors can be difficult
- Need additional staff, including social workers, medical personnel, and law enforcement at shelters and warming centers
- Need additional embarkation point(s)
- Improve communication of available City resources to the public
- Improve relationships, coordination, and communication with community organizations

Winter Weather Responsibilities

- Activate cold weather overnight shelters
- Activate & staff warming centers during regular business hours
- Coordinate embarkation hub (at One Texas Center)
- Plan and coordinate Multi-Agency Resource Centers (MARC)s
- Operate public health medical branch
- Support mass care branch, providing life-sustaining and social services to the community
- Train and oversee community health worker teams to provide on-the-ground outreach in the community during an emergency

What are we doing to reduce risk and mitigate:

- Preparing six (6) recreation centers with redundant power source (generators)
- Replenishing inventory of sheltering supplies at pre-identified sites
- Developing a robust Community Health Worker (CHW) plan and training to be able to deploy foot teams in community
- Established and providing information at resilience hubs
- Identifying point of contact for community organizations during emergencies
- Developing a comprehensive approach to food and water distribution during emergencies.

COMMUNITY CAPACITY & SUPPORT

Operational Readiness

- Contracted with provider for Cold Weather Shelter operations
- Identified embarkation hub staffing from December through March in event of cold weather shelter activations.
- Implemented new text message system for alerts, which includes 3,000+ phone numbers of people experiencing homelessness.
- Coordinating with outreach groups that work with people experiencing homelessness.
- 14 City Resilience Hubs are being equipped with supplies and receiving infrastructure upgrades, while Community Resilience Hub program is beginning to launch in 2024
- Worked with Building Services to ensure Animal Center HVAC systems are serviced and properly working.
- Scheduled staff and secured cots for Animal Center staff to stay overnight to care for animals.
- Stored and maintaining steady number of blankets for animals.

OPERATIONAL READINESS: PUBLIC SAFETY



PUBLIC SAFETY

Austin Police Department * Austin Fire
Department * Austin/Travis County
Emergency Medical Services

Lessons Learned:

- Initial staffing considerations need to take scaling effects into account
- Need more personnel gear issued
- Need refresher training for rarely used equipment
- Need adequate crew rest facilities
- Need better coordination for shelter security

Winter Weather Responsibilities

- Respond to increased 9-1-1 calls and traffic incidents
- Assist with shelter security, as needed
- Preserve hospital capacity via treat-at-home capabilities
- Provide harm reduction for unhoused individuals
- Manage impacted non-acute medical treatment

What are we doing to reduce risk and mitigate:

- Plans in place to utilize limited staffing when needed to provide security coverage for shelters
- Installation of backup generators at designated public safety facilities
- Pre-staging equipment provisions, including food, water, cots, blankets & pillows
- ATCEMS purchased 6 ambulances with 4 wheel drive capability and will monitor/assess effectiveness during extreme weather conditions once they arrive

PUBLIC SAFETY

Operational Readiness

- Backup generators at designated police stations and portable generators have been identified and are available for Fire/EMS stations that lose electricity.
- Food, water, cots, blankets, and pillows are pre-staged at police facilities for emergency situations.
- All Fire and EMS apparatus have been inventoried and have maintained tire chains to enable response on iced roadways.
- Issuing personal boot traction devices for staff to affix to their work boots.

NEXT STEPS

- **Infrastructure & Logistics Support**
 - TPW and WPD will cross-train staff to assist with dark traffic signals
 - Roadway prioritization to access Warming Centers/Cold Weather Shelters underway
 - Enhance relationships with community groups
- **Improve community readiness and resilience**
- **Continuous Improvement**
 - Improved mechanism to track and complete After-Action Report items
 - Standardized process for After-Action Reports
 - Embed learnings with Emergency Operations Plans and Appendix
 - Continued interdepartmental coordination

KEY TAKEAWAYS

- **One Austin Approach**
 - Conducting annual winter weather preparedness reviews
 - Table-top exercises with City departments & external agencies
 - Coordinated communications and training
- **Operational Readiness**
 - Assets prepositioned across the city
 - Schedules and staffing pre-determined
- **Council Engagement**
 - Council Liaisons
 - News Flashes
- **Community Preparedness**
 - Heavy focus on helping residents increase personal readiness
 - Concerted effort to communicate frequently, quickly, and effectively

HOW CAN YOU HELP?

- Share Preparedness Guides and encourage personal preparedness
- Attend HSEM trainings
- During emergency activations, work with the Council Liaison Officer to assist the community and communicate your constituents' needs to the Emergency Operations Center (EOC).

Q&A

Thank you for your support as we work in partnership to prepare for this upcoming winter season.

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APPENDIX: DEPARTMENT READINESS



OPERATIONAL READINESS: UTILITIES & INFRASTRUCTURE



AUSTIN ENERGY

Safely deliver clean, affordable, reliable energy and excellent customer service — 24 hours a day, 365 days a year.

Winter Weather Responsibilities

- Winterize electric infrastructure
- Restore power when winter weather events occur
- Prepare staff for response
- Assist community to get ready and stay ready

Winter Weather Impacts:

- Extreme winter weather, ice and snow, can impact the ERCOT grid broadly or the local distribution system.
- Both situations can lead to power outages

Lessons Learned:

- Austin Energy identified over 80 action items post-Winter Storm Mara, available in the Citywide After Action Report

What are we doing to reduce risk and mitigate:

- Prioritizing impactful action items
 - Damage Assessment
 - Outage Map
 - Communications

What will we do differently operationally:

- Follow new City-wide Emergency Communications Protocols
- Activate redesigned Austin Energy Incident Management Team
- Implement & communicate damage assessment activities & phased approach to restoring power

AUSTIN WATER

Provides safe, reliable, high-quality, sustainable and affordable water services to our customers so that all community needs for water are met.

Winter Weather Impacts:

- Treatment facilities, pump and lift stations, and pipelines can be directly impacted by freezing weather if power is lost or pipes & equipment freeze
- Water outages or loss of pressure can impact service to customers
- Wastewater overflows can impact creeks

Lessons Learned:

- Prepare for prolonged freeze events
- Harden equipment & facilities
- Implement extreme weather activation thresholds for Incident Management team
- Plan preparedness and emergency customer communications

What are we doing to reduce risk and mitigate:

- Enhanced facility power resiliency
- Expanded Incident Management Team
- Real-time outage map in place year-round
- Provided winter weather toolkits & tips to customers

What will we do differently operationally:

- Large generator in place at critical pump station; emergency backup generator contracts in place
- Plans, supplies, and equipment in place for community-wide potable water distribution
- Joint Information Center responders identified for deployment to Emergency Operations Center

Winter Weather Responsibilities

- Winterize water and wastewater infrastructure
- Support community preparation
- Prepare for power outages and access issues at treatment and pumping facilities
- Prepare staff for response
- Distribute potable water if needed

AVIATION

To provide safe journeys to the world, economic opportunity to our community, and to be the employer of choice.

Winter Weather Impacts:

- Ice and snow on runways can halt or delay ground operations
- Ice and snow on roads can limit ability of travelers and employees to access airport safely
- Extreme weather can lead to closure of airport

Lessons Learned:

- Ongoing communication
- Activate Department Operations Center
- Staff readiness
- Preparation for winter weather impacts
- Enhanced and aligned communication to travelers and airlines

What are we doing to reduce risk and mitigate:

- Annual winter weather preparedness review
- Table-top exercises with external agencies & airlines
- Updating procedures and plans for staffing, de-icing, snow removal, fueling, stranded passenger support, concessions, food

What will we do differently operationally:

- Staff training and communications
- Interdepartmental alignment

Winter Weather Responsibilities

- 24/7 essential operations, unless dictated by Federal Aviation Administration
- Ensuring airport infrastructure is maintained
- Coordinate with other entities at airport: airlines and flight operations, TSA and security checkpoint operations, air traffic control

TRANSPORTATION AND PUBLIC WORKS

To provide safe, reliable, and accessible mobility services for all.

Winter Weather Responsibilities

- Conduct anti-icing, de-icing, and snow plowing activities
- Manage high risk dark signals
- Remove debris from roadway
- Post messages to electronic message boards
- Coordinate with other departments and agencies, support other community needs (water distribution, shelters, etc)

Winter Weather Impacts:

- Degradation of street network condition due to ice, snow, and debris creating unsafe driving conditions for the public and emergency services, and to access critical facilities
- Signal outages increasing risk of intersection crashes

Lessons Learned:

- More technical and managerial training
- Clear Incident Command System (ICS) structure
- Dark signal management standard operating procedures (SOP)
- Centralized communication channel to share information
- More TPW staffing resources needed to cover Emergency Operations Center (EOC)
- Update priority roadways and critical infrastructure (anti-/de-icing, plowing, debris removal)

What are we doing to reduce risk and mitigate:

- Trained 100+ staff over 12 hours on key tasks and expectations.
- Adopted ICS framework and trained 20+ staff (ICS 100, 200).
- Finalizing dark signal management SOPs.
- Purchased backup generators and have temporary stop sign set-ups to deploy to 75 signalized intersections in total.
- Purchased additional devices to apply anti-/de-icing materials

What will we do differently operationally:

- Increase staff and equipment available to treat roadways.
- Utilize ICS framework and implement EOC staffing plan
- Implement dark signal management SOPs.
- Use Teams to centralize information sharing.
- Use updated priority roadways to prioritize and manage available resources.

OPERATIONAL READINESS: LOGISTICS SUPPORT



AUSTIN RESOURCE RECOVERY

Provides a wide range of services designed to transform waste into resources while keeping our community clean.

Winter Weather Responsibilities

- Ensure the City maintains curbside collection operations
- Collect and process bulk and brush storm debris resulting from an inclement weather emergency event

Winter Weather Impacts:

- Hazardous road conditions
- Weather-related vehicle breakdowns
- Employee availability issues due to inclement weather

Lessons Learned:

- The need for an emergency event departmental command center
- The need to coordinate cold weather event equipment
- The need for additional releases for vendor services in gated communities

What are we doing to reduce risk and mitigate:

- Identified and implemented additional cold weather PPE and vehicle preparation requirements
- Established a departmental emergency event control center to coordinate departmental emergency event operations, equipment, personnel, vendor management, external coordination and communications
- Established contracts for additional collection equipment rentals and to provide supplemental debris collection services during a storm event

What will we do differently operationally:

- Will conduct additional training regarding cold weather vehicle equipment and will implement extreme cold weather vehicle preparation protocols prior to event
- Will conduct just-in-time training for FEMA paperwork requirements
- Will activate the newly formed departmental control center before emergency event

WATERSHED PROTECTION

Protects lives, property and the environment of our community by reducing the impact of flood, erosion and water pollution.

Winter Weather Responsibilities

- Support citywide unmet needs such as debris collection efforts, roadway clearance, and other duties as needed.

Winter Weather Impacts:

- Debris in public right of way (ROW) blocking inlets
- Debris in channels and culverts blocking stormwater conveyance
- Hazardous road conditions
- Employee availability issues
- Potential for power loss at field facilities

Lessons Learned:

- Competing needs between citywide and Watershed Protection Department (WPD) mission areas for debris removal.
- Lack of a uniform approach to resolve unmet needs across City departments
- Lack of uniformity and understanding of different departmental processes
- Multiple directives from various, uncoordinated systems with conflicting instructions

What are we doing to reduce risk and mitigate:

- Incident Command System (ICS) training for all WPD managers
- Installed backup generators at key field locations
- Obtained traction control devices and training for 38 vehicles
- Developed WPD internal emergency response plan for debris removal
- Procured two new brush trucks
- Finalizing hire of new vegetation crew for debris removal and vegetation management (FY24 budget)

What will we do differently operationally:

- Deploy WPD Department Operations system based on ICS framework
- Mission appropriate emergency actions based on agreed upon trigger levels
- Continuous monitoring of high priority work orders via decision support tools
- Perform post storm inspections and prepare short- and long-term mitigation measures

BUILDING SERVICES

Ensures City facilities are equipped and departments are operational by ensuring spaces in which they operate are open, safe, and comfortable.

Winter Weather Responsibilities

- Help departments conduct their business.
- Keep other departments operational by making sure doors are open, lights are on, and buildings are safe and comfortable.

Winter Weather Impacts:

- Loss of power, frozen pipes, water leaks, ingress/egress issues, HVAC issues, and emergency back up generator issues at City of Austin Facilities.
- Driving conditions impact the ability to respond to tenant/building needs

Lessons Learned:

- Need for more emergency back up generators at Public Safety and critical infrastructure sites.
- Need for tire chains/4-wheel drive vehicles.
- Inventory of vulnerable equipment

What are we doing to reduce risk and mitigate:

- Acquiring and installing of over 80 emergency backup generators
- Identification of vulnerable equipment and proactive steps to minimize the impact of winter weather events.
- Implementation of a Security Operations Center to monitor City facilities.
- Addition of tire chains to all on-call/service trucks.

What will we do differently operationally:

- Provide training to staff on emergency response procedures.
- Take proactive steps prior to winter weather events to minimize impact on vulnerable equipment.
- Proactively monitor facilities from the Security Operations Center to determine facility impacts.

FLEET MOBILITY SERVICES

Manages 7,000+ fleet assets across 25 departments. Departments include public works and emergency services

Winter Weather Responsibilities

- Maintain an operationally ready fleet providing critical support to departments to ensure the continuity of city services before, during and after emergencies
- Maintain city fuel infrastructure and supply chain including mobile dispatch, for vehicles, generators, and other equipment before, during, and after emergencies.
- Provide vehicles and equipment along with technical and logistical support for the receipt and distribution of supplies during and after emergencies.

Winter Weather Impacts:

- Fuel supply disruptions
- Vehicle “no starts” due to cold weather
- Impaired driving conditions resulting in increased demand for mobile technician deployment.
- Increased demand for additional vehicles and equipment directly related to emergency.

Lessons Learned:

- Need to identify drivers for transporting people and supplies should other resources become unavailable.
- Ensuring that power to critical private infrastructure needed for fuel supply is prioritized.

What are we doing to reduce risk and mitigate:

- Enhanced and retooled mobile on-call technicians’ trucks’ tools and equipment
- Increased fuel supply from 14 days of supply to 21 days
- Expanded fuel distribution with mobile fuel pods trailer

What will we do differently operationally:

- Cross-trained staff for Emergency Operations Center (EOC) operations
- Established a comprehensive after-hours staffing plan
- Comprehensive continuity of operation plan (COOP) in place with extensive before, during, and after emergency event planning
- Performing seasonal maintenance awareness campaigns, including HVAC systems
- Implemented citywide pre-season traction device training program
- Installed a best-in-class GPS/Telematics system to provide real-time insight into all operational fleet assets
- Implemented seasonal fuel policy removing biodiesel (Dec – Mar)
- Leveraged rental contracts for backup generators, passenger vans, and other critical equipment for City facilities

COMMUNICATIONS & TECHNOLOGY MANAGEMENT

Focuses on the delivery and operations of vital IT infrastructure network and telecommunications services, continuous service improvement, and solutions to enable customer success.

Winter Weather Responsibilities

- Technical resource and support to activate Emergency Operations Center (EOC)
- Maintain inventory of computers, printers, and audio-visual equipment for rapid deployment in emergency shelters and command centers.
- Ensure setup and support, and the computer inventory is regularly patched, ensuring quick deployment upon notification
- Ensure emergency communications via the Greater Austin-Travis Regional Radio System (GATRRS) radio system is maintained through system redundancy

Winter Weather Impacts:

- As bad weather is predicted, teams ensure generators are fueled and equipment is ready in case it is required.
- Power outages longer than 20 minutes inside of City-owned and leased facilities could impact functionality of phones and computers.

Lessons Learned:

- Website resiliency, new design for high traffic during disasters.
- Ensuring that generators are fueled and ready for deployment prior to the emergency declaration.
- Incident Command Policy and procedures for on-call staff are in place.
- MIFIs are a possible alternative when power is an issue, but they do need to be charged.
- One of the largest risks during winter events are the power outages. Remote workers in diversified physical locations can assist with continuity of operations.

What are we doing to reduce risk and mitigate:

- CTM has battery Uninterruptible Power Supplies (UPSs) and building power generators on main sites along with a number of mobile generators.
- CTM also has a resilient data center with 100% uptime and diverse Internet paths and a robust backup center.
- A mobile trunked radio site, operated by GATRRS, is a mobile site ready to be deployed, as needed, to provide radio signal coverage throughout Austin-Travis County, Capital Area Council of Governance (CAPCOG) region, State of Texas, or beyond.
- The City of Austin owns two FirstNet Mobile Cell Sites, with satellite uplink, ready to deploy as needed during emergencies, for priority public safety communications.

OPERATIONAL READINESS: COMMUNITY CAPACITY & SUPPORT



Capability Type	What it is	Facility type	Who it serves	Resources at facility	What triggers the facility to activate	When the facility is operational
Mega Disaster Shelter	Overnight shelters for local or statewide residents who are displaced after a major disaster.	Marshaling Yard Warehouse	Galveston point to point for hurricane evacuation or local citywide disaster displacement.	Overnight shelter with sleeping facility, toilet, showers, meals, social services.	When local or state leaders decide that due to a natural disaster or an emergency, people are displaced.	During emergency EOC activation.
Emergency Disaster Shelters	Overnight shelters for local population who are displaced due to an emergency or natural disaster.	Recreation Centers	Everyone	Overnight shelter toilet, sleeping facility, meals. Some social services may be available depending on scope of event.	When city or county leaders decide that due to a natural disaster or an emergency, people are displaced and quickly need shelter.	During emergency EOC activation.
Cold Weather Shelters (CWS)	A facility set up for overnight stays to provide shelter from extreme cold temperatures.	Recreation Centers	Primarily for unhoused population. Also for anyone needing overnight shelter.	Basic needs - toilet, sleeping facility, meals during extreme cold temperatures	When these overnight temperature thresholds are met: 32 degrees or below & dry; 35 degrees or below and wet; 35 degrees with wind chill factor that drops the temp to 32 degrees or lower	When temperature triggers are met. <i>Could become warming centers during day if conditions meet temperature thresholds.</i>
Warming/ Cooling Centers	Temporary reprieve from extreme hot/cold weather	Libraries, Recreation Centers, Community Centers,	Everyone	Temporary reprieve from extreme hot/cold. Does not include overnight shelter, meals or social services.	Accessible to public when needed, especially during extreme cold forecasts	During normal business hours or if triggered by the Winter Weather/Heat Plan.
Information Hubs	A community-focused physical facility that offers infraction on day-to-day services and supports the community before, during, and after a disaster. It complements emergency response and operation by offering information and other resources for community resilience and preparedness.	Recreation Centers, YMCA facility	Everyone	Hubs can offer information, accessible bathrooms, and cell phone charging, others can offer refuge to community members and provide food and water. Can serve as warming centers, cooling centers. Preparedness resources and information. Plus regular scheduled programming.	Resilience Hub functioning as an information center does not require activation and is open to the public during normal business hours. Does not require activation, open to the public during normal hours of operation.	Operates during normal business hours.
Food and Water Distribution Center	A facility that has a large space that serve as a focal point for water, food and meals distributed to community	Facilities with large entrances, parking loads, and space for palletized goods	Everyone	Food water and potentially other supplies	When city or county leaders decide due to a natural disaster or an emergency, people are in need of food, water or supplies.	During EOC activation or recovery
Community Resilience Hub	A community or privately owned facility that can serve any of the above, but is owned and operated by a private or nonprofit partner	Depends on the services provided	Everyone	Depends on the facility type and types of services provided	NA, but City will coordinate before, during and after disaster	NA, but City will coordinate before, during and after disaster.

HOMELESS STRATEGY OFFICE

Coordinates services and resources for individuals experiencing homeless, to ensure they have access to information, weather alerts, and shelter during any winter weather situation.

Winter Weather Responsibilities

- Activate Cold Weather Shelters for up to 300 individuals when the overnight weather temperatures reach the threshold of 32 degrees (or 35 degrees with rain or wind chill of 32 degrees)
- Coordinate with Downtown Austin Community Court to establish embarkation hub for intake
- Partner with Austin Public Health and Homeland Security & Emergency Management if more than 300 individuals require overnight shelter.

Winter Weather Impacts:

- Exposure to extreme cold temperatures for unhoused individuals can lead to death and increased hospital visits
- Need for Cold Weather Sheltering operations

Lessons Learned:

- Weather predictions can change rapidly and information flow to individuals who are homeless can be difficult
- Increased staff support is needed

What are we doing to reduce risk and mitigate:

- New text message system for alerts, which includes over 3,000 phone numbers.
- Increase enrollment in text message alert system
- Contract with provider for Cold Weather Shelter operations
- Coordination with Homeless Outreach Groups

What will we do differently operationally:

- Working closely with the community homeless service agencies, including the provider for Cold Weather Shelters, for proactive communication and outreach

DOWNTOWN AUSTIN COMMUNITY COURT

Collaboratively addresses the quality of life issues of all residents in the downtown Austin community through the swift, creative sentencing of public order offenders.

Winter Weather Responsibilities

- Supports Homeless Strategy Office with Cold Weather Shelter (CWS) activities.
- Coordinates the embarkation hub at One Texas Center (OTC)

Winter Weather Impacts:

- Winter weather events primarily impact unhoused individuals, a population DACC has established relationships with

Lessons Learned:

- Prepositioning staff to operate the embarkation hub is critical to ensure proper staffing levels
- OTC is not large enough to serve as the sole embarkation hub for CWS activations

What are we doing to reduce risk and mitigate:

- Staffing for possible CWS activations has been coordinated from December 1st through March 31st.

What will we do differently operationally:

- A second, and possibly a third embarkation hub needs to be established to best accommodate all individuals seeking access to CWS.

AUSTIN PUBLIC HEALTH

Ensures that the community is protected from disease and other public health threats, and empowers others to live healthier, safer lives.

Winter Weather Responsibilities

- Planning and coordinating multi-agency resource centers (MARC)s
- Analyze emergency department visits to see impact on community
- Operate public health medical branch
- Support mass care branch
- Support Homeless Strategy Office with cold weather shelters (CWS) activation for up to 300 individuals
- Update the CWS hotline

Winter Weather Impacts:

- Increased emergency department (ED) visits to hospitals, especially carbon monoxide poisoning
- Challenges with commuting and doing programmatic work in the community (ex: mobile vaccine program)
- Increase work of Environmental Health Investigators if pipes burst or changes to restaurants
- If shelters open for general population – food inspections, infection prevention, and case management

Lessons Learned:

- Importance of collaborating with community organizations to share messaging
- Importance of submitting situation reports and maintaining up to date communications

What are we doing to reduce risk and mitigate:

- Updated the existing Multi-Agency Resource Center (MARC) Annex based on experiences
- In Progress - Development of a robust Community Health Worker (CHW) plan & training to be able to deploy CHW foot teams in the community during an emergency
- Internal cold weather shelter table-top exercise identify gaps and provide training to staff
- Understanding community needs – Community Assessment for Public Health Emergency Response (CASPER) 2023

What will we do differently operationally:

- Use new CHW foot team plan to deploy CHW out in the field during emergencies
- Enhanced MARC operations based on lessons learned from previous MARC
- Continue cold weather sheltering and supporting mass care branch

PARKS AND RECREATION

Inspires Austin to learn, play, protect and connect by creating diverse programs and experiences in sustainable natural spaces and public places

Winter Weather Responsibilities

- Support sheltering at pre-identified sites as requested with physical assets and personnel
- Support emergency response as needed utilizing physical assets and equipment
- All recreation, senior, and cultural centers serve as warming centers during business hours

Winter Weather Impacts:

- Damage to community assets is unpredictable or unavoidable
- Damage to vegetation
- Disruption to regularly planned PARD programs

Lessons Learned:

- Coordinating response efforts is key to comprehensive service delivery to the community
- Additional staff capacity is needed to support PARD facilities within extended hours

What are we doing to reduce risk and mitigate:

- Preparing six recreation centers with redundant power source (generators) in collaboration with Building Services, Homeland Security & Emergency Management (HSEM), and Office of Resilience.
- Replenishing inventory of sheltering supplies at pre-identified sites.
- Hosting training and table top exercises to increase department preparedness

What will we do differently operationally:

- Continue to support HSEM
- Advocate for support of staff at facilities to ensure shelters and warming centers can remain open

AUSTIN PUBLIC LIBRARY

Provides knowledge, technology, and inspiration to the Austin community. The Library is a hub of books and education, a meeting place of minds, and an incubator of ideas.

Winter Weather Responsibilities

- Operate as cooling/warming centers during business hours as deemed necessary by the City.
- Can transition to an emergency relief center at specific facilities when required.

Winter Weather Impacts:

- Roadway conditions impact staff's ability to staff a facility once activated
- Weather conditions may impact library operations (e.g. debris block entries/access, water pipes or heating systems not functioning, etc)

Lessons Learned:

- If activating warming or cooling centers, notify Library staff no later than 8am Wednesday before the impacted weekend.
- Identify more effective way to staff relief centers, including support from staff of other departments and agencies
- Need social workers, medical emergency personnel, and security/law enforcement
- Identify alternative incentives to work an extended shift, especially for staff that are either not full-time or exempt.

What are we doing to reduce risk and mitigate:

- Adjusting APL's service model to be open when a relief center would be activated.
- Established a Library Emergency Operations Team made up of management personnel who will authorize activation of the Library's Continuity of Operations Plan (COOP).

What will we do differently:

- During the relative months, Ruiz, Terrazas, and Little Walnut will shift their normal operating hours to remain open until 8pm on Friday, Saturday and Sunday with advanced notice and coordination.

AUSTIN ANIMAL CENTER

Serves as the municipal shelter for the City of Austin and unincorporated Travis County, providing shelter to thousands of animals annually as well as providing animal protection and pet resource services. Accepts stray and owned animals regardless of age, health, species or breed.

Winter Weather Responsibilities

- Ensure the care of animals at AAC occurs on a daily basis, despite emergency situations
- Provide crates/pet supplies at cold weather shelters and warming centers for pets to stay with their owners.

Winter Weather Impacts:

- Response times for service calls in the community are impacted. Animal Protection vehicles are heavy (due to animal boxes) and not 4x4.
- HVAC systems may malfunction due to weather conditions.
- Slick walkways around shelter can be hazardous for shelter staff and dogs taken out for walks.

Lessons Learned:

- Utilized cat litter on ground to reduce ice and slick walkways.
- Proactive maintenance of HVAC system to ensure durability during cold weather periods.

What are we doing to reduce risk and mitigate:

- Secured cots for staff to stay overnight to care for animals on a consecutive basis.
- Utilize staff with experience driving in cold weather to carpool and pick up staff to bring to the shelter for care of animals.

What will we do differently operationally:

- Schedule staff for overnight stay to begin care for animals the following morning and on a consecutive basis.
- Staff with experience driving in cold weather will pick up staff to bring to the shelter for care of animals.

DEVELOPMENT SERVICES DEPARTMENT

Helps homeowners, business owners, and contractors ensure compliance with applicable City and building codes when they build, demolish, remodel, or perform any construction in the City of Austin and when planning special events.

Winter Weather Responsibilities

- Support City's response efforts
- Provide plan review and permitting functions to assist community members who need to make repairs following a winter weather event.

Winter Weather Impacts:

- Certain service teams can operate remotely if connectivity is available.
- Field operations teams can only re-engage when roads are accessible to the public. Until then, except on a limited emergency basis, field services like building inspections are temporarily placed on hold.

Lessons Learned:

- DSD is severely crippled when the loss of utilities is at the root of the winter event.
- Ice storms present a different set of challenges than snow. Other than sand being placed on the road after the fact, there are no safe options for driving on ice.
- Flooding after extreme snow or ice presented its own set of unique challenges.
- The availability of water for health/sanitation was essential to daily activities while sheltering in place
- Need to invest in survival kits that could sustain up to 100 employees forced to shelter in place for up to 72 hours. Purchased two such units.

What are we doing to reduce risk and mitigate:

- Established agreements with Austin Police Department (APD) substation(s) to allow the closest dispatcher to use APD facilities to communicate with DSD field operations teams.
- Awaiting shipment for additional two-way and satellite radios to ensure communication of field operations
- Field operations vehicles remotely located throughout city/county, allowing DSD to dispatch units/vehicles from various areas, limiting required driving distances during hazards
- Modified and tested our Continuity of Operations Plan (COOP) for extreme catastrophic events.
- Provided necessary personal protective equipment (PPE) and health items
- Prepared/winterized trucks utilized by essential personnel.
- Set up an on-call protocol for trained field operations staff to safely operate the winterized vehicle when we have been cleared to drive in certain areas.
- Ensure that staff has received the proper training and understands their role during an emergency.

OPERATIONAL READINESS: PUBLIC SAFETY



AUSTIN POLICE

Provides 911 emergency response and serves as the principal law enforcement agency serving Austin, Texas.

Winter Weather Responsibilities

- Respond to emergency calls for assistance
- Coordinates with public safety partners, including Building Services department, to ensure adequate security for City cold weather shelters after the contract has been fulfilled.

Winter Weather Impacts:

- Staffing, increased traffic/collision potential, and security for shelters.

Lessons Learned:

- Security coordination can be last minute pending notification of CWS activation.

What are we doing to reduce risk and mitigate:

- Plan in place to utilize its limited staffing when needed to provide coverage for CWS.
- Backup generators available at designated police stations.
- Food, water, cots, blankets, and pillows have been pre-staged at police facilities for emergency situations.

What will we do differently operationally:

- APD will continue to communicate with HSEM and APH to get the earliest notification of CWS activation to improve response needs for security.

AUSTIN FIRE

Provides fire prevention and 911 emergency fire response to the Austin area.

Winter Weather Responsibilities

- Works with its internal division and support departments to assure that operational units are equipped and enabled to provide emergency response to residents of Austin, and that our work force is safe and protected while working 24/7.

Winter Weather Impacts:

- Potential loss of power at fire stations, road conditions that could impact response and any impacts on communication infrastructure.

Lessons Learned:

- Adequate energy redundancy at fire stations needed to provide a safe locations for operations to recover and be ready for response.
- Adverse road conditions either reduced response speeds and/or trapped fire apparatus reducing available vehicles to respond.

What are we doing to reduce risk and mitigate:

- Worked with Building Services Department to address electrical redundancy needs at fire stations
- Worked with Transportation Public Works to prioritize our primary response routes are maintained
- Worked with Williamson County Sheriff's Department to ensure redundant communication methods to advise response units of critical information for emergent incidents.

What will we do differently operationally:

- Proactive upstaffing of operations and dispatch to provide added capacity for anticipated increased call volume.
- Portable generators have been identified and are available for stations that lose electricity.
- All apparatus have been inventoried and have maintained tire chains to enable response on iced roadways.
- Biodiesel cold temperature issues have been identified and fuel tanks have been converted to a fuel that will not be compromised by freezing temperatures.

AUSTIN/TRAVIS COUNTY EMS

Provides 911 emergency medical service to Austin/Travis County area.

Winter Weather Responsibilities

- Response to 911 calls; assessment, care, and transportation of sick/injured
- Preservation of hospital capacity via treat-at-home capabilities
- Management of impacted non-acute medical treatment (e.g. dialysis)
- Harm reduction for unhoused individuals

Winter Weather Impacts:

- Increased call volumes, response times, and cycle times;
- Difficulty moving personnel to/from stations for adequate rest;
- Crew rest facilities are inadequate;
- Extended power outages challenge serviceability (e.g. – radio/stretchers batteries)

Lessons Learned:

- Initial staffing considerations need to take scaling effects into account;
- more gear is personally issued (e.g. – boot traction devices);
- refresher training for rarely used equipment sent earlier (e.g. – ice chains, winch/recovery devices)

What are we doing to reduce risk and mitigate:

- Personally issued boot traction devices; snow chains;
- ATCEMS purchased 6 ambulances with 4 wheel drive capability and will monitor/assess effectiveness during extreme weather conditions.
- Enhanced Operations Support capabilities for distributing large volume equipment

What will we do differently operationally:

- Consider Alpha/Bravo Staffing earlier as the Department Operations Center (DOC) opens.
- Evaluate the feasibility with the city's Emergency Operations Center (EOC) the need to utilize hotel options for public safety personnel to ensure adequate crew rest cycles.



Austin Energy Winter Weather Preparations

Bob Kahn
General Manager



November 2023

© Austin Energy

Austin Energy

Winter Weather Preparation

- Identified critical components and winterized equipment – generation and substation facilities
- Performed and scheduled inspections throughout the winter months
- Conducted winter preparation training for personnel and ensured adequate staffing
- Submitted winter readiness declaration to the Public Utility Commission and ERCOT
- Expanded incident management team and implemented best practices from peer utility visits
- Enhanced real-time outage map to increase data timeout limit and traffic volume capacity
- Conducted annual and pre-weather-event site visits to review personalized emergency plans and emergency contact information with customers on the medically vulnerable registry
- Providing winter weather resources to customers to help them get ready and stay ready
- Perform ongoing system maintenance, upgrades and tree trimming focusing on underperforming and high wildfire risk circuits



Overview



Austin Energy Winter Preparation Activities



- Identify transmission and generation facility winter weather critical components
- Complete and maintain winter weather preparation measures
- Calculate minimum operational temperature capabilities for substation and power plant facilities and provide to Electric Reliability Council of Texas (ERCOT) and Public Utility Commission of Texas

Austin Energy Winter Preparation Activities

- Insulate weather exposed critical components
- Review emergency staffing plans and past lessons learned
- Activate winter weatherization activities
- Conduct winter preparation training for personnel
- Provide Winter Weather Readiness Attestation to ERCOT and Public Utility Commission by 12/1
- Participate in ERCOT winter weatherization inspections as requested



Enhanced Emergency Management



Austin Energy Emergency Management

Expanded the Emergency Management Team

- Hired a Director of Emergency Management
- Increased team from 1 FTE to 3 total FTEs, reporting to the new Director

Completed benchmarking visits with peer utilities in extreme weather areas

- Southern California Edison (wildfires)
- Jacksonville Electric Authority (hurricanes)
- Long Island Power Authority (cold weather/tropical cyclones)

Revamping Incident Response

- Aligning resources within Incident Management Team
- Reviewing processes and systems
- Increasing contracting within mutual aid and contracted support resources

After-Action Report

- Final report published in early October
- Working towards completion of identified action items
- Cadence established for quarterly updates of progress



Substation Weatherization Preparation



Winter Preparedness Measures

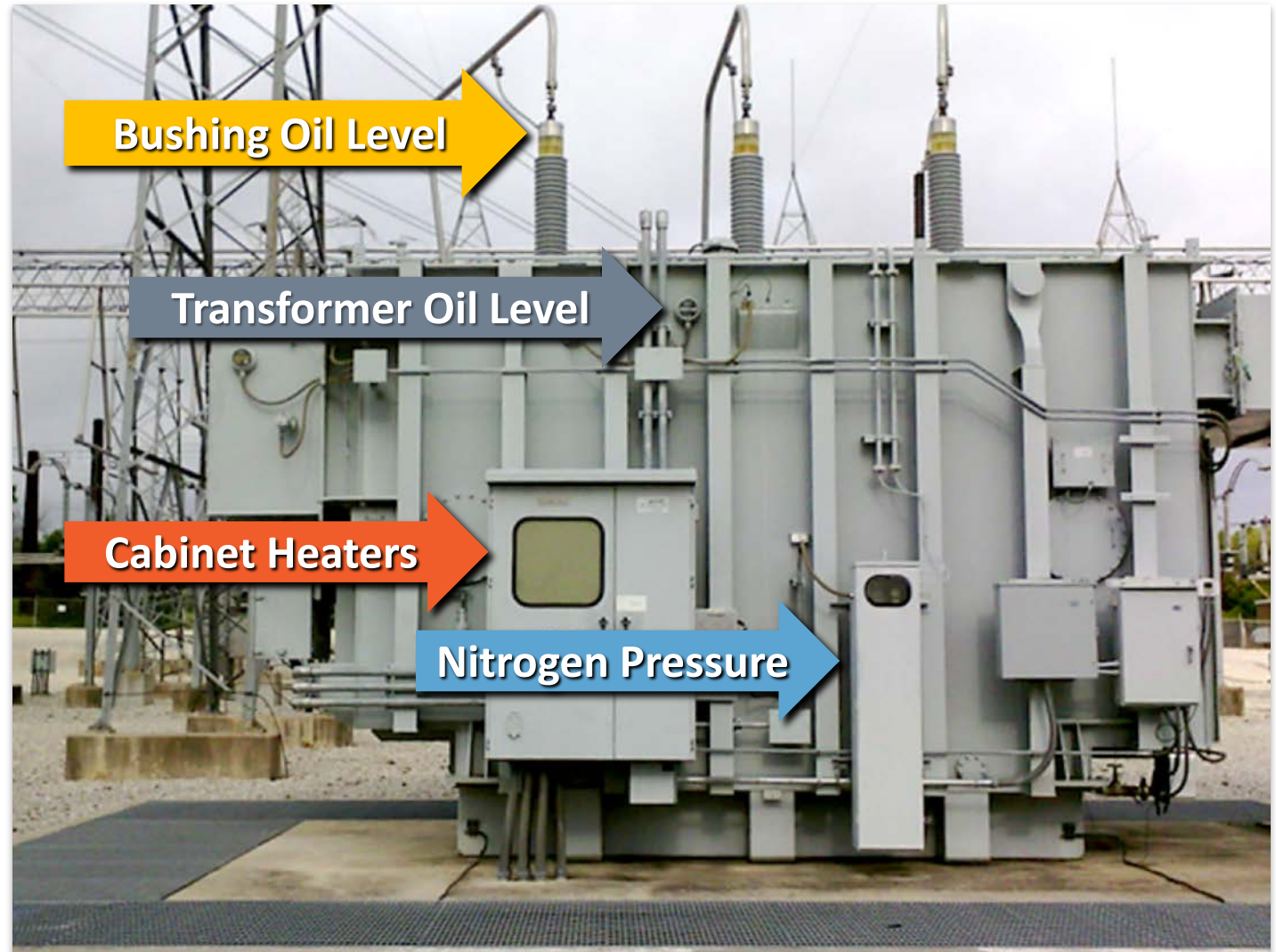
Monthly Station Inspections

- Verify operation of Cabinet Heaters
- Check SF6 circuit breaker insulating gas levels are within appropriate range
- Check Transformer nitrogen barrier gas levels are within appropriate range
- Check Main Tank oil levels are good
- Check Bushing levels are good
- Verify operation of Heating Ventilation and Air Conditioning system

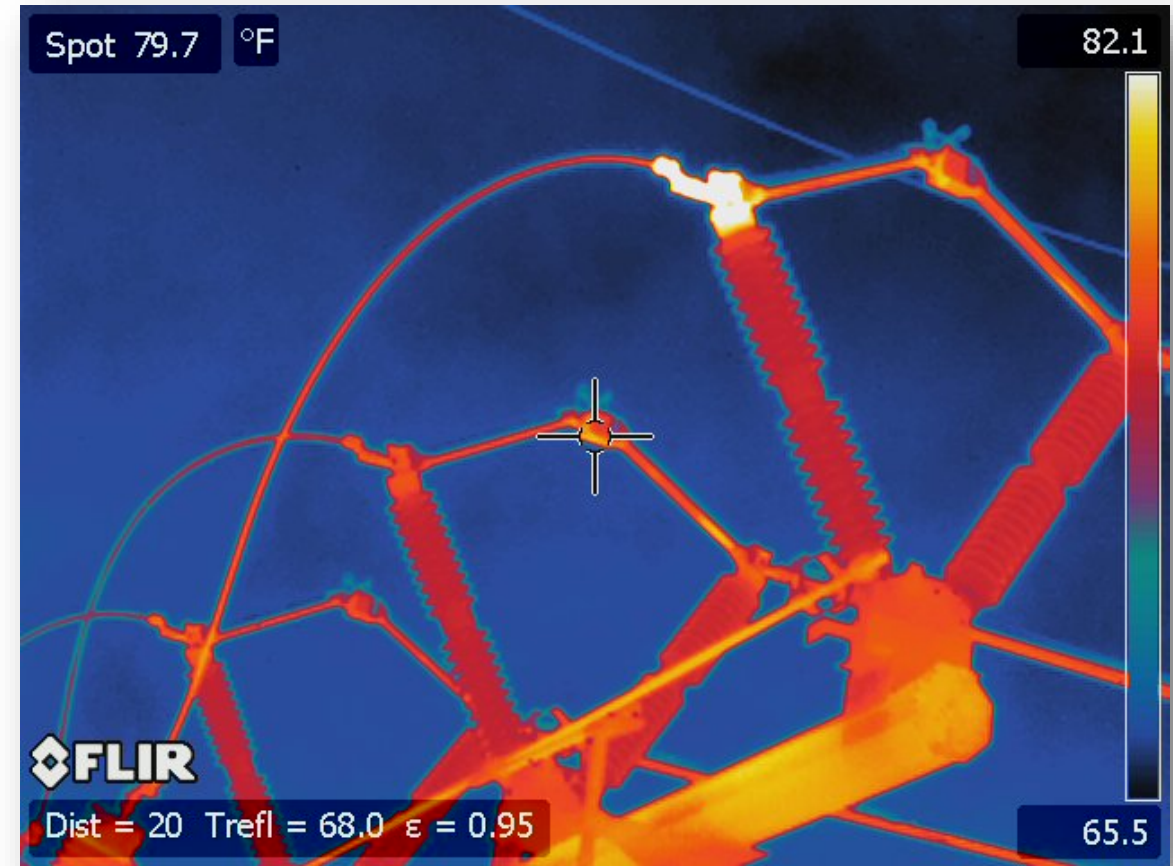
Oil Sample Testing

Adequate Staffing Levels

Winter Weather Preparation Training



Monthly and quarterly inspections focus on weather critical components. With proper weatherization, inspections and testing of components, Substation personnel keep the lights on and Austin Energy in compliance.



Using thermography during Station Inspections allows Austin Energy to identify key transmission facilities needing repair or upgrade prior to a Weather Emergency. This minimizes impacts to the Bulk Electric System and supports the grid as a whole. This thermographic image identifies a hot spot on a switch.

Generation Weatherization Preparation



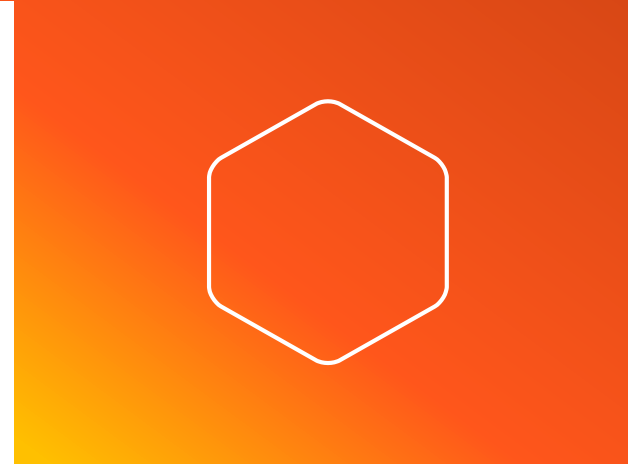
Sand Hill and Decker Winter Preparation Checklists

- Perform boiler and instrument air maintenance
- Perform electric heater, heat trace and dewpoint monitor maintenance
- Perform tarping/insulating of critical instrumentation and equipment
- Procure inventory/fuel as needed
- Conduct winter preparation training for plant personnel
- Install heat trace systems at power plants



Sand Hill and Decker Winter Preparation Checklists

- Insulate weather exposed critical components and add supplemental heating
- Inventory list added for ease of reordering supplies
- Satellite phone check with Real Time Desk and yearly battery replacement
- Winter weather preparation training
- Add additional areas for freeze protection as needed



Winter Weather Preparation for Employees



Precautions and Protections for Employees

- Stay hydrated with fresh water on hand
- Inventory cold weather gear for service
Coats, overalls, gloves, sock caps, hoodies & hand warmers
- Service portable heaters
- Take breaks in heated space
Designated vehicle or substation house
- Partner with Austin Energy Safety
Workshops on tire chain (cable) installation
- Partner with Austin Energy Fleet Services
Prepare vehicles for cold weather
- Safety briefings prior to work
Weather exposure, wind during cold weather days, prevent frostbite and hypothermia, dress in layers



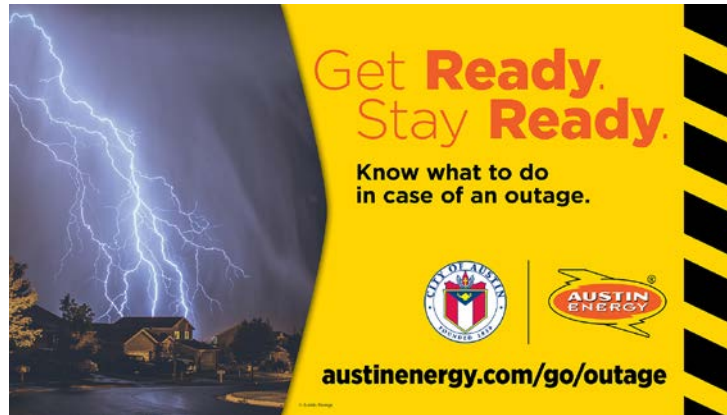
Winter Weather Preparation with Customers



Winter Weather Preparation with Customers



Key Accounts



Preparedness Campaign



Medically Vulnerable



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Austin Water

Winter Weather Preparation

Shay Ralls Roalson, P.E., Director | November 2023



Austin Water

Winter Weather Preparation

- Hardened equipment and facilities + fleet preparation
- Enhanced facility power resiliency
- Staged personnel supplies
- Expanded incident management team with extreme weather activation thresholds
- Provided winter weather toolkits and tips to customers
- Prepared emergency communications
- Real-time outage map in place year-round
- Water distribution plans in place



Winter Preparations Overview

Winter Preparation Activities

- ◆ Extreme weather activation thresholds set for the Incident Management Team
- ◆ Facility winterization check lists and continuity of operations (COOP) posted and accessible in VEOCI (Virtual Emergency Operations Center)
- ◆ Beginning each October, AW reviews winter SOPs, schedules preparatory work, and purchases necessary supplies and equipment



Operational Readiness

- 💧 Water treatment plants maintain a baseline capacity of 235 MGD for operational and system readiness
- 💧 Equipment, materials, and people staged ahead of incoming weather
- 💧 Generators are in place at critical facilities, with emergency backup generator contracts that can be called in immediately when needed
- 💧 Plans, supplies and equipment are in place for community-wide potable water distribution



Emergency Supplies

♦ Hub Warehouse Equipped for Incidents and Emergencies

- Shelter in place supplies for staff: cots, blankets, meals ready to eat, bottled water, and hygiene kits
- Emergency water distribution supplies for customers: bottled water, water totes, fire hydrant adaptors

♦ Two Potable Water Trucks

♦ Bottled Water Contracts Ready

- Local vendor with supply on hand
- Second vendor for multiple truck load shipments



Enhanced Emergency Management

Emergency Management

- Coordination and use of VEOCI system for all routine and emergency communication year-round
- Completed multiple emergency tabletop exercises in partnership with other City departments and agencies
- Conducting monthly emergency notification, life safety plan, shelter in place and/or emergency evacuation drills throughout our system
- Added an Emergency Plans Officer Senior focused on community resilience



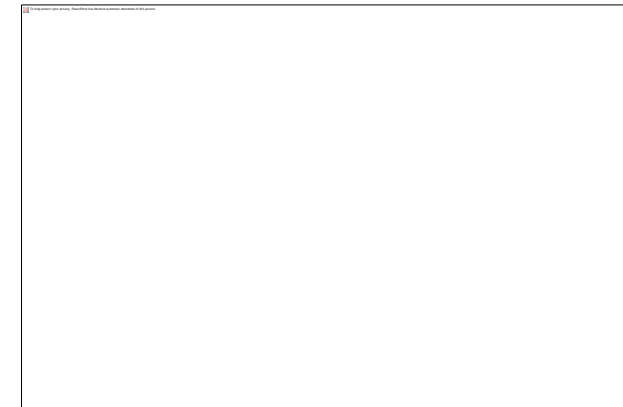
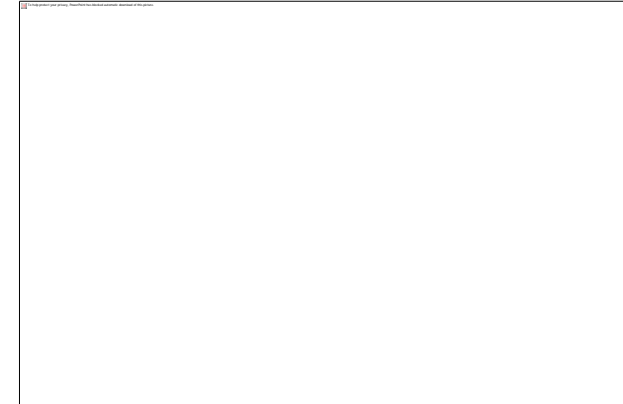
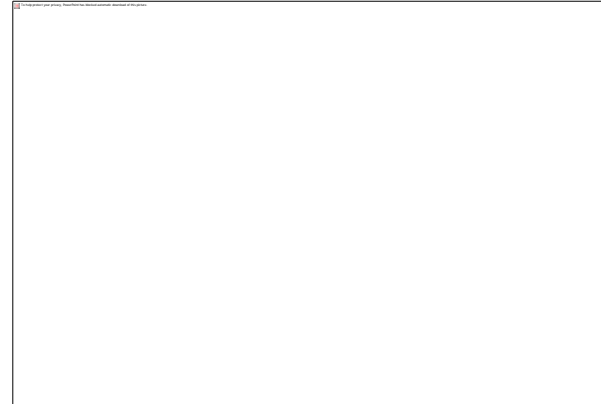
Incident Management Team

💧 Incident Management Team

- Three rotating shifts
- 34 positions
- 154 named and trained staff
- Clearly defined roles
- Enhanced communications roles

💧 Incident Command System Training

- Online and in-person training
- Role specific
- Hosting and instructing FEMA ICS-300 (Intermediate ICS for Expanding Incidents) classes in February, April, and July



Facility Winterization Preparation



Facility Winterization Preparation

Water Treatment Plants

- 💧 Insulation of weather exposed critical components
- 💧 Installing heaters in sludge hopper facilities
- 💧 Winterization of copper sulfate system at Davis WTP
- 💧 Developed cold weather strategy for solids management



Facility Winterization Preparation

Distribution System Pressure Points

- 💧 Pressure points provide operational data for the water system
- 💧 AW has been moving these points underground
 - 50% are completed
 - Remaining to arrive and be installed in December
- 💧 Pressure points that can not be buried are either insulated or have heaters installed



Facility Winterization Preparation



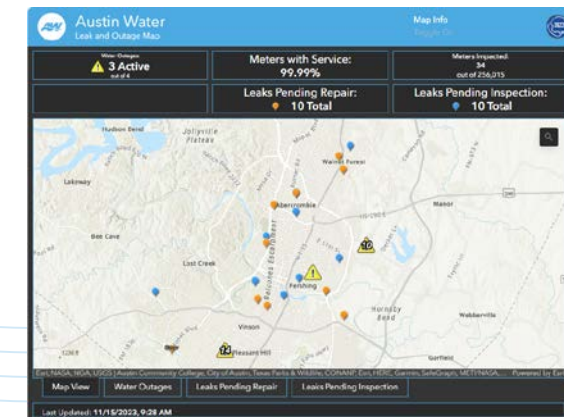
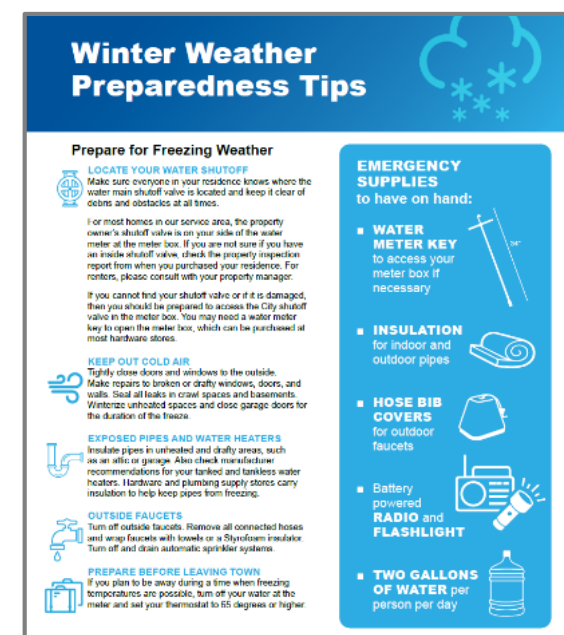
Pump & Lift Stations

- ◆ Davis Lane Pump Station: large rental generator in place December through March
- ◆ 15 Docking Stations purchased for expedited generator hook up at additional pump & lift stations
- ◆ 3 portable generators purchased for lift stations to add to the current fleet of 77 fixed and portable generators to maintain the wastewater collection system
- ◆ Citywide rental generator contract to be used as a supplement when needed

Communications and Community Winter Weather Preparation

Communications

- Enhanced Winter Weather Preparedness messaging
 - locating your water shutoff
 - weatherizing your home and pipes
 - properly dripping home faucets to prevent freezing
 - staying informed
- Tips are translated into 11 languages and include written and video instructions: [AW Cold Weather Tips](#)
- Real-time outage map (always active): [AW Leak & Outage Map](#)
- Distributing toolkits and information at AW and Citywide preparedness events
- Continued customer communication through My ATX Water portal
- Outreach plan for multi-family properties in place
- Coordination with 3-1-1 and COA Utilities



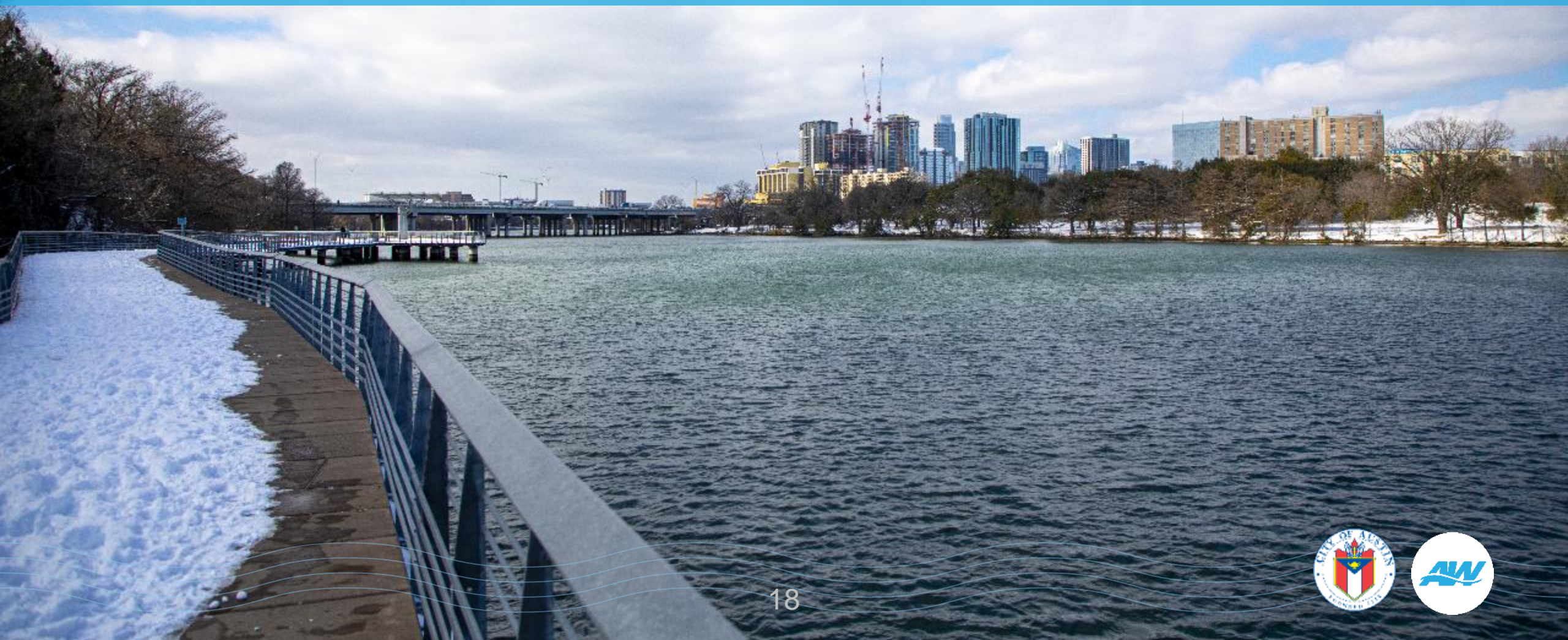
Winter Weather Preparation for Employees

Winter Winterization Preparation for Employees

- Cold weather training and safety briefings
- Provide coats, gloves, head cover, and other durable clothing
- Warming stations
- Weather forecast monitoring (VEOCI)
- Supplies for driving on ice (chains for tires and spikes for boots)
- Shelter and bottled water supplies at plants for staff



AUSTIN WATER
austinwater.org
512-972-1000





Transportation and Public Works

Winter Weather Preparations

November 2023



TRANSPORTATION
PUBLIC WORKS

Transportation and Public Works

Winter Weather Preparation

- Multi-day staff training exercises on equipment use and processes
- Prioritizing roadways and critical infrastructure to increase access
- Ability to apply anti-/de-icing materials and clear snow for 400 lane-miles in 24 hours
- For snow depth less than 3" and more than 13" snow clearing will not occur except for emergency spot locations
- AE added the Mobility Management Center (where signals are managed) on a critical load circuit to increase resilience
- Ability to manage 75 dark signals with generators and stop signs

Winter Weather – Responsibilities



- Anti-icing and de-icing roadways/bridges (ice management)
- Snow clearance
- Debris removal from roadway
- Install portable generators or temporary stop signs at higher risk dark signals
- Confirm school zone beacons are operating
- Communicate emergency messages, coordinated with the EOC, through 12 electronic message boards
- Coordinate with other departments (ABIA snow removal) and agencies
- Support other community needs (water distribution, shelters...)

Winter Weather – Preparations

- Ice + Snow Management

- Developed TPW Winter Weather Response Plan
- Reprioritizing Roadways and Facilities
 - ~200 miles of arterial roadways
 - 140+ priority bridges
 - Austin Water sites – treatment plants, lift stations, pump stations
 - Austin Energy sites – generation plants, substations
 - Primary Trauma Hospitals
 - AFD/EMS/APD – high call volume stations, headquarters
 - Shelters, warming centers
- Purchased additional equipment to spread anti-/de-icing materials
- Pursuing rental contract for two additional snow clearance vehicles (graders), anticipate delivery on Dec. 1st

- Debris Removal

- Coordinate with other departments
- TPW Rapid Response Teams
- Contracts for downed tree removal

Winter Weather – Preparations

• Dark Signals

- Prioritized signals based on various safety criteria
- Developing Dark Signal SOP
- 25 generators - anticipated delivery 11/17/23
- 200 stop signs - purchased and available
- Field training
- AE added the Mobility Management Center (where signals are managed) on a critical load circuit to increase resilience

• Training

- Attaching traction devices to vehicles
- 100+ staff trained over 12 hours on key tasks and expectations, examples
 - Chainsaw safety
 - Installing spreaders
 - Loading materials
- Conducting tabletop exercises in mid-Nov. and mid-Dec.
- 20+ staff trained on Incident Command System (ICS) Framework

Winter Weather – Expectations

- Ice + Snow

- Infrastructure

- 8,000 lane-miles of roadway
(3 times the distance between LA and New York City)

- Expectations

- Two staff units: (1) **planned** roadways + facilities, (2) **reactive** to requests
 - **Anti-/De-Icing**: can treat 400 lane-miles in 24 hours; focus on 140+ priority bridges and elevated structures
 - **Dolomite for Traction Control**: can treat 400 lane-miles in 24 hours
 - **Snow Clearance**: can clear 400 lane-miles in 24 hours
 - Focus on arterials and access to critical facilities
 - Snow will be moved to the side of the lane (not removed)
 - **For snow depth less than 3" and more than 12" snow clearing will not occur** except for emergency spot locations
 - **Expectations will change** based on storm severity, freeze-thaw cycles, equipment reliability, etc.



Grader



Front-end Loader

Winter Weather – Expectations

- Dark Signals – Generators

- Infrastructure: ~1,100 signals (~500 dark during Mara), battery backup systems on ~600 signals to provide 6-8 hours of signal time during initial power outages
- **Current capacity - Can setup generators to power up to 25 dark signals**
- **Why not more generators?**
 - We have a **small # of specialized staff** to disconnect power, disconnect battery backup, wire generator to cabinet source block, secure generator to cabinet
 - Staff needed for **relocating generators** as power returns or higher priority signal goes dark
 - Staff needed to track and manage **refueling**
 - Same specialized staff needed for **other issues** (e.g., signal knockdowns)
- **Exploring potential to utilize signal technician contractors through a current contract for availability during emergency events.** We could increase generator capacity if staffing is feasible.
- **Using generators is a new practice.** As we gain more experience, our capability will adjust.

Winter Weather – Expectations

- Dark Signals – Temporary Stop Signs
 - **Current Capacity - Can setup stop signs for up to 50 dark signals**
 - Investigating additional support from other departments and will add more capacity as staffing resources are confirmed.
 - **Why not more stop signs?**
 - 75 locations (25 generators, 50 stop sign setups) will **stretch capabilities** to manage **as power is lost and returns with unknown timeframes**
 - **Intermittent power** leads to increased frequency of relocating equipment
 - **Distance to cover** across the City (~300 sq. miles)
 - **Deploying generators + stop signs is a new practice.** As we gain more experience, our capability may adjust.



Transportation and Public Works

Winter Weather Preparations

November 2023



TRANSPORTATION
PUBLIC WORKS