



WINTER STORM 2011

DEBRIEFING OF
EMERGENCY MANAGEMENT,
COMMUNICATIONS, AND
CITY DEPARTMENT OPERATIONS

WINTER STORM 2011

PURPOSE

The purpose of the following report is to document the feedback received regarding the activation of the Emergency Operations Center, City operations, and communication processes during the 2011 Winter Storm. Input was solicited and received from various agencies including television, print and radio outlets, and City departments that responded to the EOC during the emergency event. The input includes feedback of areas that worked well and will continue to utilize for future events, as well as constructive criticism that will help us improve the system and better prepare for future emergency situations.

EMERGENCY WEATHER EVENT

- Major concern was the cold and its effect on our citizens and the roadways
 - Lows in upper single digits with highs in the lower 20's, wind-chill being much colder, possibly dipping below 0 degrees F
 - High winds were expected of 30-40 MPH causing a concern on the Westside
 - Snow possibility in region of 1-3 inches with more possible in Northeast portion of town
 - Weather reports were sent to "Weather Awareness" email distribution list as they came into OEM.
 - Biggest concern at beginning was the homeless population as they might seek refuge in vacant buildings. Instructed first responders; i.e. EPFD and EPPD to seek these individuals out and provide them information on local shelters
 - Advised available shelters – Opportunity Center, Salvation Army and Rescue Mission
 - Gave signs and symptoms of hypothermia and appropriate actions to look for on homeless and first responders
-

ELECTRIC UTILITY

Operations

- All local generation plants but one went down due primarily instrumentation freezing and a cascading event of freeze offs following the instrumentation freezes
- The continuation of rolling blackouts for 1.5 to 2 hours without a true definition of where and when areas would be hit

- Lack of completely updated list of “Critical Facilities” that should not lose power (note: it is understood that this list, when revised, needs to be quite condensed and only those locations that are truly “Critical Facilities”)
- Critical locations need to work with El Paso Electric and determine exactly which grid number of the system they are actually on (this was a problem at one health care facility) as well as backup power capabilities
- El Paso Electric lost a HVDC terminal importing power from Artesia but was brought back on line within hours
- El Paso Electric arrived at the EOC early in its activation; this was important in our efforts to get real time information from the company

Communications/Media Feedback

- Outlets received conflicting information from the various EP Electric representatives at EOC or offsite
- Media would have liked tour of Newman Plant earlier (although EP Electric was trying to restore service and could not intermix media for safety reasons)
- Media felt the notice about the electrical issues were too “last minute” (issue was reported early Wednesday morning)
- El Paso Electric needed to share all information, even if it was bad
- El Paso Electric needed a Spanish speaker to conduct media interviews

WATER UTILITY

Operations

- Water shortages reported city-wide due to freezing with resulting burst pipes on private properties, resulting in over 43,000 calls over six days, of which 90% were on private property. These issues inundated the 911 communications center.
- Loss of water pressure at University Medical Center and fire hydrants in certain areas placed a strain on resources
- Late notification to OEM of possible issues with water supply system. EPWU was in constant communication with the City Manager, Mayor, County Judge and other major stakeholders once the urgency of the situation became apparent.
- Lack of presence at EOC made it difficult to obtain quick and accurate information
- Lack of plan on getting potable water to areas without water for extended time
- Utilized tankers on stand-by for utilization at healthcare facilities if necessary; (note: could not be used for firefighting due to limited abilities of tankers)

Communications/Media Feedback

- EPWU and Public Health could have had better coordination on water emergency; boil notice and safety of water statements to public went out too late and statements were unclear. (EPWU coordinated with Texas Commission on Environmental Quality upon issue of the boil water advisory and did so continuously, sent out press releases and provided updates online and through recorded phone messages).

- Media perceived EPWU PIO difficult to reach and obtain clear guidance on water emergency. (EPWU issued many news releases and held press conferences, and referred media and citizens to the EPWU and Red Cross website for information in English and Spanish)
- Media felt EPWU could have provided guidance on how to handle private property water lines and what they were doing to alleviate the issues. Although tips and information was provided on website and via Red Cross, citizens did not solely rely on these sources. There could be improvements to the general guidance and communications going forward.
- Media would have wanted more Spanish interviews aside from the ones EPWU provided, however, there is room for improvement to provide more.

GAS UTILITY

Operations

- Loss of service due to low pressure in areas across mainly in Westside, Mission Valley and Northeast
- Mesa Hills/Festival with a total of 1000-1200 residential units
- Mission valley affecting The Kennedy Complex with multiple units compromised
- Two CNG Tankers called from Arizona for stand-by
- Gas utility Representative in the EOC early in incident proved to be invaluable

Communications/Media Feedback

- Did not know there was a PIO in El Paso-website only has an out-of-town point of contact
- Hard to get in touch with; had to call PIO in Dallas and they were not even aware of any issues in El Paso
- Did not put out enough information; no press releases, needed to be more proactive

SCHOOL DISTRICTS

Operations

- Some felt they should have received information directly from the City/OEM instead of one chosen school district. (The method utilized was very efficient, just need to understand the political issues as well and address them prior to any events in the future)
- Schools were very responsive to the request for closures and they all acted in unison which was a very strong voice to the community

Communications/Media Feedback

- There is a need to coordinate closures with public, private and parochial schools

- All media inundated with school updates from individual schools rather than ISDs or Region 19 – too much to keep up with
- Not enough information from Fabens and Tornillo

TRANSPORTATION

Operations

- EPPD, EPSO, OEM and TXDOT staff and Trans Vista monitored road conditions
- Trans Mountain was closed at 2145 hours and Scenic Drive was closed at 2155 hours
- Road conditions around city were icy. TXDOT maintenance crews treated I-10 and arterial roads. EPDOT and County Roads & Bridges worked in conjunction with TXDOT to keep other important roadways cleared.
- Overall, road conditions were kept open and useable for both citizens as well as emergency responders; good working cooperation between TXDOT, EPDOT, County Roads & Bridges
- The utilization of Sun Metro to facilitate the movement of citizens to the shelter worked very well. Their presence in the EOC assisted tremendously to get this plan working quickly

Communications/Media Feedback

- Need clarification on street closures – who is closing, TXDOT or City?
- More updates would be helpful
- TXDOT too slow with information

HOSPITALS

Operations

- Hospitals communicated well with Medical Operations of the EOC
- TXDOT and EPDOT cleared hospital entrances to allow patient transport to facilities
- Issues of parking lots for employees were not cleared and useable; need plan to determine who should clear
- UMC lost water pressure and had to implement their internal plan and brought in portable toilets, tanker of potable water, shuttled buckets of water to the upper floors, etc. They had a plan and it worked well. Problem was lack of good, solid information to the facility itself on issues
- Eastside hospital had issues with power coming on, then going off, and not knowing exactly which grid they were on. Hospital is served by two “blocks”; one was curtailed and one was not. Good suggestion after event is for hospitals to go to generator power only during event to avoid the continuous problems of the generators starting and stopping constantly and the effect it had on their systems.

Communications/Media Feedback

- Issues of too many “Agencies” calling them and asking for information. This needs to be limited to the Medical Operations Center within the EOC handling all information in and out of healthcare facilities

MILITARY

Communications/Media Feedback

- White Sands needs to share closure updates
- Fort Bliss and Beaumont were very good about sharing information

CITY DEPARTMENTS

Operations

- Icy roads and streets were cleared swiftly
- Development Services and Fire Department provided many residents with assistance to shut-off their main water line
- Building Maintenance worked quickly to repair facility damages
- Department of Transportation ensured they were well stocked on supplies and equipment prior to storm event
- Department of Transportation had pre-established employee relief teams to provide for continuous 24 hour service
- Parks Department rescheduled events and provided refunds to public
- Essential personnel reported for duty and worked through the event to care for facilities and animals at the Zoo
- Star on the Mountain remained lit for some time after electric emergency began
- Some garbage trucks had frozen fuel line causing recycle bins to be skipped, making many residents unhappy
- Identifying City/County special needs population was difficult since the data obtained from El Paso Electric was dated and inaccurate
- Rolling blackouts caused equipment issues at Zoo and dangerous situation for the animals

Communications/Media Feedback

- Department of Transportation, since November, had prepared for emergency events and established a communications system with TXDOT
- Employees utilized various means of communication – cell phone, email, website, social media, etc to stay informed
- Usage of Reverse Notification to get message out had some issues due to various reasons; i.e. infrastructure does not support large amounts of phone calls going to certain areas, there was not “one button” to notify entire community, server located at an out-of-town location failed causing the message to be terminated and resent

FEEDBACK

Positive

- The use of the WebEOC provided participation and monitoring of incident by outside agencies
- Having the El Paso Electric Company and Texas Gas Representatives in the EOC was instrumental in obtaining information (note: even though there was some discrepancies in some of their information, it was much better than using a phone to try to elicit information from their organizations)
- Dissemination of weather information prior to the actual event assisted in agencies to prepare
- Partial EOC activation (at the TXDOT Trans-Vista site) assisted in having an idea of the weather and situation it was bringing early on
- TXDOTs early activation as well as EPDOT and County Roads and Bridges helped keep the roadways usable
- Utilization of the Joint Information Center (JIC) at the EOC assisted in one message being delivered and all agreeing on message prior to going on camera
- Reverse Notification system utilized to inform public of boil water alerts and to conserve water (note: there were some technical issues on the usage to try to notify the entire County at one time; working with vendor to mitigate as many of those issues as possible)
- El Paso Electric notification to OEM of electrical issues
- Combined design to close schools, governments, etc early on
- Response by majority of agencies and jurisdictions to the EOC
- Shelter activation was timely and ready for usage early; great support by volunteer and CERT Team
- Coordination with Emergency Service Districts
- 911 Communications handled large volume of emergency/non-emergency calls in a professional manner
- All departments worked outside normal scope of duties
- Transportation issues were planned for and solved by Sun Metro
- Food and drink support provided to EOC by Salvation Army
- City/County PIO and staff were very helpful and did well; all PIOs in EOC were organized
- Good use of social media
- Press conferences were helpful and provided good information
- Having City/County leadership present at press conferences was beneficial

Areas of Concern/Need Improvement

- Public Health needs to be available for questions. The way to solve this is to ensure Public Health is present at EOC whenever it is activated in response to an issue that may present public health concerns and work within the Medical Operations Center area.
- 211 needs to be utilized for our citizens. The wait for over 30 minutes for persons to get information is unacceptable. Need to have a backup location for them to set up and a plan in place on how they will respond to that location with proper equipment, etc.
- Need to ensure we have full participation within the EOC of agencies, utilities, departments

- Need to ensure agencies reporting to EOC are trained in NIMS 700, 800, 100 and 200, WebEOC and attend the Senior Officials Workshop
- EOC needs better means of identifying persons that are working inside the center so everyone is easily recognizable
- Information coming from all utilities needed to be vetted and verified prior to passing on; there were not a lot of issues in this area, but some
- Should EOC have been activated sooner? OEM Manager opinion is that it should have been activated as soon as it was known about El Paso Electric's two generation plants going down
- Need an early update from OEM as they are opening EOC (can be basic)
- Notification of event to citizens; both prior to event and during
- Notification of EOC participants needs improvement including operations, WebEOC, ICS, etc.
- Interconnectivity of outside agencies to their networks from EOC
- Activation of 211 system for local citizens
- Lack of response to EOC by some agencies
- Redundancy of EOC technology
- CAD and City network down due to EPPD and City Hall experiencing water line ruptures; pagers down as well
- All City and County Departments need to have a "Response Plan" for incidents that could affect their operations; once they have this plan they will need to train and exercise said plans
- Many seemed to be on a different page and not prepared for the issues
- There needs to be City run hotlines to ensure calls are handled correctly
- Better use of the EP Alert System (call-back system); should have been used to inform on rolling blackouts
- Need more assistance for elderly/handicapped
- When media gets calls from citizens with "real" needs, where should they be directed for help?
- Need more Spanish speaking individuals to do interviews
- Media needs to highlight critical messages first before reporting school closures
- Several incorrect media stories after storm (please fact check)
- All three utilities (electric, water, gas) need to share more information, more updates
- When you don't have an answer don't say, "We don't know"
- Utilities need to get out in front of the issue-be proactive
- Utilities did not appear to be used to handling crisis communications, as evidenced in this event and the subsequent feedback

SUGGESTIONS

- All responsible agencies, departments and jurisdictions need to respond to the EOC in a timely manner
- Consider making the EOC more regional in approach with better coordination with neighboring communities if the event is wide spread
- Develop a better methodology of "Call Out" procedures to the EOC; utilize the Smart Message system and have a backup method in case the primary system fails

- Training of individuals that report and function within the EOC needs to take place; when the training is brought in, EVERYONE that needs to participate in the training MUST attend the training!
- Departments of all jurisdictions need to have a department plan for emergencies and someone responsible to ensure that it is followed
- Continuity of Operations Plan (COOP) planning must be undertaken and a finalized plan submitted and approved by City Management for City Council and by County Commissioners for County
- Exercise the activation of the EOC to ensure those that respond understand their role and what is expected
- Provide constant short updates between press conferences
- Video access of EOC – possibly pool video
- Address the issue of poor signal reception to “go live” at EOC building
- Provide more “preparedness” stories and tips ahead of time
- Possibly open EOC earlier
- Have a clearing house for all agency press releases – like City and EPWU press releases are currently available online
- Call media back to ensure they received press release updates

CORRECTIVE ACTION / IMPROVEMENT PLAN

- OEM will assist City departments and the public with developing a greater emphasis for preparedness on emergencies and natural disasters
- All City departments will develop a Continuity of Operations Plan (COOP) with the assistance from the OEM
- The OEM will develop a system for identifying which departments need to be a part of the EOC during emergencies and provide guidance and training for the designated individuals
- The City will work to identify critical infrastructure and needed redundancies
- The City will examine ways to have a better method for recovery with a greater focus on redundancy and utilization of resources and a heightened level of responsibility
- The City will better identify at risk populations and maintain the information appropriately
- Reverse Notification enhanced:
 - Can hit one button and call all enrolled
 - Broken down by zip codes
 - Working with vendor to provide solutions to infrastructure limitations within developed areas
 - Working with IT to develop new call out procedures for Department Heads
- Updating list of Critical Facilities to be placed on electric priority service list
- Working with IT to add redundancy to the EOC
- Schedule disaster drills and exercised and ensure they are attended by the appropriate staff
- Work to develop alternate means of public notification (social media, etc)
- Work with school districts and/or Region 19 to develop a method to make a “one call” notification for all school districts
- Follow-up with all departments to ensure they are working on the issues they had during the event

- Work closely with our media partners and volunteer agencies to get the message out that the private citizens of our community must be able to fend for themselves for a period of time during any type of event
- City PIOs will be organized in a different manner to address the following issues:
 - Handle media hotline
 - Share constant updates via web and social media
 - Clearing house for all agency press releases
 - Coordinate press conferences
- City 15 staff will assist in addressing signal issue at EOC and pool video of EOC ops
- Coordinate emergency management process training for all agency PIOs
- Coordinate with PIOs to do additional advance stories and share tips
- Coordinate with OEM staff to do early briefing with media as emergency begins
- Coordinate with OEM staff to work with schools to address closure issues
- Coordinate with El Paso Association of Radio Stations (EARS) to assist in sharing information
- Coordinate with OEM on El Paso Emergency Alert System to:
 - Increase subscribers to the program
 - Created a protocol to deploy the messages in a more efficient manner
- Television media are also coordinating with radio stations to carry audio-should electricity go out
- Each department will establish a hotline for employees to call into during emergencies and receive instructions based on their department needs
- Each department will develop an “Inclement Weather/Emergency Protocol” and Standard Operating Procedures including mandating employees maintain their current contact information in the employee directory and implementing phone trees to reach out to the employees
- The City will establish preparedness guidelines for departments and employees
- The City will implement an “Employee Emergency Recall Policy” for cancellation of approved leave if necessary
- City Management will make every effort to make decisions by 5:00 am in order to provide early response to the community and City employees. Essential City Departments will be prepared to respond to the needs of the EOC depending on this decision.

CONCLUSION

The City and County of El Paso have an Emergency Operations Plan that addresses most events we may encounter and the plan was followed for the most part during this event. The event which we experienced was, for the most part, rapid in its onset and severe in its impact. The largest issues we encountered were the impact of lack of utilities to our critical infrastructure and the cascading effects it had. The fact that the main concern from the beginning was the areas homeless population along with the roadway conditions showed that the main concern was for life safety, as it should be. The response by the first responders of the region was professional.

City departments were well prepared and responded accordingly to the emergency situation. There were departments that were tasked with duties outside their normal scope of work and

they handled it beyond expectations. The majority of departments called upon were able to rise to the task at hand and provide services when requested.

The Public Information Office did a good job of communicating the public although the amount of information may have caused some confusion. For the most part, City employees were well informed via several mediums, including the television media, online and through social networking.

There is room for improvement and we must use this incident to prepare for future issues our community may encounter; to do this we must have 100% buy-in from all elected officials, department heads, media, volunteer agencies, industry and citizens. We must have all stakeholders participate in all necessary training, exercises and real life events; if we do not do this, we will have the same issues arise in the future as we did in this event.

One must remember that a community and a government cannot be 100% prepared for all events one may face. That is why it is imperative that the citizens of a community do all they can to prepare for emergencies to meet the needs of themselves and their families. We need to do all we can to ensure that neighbors check upon other neighbors. This "Preparedness Planning" needs to be a cornerstone of our preparation efforts and continually addressed.

This process that was taken to obtain and collect feedback from the various agencies and stakeholders was important. Although not all positive, the feedback received will be helpful in addressing shortcomings in the system and in shaping the reforms that will help us be better prepared for the next emergency event.



City of El Paso

Winter Storm 2011 After-Action Report

Office of Emergency Management,
Communications and City Department Operations





Purpose

- Assessment of response to Storm 2011
- Reinforce actions and procedures followed by City and impacted agencies
- Identify effectiveness and areas to improve



Winter Storm 2011

- February 1-3, 2011
- Local heavy snowfall on night of February 1 and into afternoon of February 2
- Followed by several days of sub-freezing temperatures
- Temperatures in El Paso rose no higher than upper 10s (F) on February 2nd and 3rd



Emergency Event

- Prolonged cold weather caused widespread failures of infrastructure
- El Paso Electric had eight (8) primary power generators fail due to freezing conditions
- Energy brought into area; rolling blackouts implemented during peak electric use hours to protect integrity of electrical system
- Water and Gas utilities suffered from broken pipes on private property and mains with water leaks flooding many homes
- Water shortage as failed pumps caused reservoirs to quickly dry up



Activation of EOC

- Partial activation at TXDOT Trans Vista site to monitor and respond to road conditions Tuesday evening
- Major concerns
 - Cold and its effect on citizens and roadways
 - Disruption of traffic flow
 - Homeless population seeking refuge in vacant buildings
(first responders and shelters put on alert)
- EOC and Emergency Plan activated upon learning issues went beyond traffic



Assessment

- City debriefed with three (3) groups
 - EOC agencies
 - Media
 - City departments
- Determine areas worked well and didn't work well
- Identify and implement action items for improvement



Worked Well

- Most major stakeholders responded to EOC promptly and assisted with coordination of efforts
- Roads kept clear by TXDOT, EPDOT and County Roads
- Public safety was not compromised
- 911 Communications handled a large volume of emergency/non-emergency call volume
- Hospitals coordinated well with Medial Operations at EOC
 - Entrances kept open by road crews
- Water tankers on-standby at healthcare facilities (not for fire suppression)



Worked Well

- Cooperation by employers, schools, governments to close and stay closed during emergency
- Shelter activation and assistance from Sun Metro and volunteers
- EPFD and Development Services provided assistance to residents to shut-off main water lines



Worked Well

- Good communication with Ft. Bliss and Beaumont
- Utilization of Joint Information Center provided consistent and coordinated message to public
- Information wide spread to public, businesses and employees via media, email, social media, website, etc.
- Reverse 911 system for water emergency/boil alert



Areas of Concern

- El Paso Electric list of “Critical Facilities”
- Eastside hospital lost/gained power repeatedly throughout event (served by two “blocks”; one was curtailed, one was not)
- Water shortage impact for hospitals and fire suppression
- UMC lost water pressure, had to bring in portable units
- EPWU and Public Health could have better coordinated on water safety boil notice
- City network down due to flooding at City Hall, causing CAD system to go down, 911 operated manually for short period



Areas of Concern

- Citizens inundated 911 call center needing help with shutting off main water line
- Messages from utilities conflicting and not coordinated
 - Needed timely and accurate info even if it was negative
- Media inundated with individual school closings (rather than district wide notices) and critical information left to last
- Emergency Alert System not utilized early on
- Reverse 911 system went down then had to reset, sending some messages at 2:00 am
- Difficulty identifying City/County's special needs population



Preparedness

- Given El Paso's location and rare history of emergency events, community needs greater effort for preparedness
- Greater focus on redundancy of systems
- Utilization of resources during emergency conditions
- Heightened level of responsibility from entire organization



Action Items for Improved Preparedness

- Establish preparedness guidelines for public and organization
 - Tips for homeowners
 - “Shelter in Place”
- Identify critical infrastructure and needed redundancies
 - Backup at EOC
 - Datacenters
- Develop Departmental Standard Operating Procedures for Extreme Weather Events (some already have)
- Formulate Continuity of Operations Plans at organizational and departmental levels



Action Items for Improved Preparedness

- Provide training to agencies and individuals reporting to EOC
- Continually update available equipment and human resources available during an event of community wide impact
- Establish City wide policy for emergency recall of employees and cancellation of approved leave
- Better identify and maintain information of at risk population
- Reverse 911 System enhanced
- Enhance communications processes – website updates, media hotline, social media



Conclusion

- City and County of El Paso have Emergency Operations Plan that was followed during this event
- Critical issues were impact of frozen and broken private property pipes in addition to failing utilities
- Overall organization responded very well and life safety remained priority
- Action taking place to address areas for improvement



Questions / Comments





2011 February Weather Event: Technical Assessment & Report



April 26, 2011



Background

- February 2-February 7, 2011- El Paso community experienced service interruptions due to severe weather
- Electricity supply to the City provided by El Paso Electric (EPE), an Investor Owned Utility
- El Paso Water Utility (EPWU), a municipal utility, supplies water and wastewater treatment services to the City of El Paso
- Event and subsequent loss of power and water service prompted City of El Paso, EPE & EPWU to evaluate overall system efficacy during extreme weather conditions
 - Water supply/waste water service
 - Electric generation, transmission and distribution



Study Objective

- Technical assessment and report of the impacts of the February 2011 emergency weather event
 - Causes and risks associated with service interruptions
 - Provide a framework to guide the two utilities to identify and implement processes and procedures
 - Minimize and/or avoid impacts from similar weather events



Approach

- Study to be performed by COEP and consultant
 - COEP is the contract administrator
 - COEP provides oversight of study progress & deliverables
- Technical Oversight
 - City Engineer (lead)
 - Expert Project Manager
 - Representation from each utility
- Ongoing coordination with EPWU & EPE
 - Study funded by both utilities (50/50 cost split)



Scope of Work

- Two step approach to meet study objective:
 - Facts surrounding the event
 - Causes of service interruptions
 - Laying foundation for solution identification and implementation
- **Step I: Event Assessment**
- **Step II: Detailed Mitigation Action Definition and Risk Based Prioritization**



Step I: Event Assessment

Assessment of EPE and EPWU systems and development of possible alternative solutions

Objectives include:

- Written description of February weather event in historical and statistical context
- Analysis of response of both utilities
- Event and current conditions and practices
- Survey of reliability practices and related costs of water and wastewater utilities and electric supply rate programs



Step I: Event Assessment

- Identification of potential for/expected impact of future extreme weather events
- Development of functional level mitigation and contingency measures for both EPE and EPWU
 - Individual and together
 - Includes alternative supply, increased redundancy and joint planning and communication processes
- Developed working with both EPE and EPWU



Step II: Mitigation Plan & Risk Prioritization

Detailed development and prioritization of recommended actions in Phase I

- Deliverables consist of:
 - Draft and Final Economic and Risk Analysis
 - Results Workshop
 - Draft and Final Prioritization Plan Report and Presentation



Recommended Consultant

- Black & Veatch is a leading global engineering, consulting and construction company
 - Specialize in infrastructure development in energy, water, telecommunications, management consulting, federal and environmental markets
 - Relative project experience includes:
 - » **Orange County Sanitation District**
 - » **Greater Cincinnati Water Works (GCWW) and the Milwaukee Water Works**
 - » **Dallas Water Utility**
 - » **San Francisco Public Utilities Commission**
 - » **Colorado Springs Utilities**
 - » **Big Rivers Electric Corporation, Kentucky**



Next Steps

- Request City Council contract authorization
 - Next 30 days
- Perform Technical Study & Assessment
- Report findings to City Council



Comments/Questions