



To: Mayor and Council Members
From: Marc A. Ott, City Manager
Date: April 11, 2014
Subject: HSEM Halloween Flood After Action Report

Enclosed is the final copy of the Austin/Travis County Halloween Flood After Action Report (AAR). This AAR was produced as a result of the heavy rain and flooding that occurred October 31, 2013. As you know, this was a record event exceeding the flooding that occurred in Austin in 1921.

This AAR was compiled by the Office of Homeland Security and Emergency Management (HSEM) and the Travis County Office of Emergency Management (TCOEM). Thirty-one City departments, along with 10 County agencies and four regional stakeholders conducted an internal AAR examining their individual department's response to this incident. The Deputy City Manager also led a day-long review of the incident that was attended by 92 participants. The information from this day-long review and the reports prepared by the individual departments were used in the preparation of this final document.

While responding to and recovering from any emergency presents challenges, organizations are also afforded the opportunity to take a closer look at their response efforts and identify areas for improvement. Based on all the information received, findings were classified into three broad areas as defined in HSEM internal procedures for producing an AAR. Those categories are "worked well," "needs improvement," and "did not work." Out of the 277 total findings contained in this report, 106 worked well, 123 need improvement and only 48 items (approximately 20% of the entire findings) did not work.

The Halloween Flood highlighted a variety of successes and opportunities for improvement. Highlights from the report include:

- Responder agencies reacted quickly to this incident and multiple City departments worked together with almost 400 City employee volunteers to offer high-quality services to affected persons.
- The City will work to improve its ability to provide public education and outreach efforts, as well as timely communication and dissemination of information to the public, especially to the non-English speaking populations.
- Develop plans to utilize the new Regional Notification System for future incidents.
- Review and update all plans, procedures and annexes cited in the report.

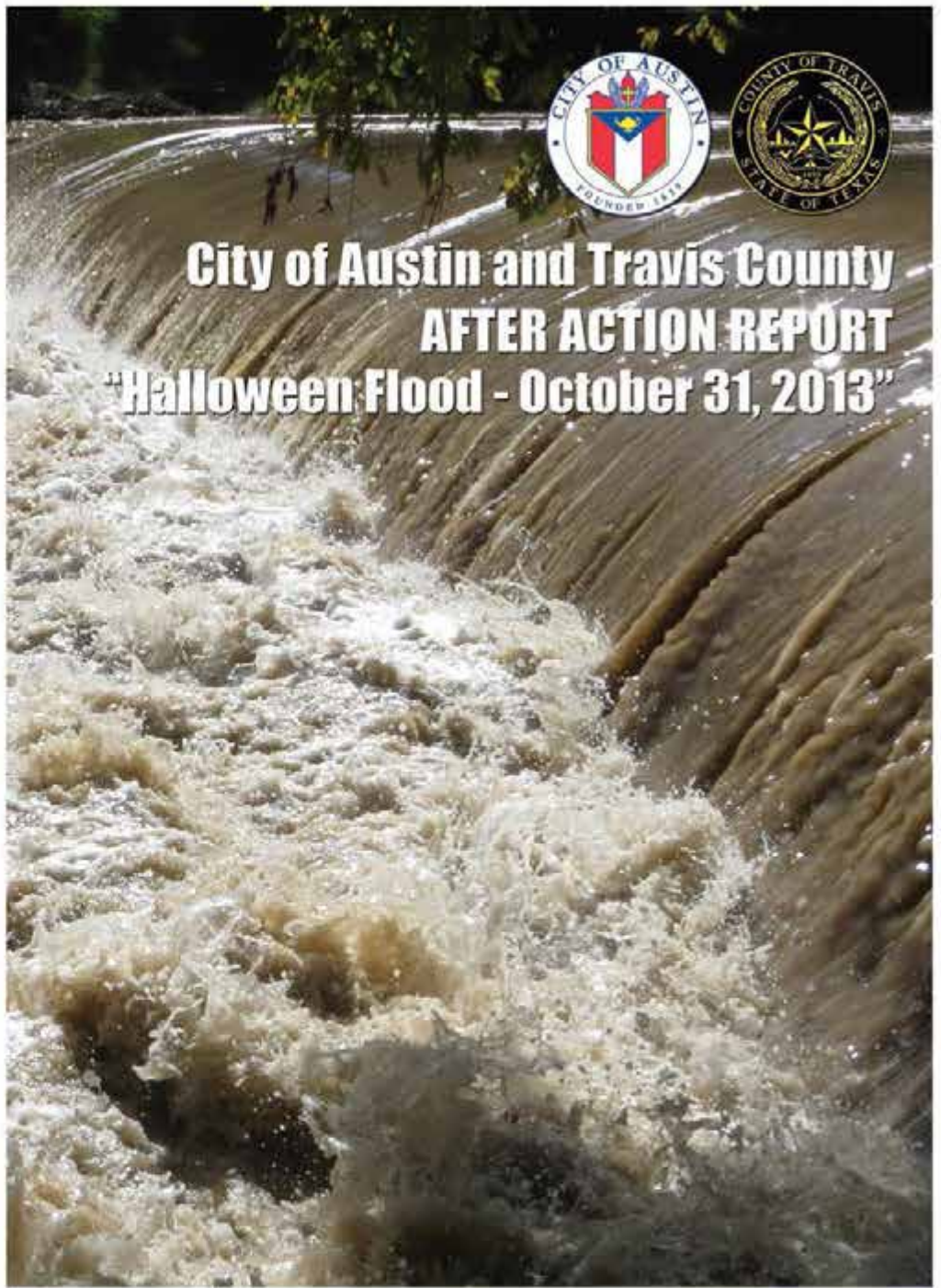
All 171 items identified as opportunities for improvement are included in the Corrective Action Plan (CAP) attached to the AAR as Appendix 1. The items in this CAP have been assigned to the appropriate City departments/County agencies and/or regional stakeholders for appropriate action. HSEM and TCOEM will monitor the actions taken to ensure the items in this CAP are all addressed according to the timeframe identified. We plan to complete the recommended improvements within six months.

I'd like to extend my personal thanks to the hundreds of City/County employees who responded to this event and to you for your policy leadership in this unfortunate incident.

If you have any questions or need any additional information, please let me know.

Thank you.

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List of Agencies Participating in February 24, 2014 After Action Review

City of Austin Agencies	
Animal Services Office (ASO)	Communications & Public Information Office (CPIO)
Austin Community Emergency Response Team (CERT)	Communications and Technology Management (CTM)
Austin Energy (AE)	Controller's Office
Austin Fire Department (AFD)	Economic Development Department (EDD)
Austin Police Department (APD)	Fleet Services Department (FSD)
Austin Public Library (APL)	Homeland Security & Emergency Management (HSEM)
Austin Resource Recovery (ARR)	Human Resources Department (HRD)
Austin Transportation	Law Department
Austin/Travis County Emergency Medical Services (EMS)	Neighborhood Housing & Community Development (NHCD)
Austin/Travis County Health & Human Services Department (A/TCHHSD)	Office of the Medical Director (OMD)
Austin Water Utility (AWU)	Parks and Recreation Department (PARD)
Austin 3-1-1	Planning and Development Review Department (PDRD)
Aviation Department	Public Works Department (PWD)
Building Services Department (BSD)	Purchasing
City Manager's Office (CMO)	Watershed Protection Department (WPD)
Code Compliance Department (CCD)	
Travis County Agencies	
Travis County Constable Precinct Four	Travis County Public Information Office
Travis County Office of Emergency Management (TCOEM)	Travis County Sheriff's Office (TCSO)
Travis County ESD # 2 – Pflugerville	Travis County STAR Flight
Travis County Health & Human Services & Veterans Service (TCHHS/VS)	Travis County Transportation Nature Resources (TNR)
Travis County Medical Examiner's Office (TCMEO)	
Stakeholder Agencies	
American Red Cross	Texas Gas Services
Austin Independent School District (AISD)	Volunteer Organizations Active in Disaster (VOAD)

List of Acronyms & Abbreviations

AAR	After Action Report
ADRN	Austin Disaster Relief Network
AE	Austin Energy
AFD	Austin Fire Department
AHJ	Authority Having Jurisdiction
AHS	Austin Humane Society
AISD	Austin Independent School District
APD	Austin Police Department
APL	Austin Public Library
ARES	Amateur Radio Emergency Services
ARR	Austin Resource Recovery
ART	After Hours Response Team
A/TCHHSD	Austin/Travis County Health & Human Services Department
ATV	All-Terrain Vehicle
AWACS	Austin Warning and Communications System
AWU	Austin Water Utility
BSD	Building Services Department
CAP	Corrective Action Plan
CASH-P	Capital Area Shelter Hub Plan
CASPER	Community Assessment for Public Health Emergency Response
CCD	Code Compliance Department
CERT	Austin Community Emergency Response Team
CIP	Capital Improvement Project
CMO	City Manager's Office
COA	City of Austin
COOP	Continuity of Operations
Corps	Army Corps of Engineers
CPIO	Communications & Public Information Office
CTECC	Combined Transportation, Emergency & Communication Center
CTM	Communications & Technology Management
DOC	Department Operation Center
DSO	Disaster Summary Outline
EDD	Economic Development Department
EMS	Austin/Travis County Emergency Medical Services
ENS	Emergency Notification System
EOC	Emergency Operations Center
ERT	Emergency Response Team
ESF	Emergency Support Function
FAC	Flood Assistance Center
FEWS	Flood Early Warning System
FEMA	Federal Emergency Management Agency
FSD	Fleet Services Department
GIS	Geographic Information System
GO	General Obligation

HMGP	Hazard Mitigation Grant Program
HR	Human Resources
HRD	Human Resources Department
HSEM	Homeland Security & Emergency Management
HVAC	Heating, Ventilation & Air Conditioning
IAP	Incident Action Plan
ICS	Incident Command System
IMT	Incident Management Team
IT	Information Technology
JIC	Joint Information Center
LAC	Local Assistance Center
LCRA	Lower Colorado River Authority
NHCD	Neighborhood Housing & Community Development
NWS	National Weather Service
OMD	Office of the Medical Director
PARD	Parks and Recreation Department
PDA	Preliminary Damage Assessment
PDRD	Planning & Development Review Department
PIO	Public Information Office
PSC	Plans Section Chief
PWD	Public Works Department
Review	After Action Review
SAR	South Austin Regional Wastewater Treatment Plant
SBDP	Small Business Development Program
SHEC	Sand Hill Energy Center
SOG	Standard Operations Guidelines
TCHHS/VS	Travis County Health and Human Services & Veterans Service
TCMEO	Travis County Medical Examiner's Office
TCOEM	Travis County Office of Emergency Management
TCSO	Travis County Sheriff's Office
TDEM	Texas Division of Emergency Management
TNR	Travis County Transportation & Natural Resources
USGS	United States Geological Service
VOAD	Volunteer Organizations Active in Disaster
VMS	Volunteer Management System
WPD	Watershed Protection Department

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1.0 Executive Summary

1.1 Storm Overview

Flooding is the most common hazard for the Austin area. Flooding can occur at any time during the year; however, floods most often occur in the late spring or fall. Flooding is a problem for several reasons, including Austin's proximity to the moisture-laden Gulf atmosphere; its rainfall intensity and duration; its thin, easily saturated soils, and Austin's proximity to the uneven terrain of the Hill Country. Flash floods have been responsible for more deaths in Central Texas than any other hazard.

Due to a dying tropical system from the Pacific Ocean and a merging trough of low pressure, the City of Austin and Travis County experienced flooding during the evening of October 30 and the morning hours of October 31, 2013. The storm started around 2000 hours on Wednesday, October 30, 2013, and ended by approximately noon on Thursday, October 31, 2013. The ground was saturated from storms that had occurred earlier in the month, so the majority of the rainfall became runoff. Figure 1 is a graphic produced by the National Weather Service (NWS) indicating the amount of rainfall from the Halloween Storm in Central Texas. The Watershed Protection Department (WPD) Flood Early Warning System (FEWS) engineers added the watershed boundaries to the map for better clarification of the amount of rainfall in the watersheds.

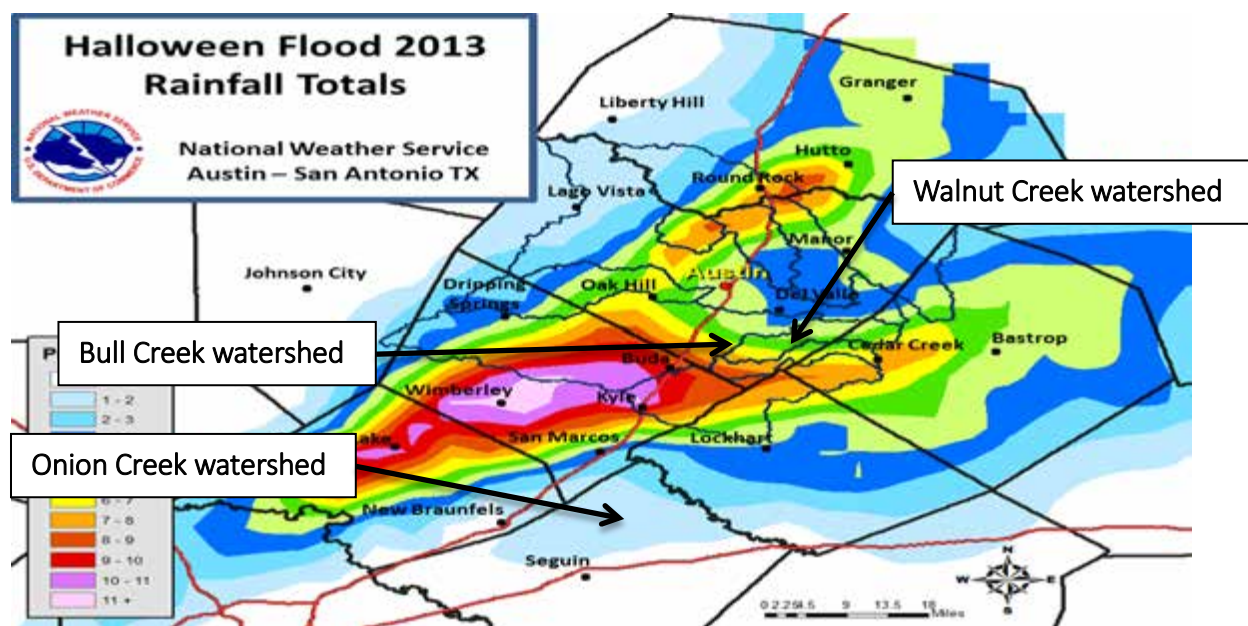


Figure 1 – Graphic produced by the National Weather Service

During the evening hours of October 30 and into the morning hours of October 31, Walnut Creek, Shoal Creek, Williamson Creek, and Bull Creek all flooded out of their banks. However, the most significant flooding occurred along lower Onion Creek in southeast Austin. Flooding in the Onion Creek watershed exceeded the record stage and flow at the United States Geological

Service (USGS) gauge located at U.S. Highway 183 South. The provisional data from the USGS indicated that this gauge peaked at 40.15 feet, which broke the previous record of 38.00 feet from the September 9, 1921, Storm. In Austin/Travis County, there were 745 homes that received some level of flood damage. Of these, 116 were completely destroyed, 441 received major damage, 122 had minor damage and 66 were reported as being affected. In Travis County, four people lost their lives due to this storm.

More than 40 road closures occurred, the first occurring at 2100 hours on October 30, 2013. The first roads started reopening 30 hours later.

1.2 *Emergency Operations Center (EOC) Overview*

The Austin/Travis County EOC (Figure 2) is a specially-equipped facility from which emergency management and government officials provide general guidance and direction, provide emergency information to the public, coordinate state and federal support, and coordinate resource support for emergency operations.

In response to heavy rains falling in the Austin/Travis County vicinity, representatives from the Austin Office of Homeland Security and Emergency Management (HSEM), in addition to the City of Austin Watershed Protection Department (WPD) Flood Early Warning System (FEWS) Engineers (who shifted their operations from One Texas Center), reported to the Austin/Travis County EOC at approximately 0130 Hours on Thursday, October 31, 2013.



Figure 2 – Austin/Travis County Emergency Operations Center

Public Works Department (PWD) Street and Bridge Operations was activated and a representative reported to the EOC at 0230 hours, because WPD needed assistance with road closures. The Austin Fire Department (AFD) moved from their Department Operations Center (DOC) to the EOC at 0530 hours.

Based on continual rainfall and the need for interagency coordination, the EOC was formally activated at 0600 Hours on Thursday, October 31 with the Travis County Office of Emergency Management (TCOEM), Austin Police Department (APD), Austin/Travis County Emergency Medical Services (EMS), Communication & Public Information Office (CPIO), Travis County Sheriff's Office (TCSO), Travis County Transportation and Natural Resources (TNR), Capital Metro and the American Red Cross being paged to join those agencies already in the EOC.

Because the Halloween Floods were multijurisdictional incidents, the EOC was established as a Unified Area Command to oversee the management of the multiple incidents that were each being managed by an Incident Command System (ICS) structure. The EOC Unified Area Command set the overall strategy and priorities, allocated critical resources according to priorities, ensured that incidents were properly managed, and ensured that objectives were met and strategies followed.

At approximately 0700 hours, AFD and HSEM initiated the first Emergency Notification System (ENS) to notify residents in selected flooding areas about hazardous conditions. An additional ENS notification was sent at approximately 0930 hours. Initial response activities included the monitoring of flood gauges and the evacuation of selected residential areas. Based on the need for evacuations, preparations were initiated for sheltering activities.

As the rain began to end and the flood waters receded, focus shifted to conducting a damage assessment of the affected area, debris removal and the restoration of utilities. Multiple City Departments, including Parks and Recreation Department (PARD), WPD, Austin Water Utility (AWU), Austin Resource Recovery (ARR), and PWD along with Travis County TNR were involved in a concentrated effort to remove debris from the affected areas.

On October 31, 2013, a meeting was held in the EOC and the Director of CCD was appointed Recovery Coordinator to oversee short and long-term recovery activities for the City of Austin. CCD was assigned the task of performing damage assessments in the affected areas within the City of Austin. Specific attention was given to the need to provide information to citizens about the status of their residence once it was inspected.

During this meeting the Deputy Director of ARR was assigned the role of Debris Removal Branch Director. APD and TCSO were tasked with providing an increased law enforcement presence in the affected area in order to deter any potential looters.

Additionally, plans were developed to provide for re-entry into the affected area, provide for long-term sheltering needs and open and operate a Flood Assistance Center (FAC) to serve as a 'one-stop shop' for those impacted by the flood.

Two shelters were initially opened on October 31, 2013 for residents impacted by the flooding. One was at a local church and the second was at a City-owned PARD facility. Eventually, the two shelters were consolidated into a single location and the Flood Assistance Center, located at the Dove Springs Recreation Center, provided both sheltering operations as well as assistance services.

EMS community health paramedics began meeting with residents impacted by the flood in the shelters, the neighborhoods, and eventually at the Flood Assistance Center in the following days. The community health paramedics assisted those affected in getting replacement medications, contacting their physicians and arranging clinic visits for several days after the flood.

The Flood Assistance Center was staffed by various government agencies and non-profit service providers, provided social services, and assistance to those impacted by flooding, as well as assisted in the coordination of volunteer efforts.

Extensive resources were committed to the completion of the Preliminary Damage Assessment (PDA). This was done in conjunction with City and County staff as well as representatives from the Texas Division of Emergency Management (TDEM). Staff from the TCOEM worked closely with the State in the development and submission of a Disaster Summary Outline (DSO).

On November 4, 2013, the Mayor of Austin issued a Declaration of Local State of Disaster (Appendix 2) and submitted a letter of request for assistance to the Governor of Texas. Additionally, on November 4, 2013, the Travis County Judge issued a Travis County Flooding Disaster Declaration (Appendix 3) and submitted a letter of request for assistance to the Governor of Texas. Subsequently, the Governor issued a State Disaster Proclamation on December 12, 2013 and submitted a letter to the President of the United States requesting a Presidential Disaster Declaration (Appendix 4) for the State of Texas. On December 20, 2013, a major disaster declaration FEMA-4159-DR (Appendix 6) authorized Public Assistance for Caldwell, Hays, and Travis Counties and Hazard Mitigation statewide.

It is important to note that during the activation of the EOC for this flooding incident, HSEM and TCOEM staff, along with other EOC responders managed the second Formula 1 United States Grand Prix™ with approximately 113,000 attendees and just under 100,000 attendees at Darrell K. Royal-Texas Memorial Stadium for the University of Texas Longhorn vs. Oklahoma State Cowboys football game the weekend of 15-17 November.

The EOC transitioned to regular business hours on Monday, November 18, 2013. Additionally, HSEM continued to conduct daily conference calls with Departments and agencies with representatives at the Flood Assistance Center (FAC) and agencies providing services in the affected area. Based on the decline in requests for assistance, the FAC was formally closed on Wednesday, December 18, 2013 although long-term recovery efforts are still on-going. During this period the EOC produced 29 separate Situation Reports (SitReps) and Incident Action Plans (IAPs) covering approximately 18 operational periods.

The support, time and attention provided by our elected officials and policy makers during this event are greatly appreciated. Their support ranged from quick passage of resolutions that allowed the City/County to seek state and federal assistance, to on-site trips to the impacted areas. They also provided and arranged for tours for residents and helped us share information with people during the event. Their assistance was extremely valuable and the following ways to better interact with them in future events have been identified:

1. Organize a process for meeting and briefing policy makers early in an incident.
2. Provide training to keep policy makers up-to-date on how they can access information and staff operational procedures.
3. Establish and communicate to policy makers clear points of contact for them during an event.

4. Ensure that there are organized plans to guarantee officials and policy makers have access to impacted sites.
5. Develop a process for ensuring policy makers have current and consistent information to share with the community.

2.0 After Action Report (AAR) Development

2.1 *Methodology*

The Halloween Flood was a significant incident, which impacted not only City and County residents but also City and County operations. Following any event it is a prudent practice to conduct an After Action Review (Review). Due to the size of this incident, conducting this City/County-wide Review was a sizable undertaking. In preparation of the City/County-wide Review, each department/agency that participated in the Halloween Flood was required to conduct an internal review and specifically analyze how their department/agency responded to the incident. Austin HSEM and TCOEM, conducted a review of the operations of the Austin/Travis County EOC and that Review will be attached to this City/County-wide After Action Report (AAR).

Additionally, on Monday, January 6, 2014, HSEM provided a copy of a procedure and After Action Report template to each department/agency which outlined a process for conducting and documenting their Review. All departments/agencies were required to provide a copy of their internal review to HSEM, no later than Friday, January 31, 2014. Those individual department/agency Reviews have been attached to the City/County-wide AAR.

All of the information collected during these reviews was used to develop this City/County-wide AAR for the Halloween Flood incident.

In preparation for the City/County-wide Review, HSEM collected the results of each individual department/agency's review and developed the City/County-wide focus areas. The focus areas were discussed during the City/County-wide meeting that was held on Monday, February 24, 2014 from 9 a.m. to 4 p.m. in the Austin/Travis County Emergency Operations Center located in the Combined Transportation, Emergency & Communications Center (CTECC), at 5010 Old Manor Road.

At the meeting on Monday February 24, 2014, each department/agency was allocated 5 to 15 minutes to present their findings to the larger group. In the interest of time, they were asked to summarize their department/agency findings to the greatest extent possible. They were also asked to spend the majority of the time focusing on those areas with a City/County-wide impact or those areas where issues crossed departmental responsibilities.

There were 92 attendees that participated in the Halloween Flood After Action Review, which included City, County and non-governmental stakeholders.

The following seven (7) City/County Focus Areas emerged from the City/County-wide meeting and will be discussed in Section 3 of this report:

- Notifications
- Communications
- Emergency Operation Center (EOC)
- Flood Assistance Center (FAC)
- Volunteers (Recruitment, Management, and Safety)
- Field Operations (Response, Sheltering, Debris Management, and Recovery)
- Plans and Procedures

3.0 AAR Focus Areas

This section includes the seven (7) focus areas that were identified from the departments/agencies AARs and discussed during the meeting on February 24, 2014. Listed under each focus area are: (1) What worked well, (2) What needs improvement, and (3) What didn't work. From the items that did not work or need improvement, a Corrective Action Plan (CAP) was developed and included as Appendix 1.

It is important to note that in any AAR, findings can occur that may appear to be in conflict. That is, there may be a finding stating that an item 'worked well' and then later on in the report another comment may indicate that the same item either 'needs improvement' or 'didn't work.' This is not uncommon, particularly for an AAR covering an especially large or pro-longed incident. This is especially common in cases similar to this incident where individual departments/agencies conducted an AAR related to their own response to the incident (and found something that worked well) while another department/agency may find that in their particular response a similar item either needs improvement or did not work.

The end result is that items that worked well will be sustained and utilized in future incidents while those items identified as needing improvement or not working will be addressed either by individual departments or City/County-wide, as appropriate.

3.1 Notifications

The main issues raised under the Notifications Focus Area revolved around the need to improve early notification and the call-back process for EOC activations. The City of Austin is part of a region-wide paging system, the Austin Warning and Communications System (AWACS). The AWACS paging system is the primary notification mechanism for EOC activations. All personnel that should be notified for EOC activations must carry a pager and have their pager programed with the appropriate cap codes (EOC Activation Groups 1-4) to be notified when there are EOC activations. More than 10,000 pagers serve the City of Austin, Travis County, The University of Texas, Austin Independent School District (AISD), news media and other regional partners. This system includes a variety of activation codes (cap codes) that allow the City, County, region, and the various departments to simultaneously notify groups of users. The system provides instant notification to individuals and groups, and does not depend on the public switched telephone network or the Internet.

Additionally, this focus area addressed the use of a notification system that can be used to provide information to appropriate groups using systems like e-mail, text messaging, smart phones, etc. The system that will be used to address this issue is a Regional Notification System (RNS).

♦ 3.1.1 What Worked Well

- Austin Police Department's implementation of the Unified Tactical Response Plan, ALPHA/BRAVO staffing, and timely activation of their Department Operations Center (DOC).
- Notice from the City Manager's Office on November 1 alerted the Law Department to the current status of the incident and the extent of damage, and allowed attorneys to anticipate the need for preparation of emergency documents.
- The Purchasing Office, Financial Services Department, maintained office phone lists that were accurate and available when needed.

♦ 3.1.2 What Needs Improvement

- Clarify to all City, County and Regional stakeholders that the AWACS paging system is, and will remain, the primary notification of EOC activations.
- Develop a notification group in FirstCall, the new regional notification system, that can be used to provide City/County management and leadership, elected officials, regional stakeholders, volunteers and responders with updated incident information.
- Travis County Constables should have a representative at the EOC to coordinate response from the 5 offices.
- When EOC activation occurs, the Law Department needs to be included to allow for participation in the Response Phase. With an earlier presence at the EOC the department would have been able to assist other departments in crafting a consistent policy for dissemination to employees in the field.
- Ensure all necessary agencies are included in the appropriate pager groups for EOC activations, i.e. City of Austin Purchasing.

♦ 3.1.3 What Didn't Work

- AISD, CPIO, Law, Animal Services Office, Austin 3-1-1, the Travis County Medical Examiner and Travis County Constables reported they did not receive an EOC activation page.
- AISD was not notified prior to APD helicopters landing on their southeast bus terminal grounds.

3.2 Communications

The Communications Focus Area included issues associated with providing timely and accurate information to the maximum number of citizens enabling them to take appropriate protective actions in order to minimize life and property losses. It includes the processes for the management and release of information to media outlets and the general public.



Figure 3 - Annex B, Communications

In this incident, messaging was handled through a Joint Information Center (JIC) which included Public Information Officers (PIOs) from local government departments, other levels of government, volunteer agencies, and the private sector to help ensure message consistency.

In addition, the goal was to facilitate emergency communications within and among all agencies. All departments are required to maintain their existing equipment and procedures to communicate with their field

operations units. Departments are responsible to address communications issues in Standard Operating Procedures, Standard Operating Guidelines, Departmental Policies, or through other methods as appropriate.

♦ 3.2.1 What Worked Well

- Distributed critical information to residents about resources and services available to them.
- Pushing flood safety awareness and preparedness tips via social media.
- Informational flyers placed on every door in the affected areas worked well. This allowed residents to receive updated information as needed, especially when access to media and technology was limited.
- Staff were able to produce some translated material (specifically flyers) for distribution fairly quickly and on-the-fly.
- In less than a four-hour period, HRD was able to create communications from the City Manager's office and execute a citywide request for volunteers.
- Regional radio system allowed for two-way communications between departments. Radio communications and technology between all responders and command and general staff personnel was reliable, robust and dependable.
- Austin Resource Recovery's communications with vendors to extend working hours.
- FEWS on call staff activated well in advance of the storm the afternoon of October 30th based on weather reports from the NWS.
- Effective coordination between attorneys and personnel from various departments allowed preparation of a fee-waiver ordinance that addressed immediate recovery needs.

- Austin Energy's (AE) Energy Control Center provided great internal communication on outage progress.
 - AE Customer Care was able to staff the Customer Outreach Centers post storm to provide information to affected customers.
 - Austin 3-1-1 experienced double the normal call volume at times and was able to maintain satisfactory call center service levels.
 - Small Business Development Program (SBDP) disseminated information to a diverse geographic population via multiple communication channels, including a newsletter sent out to 18,000 SBDP email contacts and use of social media outlets.
 - SBDP utilized non-traditional means of finding small business owners, i.e. utilizing the registered vendors list housed in Central Purchasing to identify potentially affected businesses. Additionally, SBDP ensured that other City of Austin departments working in the FAC were aware of the services offered.
 - Lessons learned from the Bastrop Area fires resulted in the development of a website, www.austinsmallbiz.com/getbackinbusiness, which now is permanently hosted on the main website with up-to-date information on each of the five topics: Normal Business Operations Pre-Disaster Planning, What to do After a Disaster checklist, List of Co-working Organizations in Austin, Federal and State of Texas Resources, and City of Austin Resources.
 - The Department of Aviation was able to monitor water levels and correctly analyze the impacts to the airport as well as keep certain areas of the campus informed.
 - Travis County Emergency Services began issuing National Weather Service flood watch information via social media (Twitter and Facebook) early on the afternoon of October 30, the day before the flood, reinforcing weather forecast information and relaying it to the media and public. Just after midnight on October 31, Travis County Emergency Services also posted on social media about ongoing STAR Flight flood rescues and sent STAR Flight rescue video to local media the following morning.
- ♦ 3.2.2 What Needs Improvement
- Some stakeholder organizations reported receiving “unclear or misinformed guidance,” “conflicting information,” or “lacked points of contact.”
 - Need the earlier creation, distribution and use of a communications plan, Form ICS 205 for all responder agencies and organizations.
 - Some staff had to use their personal cell phones for response activities and others reported limited cellular coverage in the affected area.
 - Shorter “stubby” antennas on some portable radios encountered limited coverage issues.
 - The City and County need to improve the ability to timely communicate with and disseminate information to the affected public, including information to non-English speaking populations.

- The City and County need to improve the multi-lingual social media outreach this needs to be broadened beyond Spanish. Asian languages will be a key area of need.
- The City needs to develop specific messaging targeting flood related topics including, but not limited to: rebuilding process (demolition, cleaning, permitting requirements) & buyouts.
- The Joint Information Center (JIC) needs to improve their proficiency with EOC related equipment and tools and needs to pre-identify key information that may be needed during an activation including training in ICS.
- Continue to improve public outreach/public education efforts, to include specific education on the response to a large scale incident.
- Implement a community outreach plan to educate the community on public safety action plans at water-related events and provide the public information on actions they can take.
- Community information meetings should be held according to standard operating procedures.
- AE field crews were having issues with piggy backing on other calls. Radio Communications during the incident were having issues with the repeaters.
- The NWS flood stage definitions on their Web site do not reflect current conditions.
- Radio transmissions from the rain gauge network were at times delayed up to an hour, decreasing accuracy of FEWS flood forecast computer models.
- There is a need for a combined Austin/Travis County press release template with a header that includes both Austin and Travis County seals and contact information.
- Any employee, who has contact with the public in person, via the phone or online, should have information to answer frequently-asked questions or at least know to whom the person should be referred.
- The City and County should provide handouts with information needed by residents as soon as it's safe to enter impacted communities.
- Travis County provided recovery information to the public via the county website. The County should ensure that all necessary information is included and updated.
- SBDP did not have a sustainable plan for maintaining the information on the Get Back in Business website, and had to quickly verify and update the referenced links.
- Residents were confused about the types of placards that were placed on their homes and the terms used to determine habitability. They did not know what the placards meant or what it required them to do.
- Many of the street signs washed away which limited directional capability. Another type of signage should have been installed to assist field crews that were unfamiliar with the area.
- Public Information Officers (PIO) and the JIC need greater access to subject matter experts and designated on-camera/on the record representatives for media interviews.

- Work with departments to ensure they have enough trained, fluent Spanish speaking staff onsite.
 - The City and County need to develop a network of grassroots community contacts to help disseminate critical information and collaborate with other community volunteer organizations to ensure consistency for communication to residents.
 - Departmental Human Resource (HR) staff was responsible for coordinating volunteers, but they did not receive the information until after Department Directors were notified. This resulted in segmented communication that created an increased amount of questions and confusion.
 - The Finance Section Chief needs to be provided access to the citywide financial and payroll staff distribution lists to facilitate better communications.
 - Utilize FirstCall to provide the public with emergency information such as evacuations, shelter in place, etc.
 - Consider use of Austin/Travis County Amateur Radio Emergency Services (ARES) for situational awareness.
- ♦ 3.2.3 What Didn't Work
- The early warning system for Onion Creek did not work.
 - Travis County neighborhood of Bluff Springs was not receiving information being disseminated from the FAC due to a lack of County representation at the FAC.
 - FEWS staff did not receive reports of flood-related 911 calls directly and could only rely on reports from their Field Operations staff. Therefore, geographic locations of 911 calls in addition to observations from AFD, EMS, and APD were not known to FEWS during the storm incident.
 - There was not an effective way to communicate directly with residents in the affected areas in English and in Spanish concerning the flood, especially as it relates to providing citizens with an enhanced awareness that conditions were worsening.
 - Effectively promoting the SBDP website was more difficult because information was not up-to-date, physical handouts did not exist, and website URL was confusing to access for end users.
 - The Department of Aviation received very little information on the rising waters from external sources. Most conditions were self-identified by Aviation staff.

3.3 EOC Operations



Figure 4 - Austin/Travis County Emergency Operations Center

The City and County EOC Directors manage EOC resources and operations according to the Austin/Travis County EOC SOG and Position Checklists Plan. They ensure situational awareness for the incident is being conducted. This task involves the collection, evaluation, display, and dissemination of information about the emergency situation to help support the response operations. Information collection sources include, but are not limited to: WebEOC, a web-based software program, used for the purpose of automating the collection, consolidation, and distribution of information related to an incident. WebEOC is also used to provide situational awareness to first responders and EOC representatives.

♦ 3.3.1 What Worked Well

- Use of WebEOC by a majority of department EOC representatives.
- WebEOC has never been used more than with this incident. Strong Planning Section Chief and Leadership embraced the use of WebEOC.
- Timely situation reports were issued.
- Providing maps for agencies to identify the affected areas.
- GIS Emergency Response Team (ERT) was given permissions to the folders on the EOC network so that work could be done remotely.
- Having a GIS team in place and meeting regularly before the incident.
- Assigning a CTM technician to the EOC during initial activation with continued support while activated: This allows EOC staff to concentrate on managing the incident without being distracted by technical issues.
- A regular maintenance schedule to make certain that all of the EOC laptops are updated and working properly.
- HSEM and TCOEM staff performed above and beyond expectations during this incident. Including a limited number of staff members working long hours over an extended period of time.
- CERT volunteers provided much needed assistance, especially in the EOC, during this prolonged incident.

- The use of public safety personnel to staff the EOC during overnight hours was very beneficial.
 - For the first time PDRD was included in EOC operations which allowed greater communications and coordination between departments and the opportunity to build better relationships and understanding of the operations of other departments and their needs.
 - Experienced Public Works Staff responded quickly to the EOC, Street and Bridge field Staff were “called back” to work, and expeditiously positioned barricades at low water crossings and other troublesome areas.
 - The Purchasing Office, Financial Services Department, had staff that was prepared to assume their duties and was able to rapidly respond to logistics needs.
 - CPIO was able to staff both the EOC and FAC, any gaps in staffing were infrequent and generally all shifts were filled.
 - Austin 3-1-1 coordinated the creation of a service request in support of the EOC.
 - The EOC should continue to provide fresh fruit and other healthy snacks during activations.
 - A/TCHHSD staff members provided representation in the EOC, activated their DOC, conducted the CASPER and provided case management to residents impacted by the incident at the FAC.
- ♦ 3.3.2 What Needs Improvement
- The use of WebEOC during this activation by EOC representatives, DOCs, and the FAC should be continued. The areas needing improvement include: CTM support, user proficiency, just-in-time training, and resolution of technical issues related to Logistics and Mission Tasking.
 - Additional CTM staff should be trained to assist with WebEOC (access privileges, log-ins, passwords, troubleshooting, etc.) when HSEM staff is not available.
 - WebEOC accounts should not be created during an EOC activation except for those stakeholders in the EOC itself who need assistance.
 - For events requiring a significant GIS involvement, a GIS supervisor should be appointed and charged with: developing GIS staffing, prioritizing requests and assisting requestors.
 - Need to conduct training for EOC representatives on: GIS resources and capabilities, limitations and processes.
 - Agencies and organizations with representatives in the EOC did not consistently report key operational components of the agency/organization and any anticipated impact from the incident during regular situational briefings or enter the information that was provided into WebEOC.
 - Key metrics must be identified that can be reported and monitored throughout an event.
 - All Emergency Support Function (ESF) 8 responsibilities will be coordinated through the EOC in compliance with Annex H – Health & Medical.

- Case management Strike Teams and the triggers for activation need to be established.
 - EOC representatives must have the authority to make decisions for their agency, staff the work station assigned to their agency and remain at the EOC until relieved or the EOC is demobilized.
 - All computers in the EOC should have the same configuration and increased functionality should be explored.
 - Additional City employees need to be identified to assist in the EOC during prolonged activations.
 - Expand ICS training to non-uniformed staff that may be utilized during a large scale incident. This includes logistics and support staff.
 - The City and County need to develop local Incident Management Teams (IMTs) capable of operating field/remote locations or supporting EOC operations.
 - Some City utility facilities were adversely impacted by the incident.
 - The timing of situational briefings caused conflicts with DOCs and FAC.
 - Travis County Constables were having difficulty communicating with EOC staff.
 - Need to develop a staffing plan for the key positions needed in the EOC when activated.
 - The Logistics Section needs to have a consistent staff to maintain operational awareness. Logistics staff should remain in the EOC up until deactivation for demobilization purposes.
 - The City Corporate Safety representatives should be more closely aligned with HSEM operations and EOC activations.
 - The Finance Section Chief should have been activated earlier.
 - Identify more members to serve on the GIS team to allow for coverage of multiple operational periods.
 - Improve scheduling of GIS personnel to the greatest extent possible.
- ♦ 3.3.3 What Didn't Work
- City utilities were not able to access certain facilities due to denial of access by law enforcement.
 - City utilities were not able to access certain facilities due to limited road access.
 - An air operations branch was not set up in the EOC.
 - Clear tracking of road closures was not available.
 - Technology limitations prevented a field situational awareness.
 - The EOC should have been fully activated sooner for this incident.
 - USGS Stream Level Gauge at Twin Creeks was washed out and USGS Stream Level Gauge at 183 temporarily stopped functioning properly.
 - The FEWS flood forecast models rely on radar-based precipitation estimates from the NWS and gauge-adjusted radar rainfall estimates from a private vendor.
 - The Logistics Section was unable to use WebEOC due to technical issues.

- Too many users were unfamiliar with WebEOC due to a lack of use.
- GIS staff was overwhelmed by the requests for information associated with the damage assessment teams.

3.4 Flood Assistance Center (FAC)



Figure 5, Dove Springs Recreation Center, 5801 Ainez Dr.

This Local Assistance Center (LAC) was activated and named Flood Assistance Center (FAC) for this incident to provide assistance to the affected community. This FAC provided a centralized location for services and programs, disaster information, and resource referrals for unmet needs following this disaster. In addition, sheltering operations were established at the FAC.

♦ 3.4.1 What Worked Well

- The Recreation Center staff provision of overnight shelter management for the Dove Springs Shelter for the duration of the incident.
- Using a facility that had access to the Internet and electric power.
- Having laptops available from an emergency cache and inter-agency assistance with tents, vehicles and staffing.
- Establishing a case management approach to providing services to citizens.
- Red Cross providing meals for citizens and staff at the FAC.
- Establishing a volunteer coordinator to manage/coordinate volunteers from all sources.
- Operating under the Incident Command System for all agencies and non-government organizations.
- PIO's onsite to work with the media.
- Staff from CTM, PARD, Austin/Travis County Health and Human Services (A/TCHHSD) and EMS stepping up quickly and taking on the organization of the FAC and providing needed resources and technology.
- Having knowledgeable staff present during the installation of the Flood Assistance Center was a success.

- Effective community partnerships facilitated in providing critical support services ranging from case management to food assistance, from housing vouchers to bill assistance.
 - Setting up fully functional laptop computers that were fully connected with normal AMANDA System to enable onsite permitting.
 - Having staff on site at Dove Springs and at the EOC with access to senior management of PDRD and Watershed Protection focused attention early on the need of an interim policy to deal with life safety building permits.
 - NHCD through its existing contractual services and business partnerships with nonprofit agencies, to include affordable housing providers, was able to connect residents with services in a relatively short amount of time.
 - Co-locating critical departments at the FAC enhanced coordination which expedited service delivery to residents particularly as it relates to identifying single and multifamily housing.
 - Regional and local response equipment was utilized for temporary command post and resource shelter areas. This included assets from the City of Austin, Travis County Sheriff's Office and the Round Rock Police Department.
 - Issuance and use of radios to communicate at the FAC.
 - Shower Trailer set up and preparation. Building Services Department (BSD) had the shower trailers set up and ready for operation within 12 hours of EOC request to deploy.
 - BSD staff supported the administrative and logistical needs during the hours of Shower Trailer operations. Also the BSD Trades provided on-going checks, services and maintenance to ensure reliability of trailer systems.
 - Community Services staff responded to the FAC to provide case management, which was the most labor intensive service provided by A/TCHHSD. In addition to staff members who normally work as case managers and social workers, other staff members with no case management experience were called in to assist.
 - While the FAC closed on November 15th, as of the date of this report, case management continues to be provided to residents affected by the flood.
- ♦ 3.4.2 What Needs Improvement
- The City needs to improve its ability to rapidly set-up and operate a remote assistance center including: the early identification of the center location, pre-positioned furnishing and equipment, IMT staffing, security, appropriate agency staffing and pro-longed operations.
 - Need pre-identified shelter setup kits with technologies, hardware, tents, tables, office equipment, etc.
 - Need lifecycle replacement of laptops, printers and network equipment that is designated for emergencies. The existing equipment was grant funded and is reaching end of life.
 - Engaging Information Technology (IT) experts to design a database that can be used in future events to track client information.

- Although NHCD can skillfully develop housing options for individuals in search of housing options, staff is not trained in the very specific role as housing navigator. This type of expertise is needed on-site to assist in future disaster response operations.
 - Need support from other City IT departments during major emergencies to provide additional staffing and resources.
 - At sites like the FAC, need to establish an IT lead to report to the Logistics Chief. The IT lead should attend command briefings to better understand needs and set expectations.
 - An awareness of what equipment and supplies might be available from other City departments would reduce the need for emergency “spot” purchases, saving time and money. Items such as printers, network cables and additional laptops
 - A daily Incident Action Plan (IAP) should be implemented on day one.
 - Need to have participating agencies report activity (citizen counts, referrals, permits, etc.) starting from day one.
 - Need to improve the information provided to the EOC about the operations of the FAC and various DOC’s
 - Difficulty of department field FAC representatives having to be physically present in the EOC each morning for briefings and at the same time having operational responsibilities at the FAC that needed attention at the same time.
 - The inconsistent availability of or access to volunteers overworked PARD and other City staff at the FAC.
 - Standardized situational information for each City Department will be identified and reported to: 1) the EOC if activated, or 2) the HSEM Duty Officer if it indicates a potential change to their normal operations.
 - All DOCs, the FAC, etc., must prepare Situation Reports (SitReps). All SitReps must include metrics that are identified at the start of an incident and maintained in each report. The Planning Section should develop from these SitReps, as needed, reports that are maintained with the most updated information.
 - Compile a list of A/TCHHSD staff skills/credentials and create case management strike teams.
- ♦ 3.4.3 What Didn’t Work
- Staff was forced to rely too heavily on personal cell phones for communications.
 - Food arrangements for remote staff were not well thought through, requiring some staff members to have to leave Dove Springs to procure food and return daily.
 - According to NHCD, a significant challenge was the inability of the nonprofits to take on additional cases that required intense case management even if funding could be identified.
 - Inventory Control: There was no initial inventory control when equipment was deployed.

- The Flood Assistance Center and Sheltering Operations should be in separate facilities.
- Signs directing people to specific areas on the FAC complex were either non-existent or non-effective.
- Visual Situational awareness was non-existent. Consider the deployment of remote cameras in the future as technology is refreshed.
- Establish triggers that activate A/TCHHSD Memorandums of Understanding with community partners.
- Develop a single intake process for case management and referrals to social services.

3.5 Volunteers (Recruitment, Management, and Safety)

Departments within the City of Austin (COA) utilize a web-based, online Volunteer Management System (VMS) called Volgistics to recruit, manage, track, and coordinate volunteers who support the departments' activities and efforts.

Volgistics supports the daily operations of City departments as well as the City's response to disasters and emergencies. The system allows administrators to recruit and schedule volunteers and to maintain accurate records of services provided by volunteers. The interactive system also allows volunteers to sign up for tasks and to record the time worked online.



Figure 6 - Volunteer Management Plan

- ♦ 3.5.1 What Worked Well
 - Safety training and equipment provided to all employees at the beginning of each shift.
 - Neon safety vests along with other precautionary and safety equipment (bug spray, sunscreen, water, etc.) was available.
 - Organizers ensured that everyone was well briefed and had the Personal Protective equipment necessary. Safety ranked high on the priority list.
 - Volunteer groups were able to travel into affected areas to provide information, deliver food, dispense water and cleaning supplies, etc.
 - Efficient and cooperative response from departmental staff in coordinating recruitment of volunteers. High response of employees willing to volunteer in bad weather conditions.
 - HRD identified employees with bilingual communication skills and provided orientation to each shift of volunteers consisting of clear directions and duties.
 - Leadership “on the ground” was organized and worked well together, having employees contact information available, supplying maps of affected areas and establishing a staging area at a City park for volunteer coordination and resources.

- Code Compliance staff was available to help determine if areas were safe to enter.
- ♦ 3.5.2 What Needs Improvement
 - The recruitment of volunteers to assist with this response did not fully follow the EOC SOG or make effective use of Volgistics.
 - The management and training of volunteers did not fully follow the City of Austin Volunteer Management SOP.
 - Corporate Safety representatives were not fully utilized with volunteers or field operations.
 - Improve the management of and communications to volunteers assisting with an incident.
 - Improve the training and scheduling of volunteers using Volgistics, the software used by the City for volunteer management.
 - Volunteer coordination: Since many of the organizations providing services at the FAC also had volunteers in the affected area, there should have been a decision earlier in the process to add incident command staff to coordinate all the volunteers.
 - Due to the nature of the emergency and unforeseen needs, volunteers were unaware of the specifics of their assignments prior to the first shift.
 - Providing departments' better notice when seeking volunteers.
 - Utilize volunteer psychologists and/or social workers to be part of the teams going into affected areas.
 - Develop groups of employees within departments that have already agreed to respond to disasters or other serious incidents instead of trying to locate those employees when the need is critical.
 - Providing a tent at the staging location to adequately provide support, equipment and materials.
 - Having a megaphone to facilitate delivery of orientation information to large groups.
 - Too much time was spent mobilizing which impacted actual productive work.
 - Some groups became separated and it was difficult to reconnect. In addition, some teams overlapped in certain areas.
- ♦ 3.5.3 What Didn't Work
 - Contacting non-government organizations such as Volunteer Organizations Active in Disaster (VOAD), the Austin Disaster Relief Network (ADRN), and other national volunteer organizations after they did damage assessment on their own, made it difficult to coordinate volunteer efforts, since many of these organizations covered the same area. Need to make contact with them on day one, before they deploy resources to the affected area.
 - There was only one shift that was requested to assist in moving items and debris from front doors to curbside. Fire and non-sworn employees were not provided masks. This created a safety concern that caused coordinators to end such work immediately.

- Some non-emergency responders were emotionally distraught from the experience.
- It was difficult to hear instructions at initial meeting site.
- Requiring employees to perform labor-related duties without an appropriate assessment of physical conditions.

3.6 Field Operations (Response, Sheltering, Debris Management, Recovery)

The Field Operations focus area encompasses those specific actions related to the sheltering of displaced persons, the management of debris resulting from the incident and the recovery activities associated with the return to normal operations for residents, responder agencies as well as critical infrastructure. Additionally, this focus area includes certain response activities undertaken by certain departments/agencies.



Figure 7 - Debris Removal

- ♦ 3.6.1 What Worked Well
 - Proper and functional rescue equipment for swift water and flood operations.
 - Having proper equipment deployed at the right time and right place, and utilized in an efficient manner.
 - Austin Energy personnel demonstrated great effort and resourcefulness in re-routing electricity from the Bergstrom Substation to restore service to the South Austin Regional Wastewater Treatment Plant (SAR).
 - Public Works Department demonstrated great dedication quickly to make Fallwell Lane safe for vehicular traffic.
 - Attitude of the crews, working in adverse conditions with a solid team approach to accomplish the mission.
 - Departments working together to share equipment and operators. Proper utilization of skill sets of personnel on task assignments.
 - Despite the hazardous conditions and long work hours, AWU personnel worked injury-free throughout the flood response.
 - The rapid relocation of rescue resources by field command staff in response to a rapidly evolving situation.
 - Deployment procedures resulting from continued discussions between public safety agencies within the City and County.

- Animal Services Office field services and shelter staff were available to respond. The Austin Humane Society (AHS) provided a large animal transport vehicle to move animals from the scene to the shelter site at AHS.
- Supplies and protocol for standing up animal shelters at remote human sheltering locations is proven and deployed smoothly. Pet sheltering volunteers are well trained.
- Volunteers at pet shelter location ensured pets were well cared for so victims could focus on recovery. Officers “delivered” pets back to their owners as needed to accommodate for lack of personal transportation of owners.
- APD quickly established a Command Post within a few blocks of the affected area where command staff could deploy visible police patrols and restricted access until the resident re-entry phase began.
- APD negotiated with its contracted towing company to reduce, and in some cases, eliminate the cost of storage fees for vehicle owners.
- The APD two-phase traffic control re-entry plan was created to control pedestrian and vehicular re-entry by residents and representatives into the affected area. Procedures were implemented to check and record identification/credentials of all persons entering the area.
- Fleet Services Department (FSD) expanded operating hours at four different FSD facilities to meet additional service demands.
- FSD dispatched Field Repair Support Teams and mobile fueling assets to respond to support department requests.
- PWD Infrastructure Management Division staff assessed the condition of roads and bridges impacted by the flood to determine their sustainability.
- The berm around Sand Hill Energy Center (SHEC) prevented flooding issues at the Plant itself.
- All AE personnel were able to maintain communication and work safely during the incident.
- Watershed Protection Department FEWS on-call staff activated well in advance of the storm the afternoon of October 30 based on weather reports from the NWS. Up until midnight, the FEWS forecast models worked well.
- Gate arms and warning lights at low water crossings functioned properly.
- Travis County Purchasing Office’s open contract with Grainger allowed Travis County Constables to quickly obtain needed supplies and equipment.
- STAR Flight Aircraft and Equipment worked well. Onsite STAR Flight management provided logistical support to crews and created a beneficial buffer between crews and communications when there were multiple requests to the same locations (Spicewood Springs) or high priority calls.
- CCD’s utilization of all-terrain vehicles (ATV’s) assisting with rescues, navigating the area etc.
- Austin Fire Department’s establishment of Unified Command allowed for multi-agency communication and organization of the incident.
- The AFD Operations Division Chief separated incidents throughout the city of Austin and Travis County Authority Having Jurisdiction (AHJ) into five

major incidents geographically with divisions which made the activities much more manageable.

- Austin 3-1-1 provided bilingual staffing at the FAC.
- Daily teleconference calls were held to assure successful communications and to schedule staffing as needed.
- All units had and utilized swift water personal protective equipment.
- Disease surveillance and infection control conducted at the FAC shelter.
- The ability to provide 313 immunizations quickly, including TDaP, Adult Hepatitis A, and Influenza.
- The ability of the Office of Vital Records to provide 229 free birth certificates.
- Public education materials were readily available in Spanish as well as Spanish-speaking staff.
- The implementation of a CASPER (Community Assessment for Public Health Emergency Response).
- The notification of TNR After Hours Response Teams (ART) crews and the response provided by TNR crews to re-open and repair roadways. TNR had the necessary materials, equipment and human resources to make the roadway repairs in the shortest time possible.

♦ 3.6.2 What Needs Improvement

- Numerous issues with debris removal were identified, including: Better communication (briefing/debriefing) with field crews; issuance of appropriate Personal Protective Equipment; better traffic (vehicle and pedestrian) control; and, assign areas slated for clean-up clearly and ahead of crew deployment.
- Sheltering operations did not fully follow Annex C – Shelter & Mass Care or EOC SOG.
- The City needs to develop a process to provide additional: transportation, fueling operations and qualified drivers during a large scale event.
- A number of difficulties were encountered with the removal of animal carcasses.
- Numerous challenges in the identification and acquisition of alternate housing options for impacted residents were encountered.
- Field operations involving multiple departments or agencies should be better managed and coordinated.
- City Departments serving on the Debris Removal Planning Task Force did not fully implement the operational concepts in Annex X – Debris Removal.
- APD field command post lacked computer access in the early stages of deployment and therefore did not have the ability to monitor, access, or update WebEOC.
- APD air support units unable to assist with rescues or evacuations because they are not equipped for such operations.
- Fleet Services has identified the need to train and license additional HAZMAT qualified drivers from other city departments to assist during emergencies.

- ARR experienced difficulties in maintaining the same level of service in all affected areas, including the ability of private contractors to meet City needs.
 - Keeping spectators and scavengers out of the affected area.
 - Shower operations could be better managed by providing tents, chairs and tables that would allow staff to receive customers, issue supplies and provide seating while in the queue for the showers.
 - Early coordination by FAC with Red Cross to provide shower supplies to the shower operations staff for distribution to people using the shower trailers.
 - CCD Inspectors need equipment to protect themselves from aggressive dogs.
 - The FEWS Onion Creek flood forecast model uses several of the USGS gauges as boundary conditions. For instance, USGS gauges in Williamson Creek, Slaughter Creek, and Onion Creek are all used as inputs into the forecast model for lower Onion Creek.
 - Starting just after midnight on October 31, the FEWS flood forecast mapping computer server stopped functioning properly.
 - Animal Services is not clear on their scope of authority in a first responder situation; better coordination and clearer communication is needed with public safety agencies. Support is needed from APD, specifically in this case by assisting with horse trailers and tack.
 - Choosing Capital Areas Shelter Hub Plan (CASH-P) approved sheltering sites would be better than ad hoc churches and recreation centers. Parker Lane and Dove Springs were not vetted, and not ideal, for pet sheltering.
 - Process for notification of and request for regional and state water rescue assets.
 - Conduct additional joint swift water training.
 - Travis County needs to develop a policy to address private property clean-up and funding should be appropriated to address disaster events.
- ♦ 3.6.3 What Didn't Work
- Fleet Services is not staffed or equipped to provide transportation assets with drivers in these types of incidents. FSD managers were required to act as drivers during this emergency which was an inappropriate application of staff.
 - Alternative methods of accessing Sand Hill and Onion Creek substation need to be reviewed and implemented to increase accessibility options during emergencies.
 - The flooding of Onion Creek took out the Onion Creek electrical substation, cutting off all electrical power to South Austin Regional Wastewater Treatment Plant (SAR).
 - Establish an alternate access roadway into SAR. The flooding and subsequent damage to Fallwell Lane isolated the plant from needed resources.
 - Lack of field facilities for crews. A mobile crew support trailer would have been helpful for field responders to eat, drink water, and charge cell phones.
 - Workers assigned to debris response should receive vaccinations against diseases that they may come into contact with during the response.
 - Household Hazardous Waste was not separated from regular garbage.

- Water rescue 911 calls were not all triaged correctly. Specialized resources (boats and helicopters) were dispatched to calls that were a low priority and would not have warranted a boat or helicopter response.
- The current AMANDA system used by CCD for case management was not designed for emergency response and caused significant case management problems.
- Communication about shelter location transition from Parker Lane to Dove Springs failed. Transition from Parker Lane to Dove Springs was very rough; people and pets arrived at Dove Springs before the animal sheltering area was set up.

3.7 Plans and Procedures



Figure 8 - City of Austin Recovery Plan

The City of Austin Recovery Plan (Annex J) defines responsibilities, establishes a recovery organization, defines lines of communications, and is designed to be part of the City of Austin Emergency Management Program. This plan will be updated with information from this incident, and information obtained from the Federal Emergency Management Agency (FEMA) Austin/Travis County Community Specific Integrated Emergency Management Course conducted in Emmitsburg, Maryland. Additionally, the EOC Standard Operations Guidelines (SOG) Plan will be updated as a result of information obtained from this incident.

♦ 3.7.1 What Worked Well

- NHCD and HHSD implemented a social services/case management response procedure model to address emergency events. The model requires that all intake activity be channeled through the A/TCHHSD case management intake process so that a comprehensive assessment can be administered for each resident.
- Through coordination with 3-1-1, a disaster relief referral process was implemented so that residents in need of social services were directed to the A/TCHHSD case management phone number by calling 3-1-1.
- The Law Department exhibited good working familiarity with the City's Emergency Operations Plan (Basic Plan), specifically the department's

responsibility to carry out enumerated functions; and exhibited good working familiarity with the departmental policies and procedures.

- Having CCD Officers accompany FEMA teams throughout the affected area.

♦ 3.7.2 What Needs Improvement

- All plans, procedures and annexes cited in this AAR or used in this response should be reviewed, revised and updated as appropriate.
- All Departments should submit for legal review their policies and procedures related to long-term recovery issues, prior to dissemination to the public.
- Annex E – Evacuations and Appendix F – Re-entry of Annex J should be revised and updated as needed.
- Departments should review and implement FEMA guidelines and procedures where applicable.
- A policy and process needs to be developed and implemented which establishes a badging system to identify and authorize mission critical responders to enter areas that are restricted but don't pose an immediate danger to life and health.
- Develop and implement a policy and process for use of air resources during EOC activations.
- CCD's damage assessment criteria did not coincide with FEMA's criteria.
- All Departments need to ensure that COOP plans are updated and exercised regularly to ensure that contact information, "go kits", etc. are ready at a moment's notice.
- Update the EOC SOG plan and use it for all EOC activations.
- Update the Recovery plan with information from this incident, and information obtained from the FEMA Austin/Travis County Community Specific Integrated Emergency Management Course conducted in Emmitsburg, Maryland.
- Have a Recovery Coordinator on staff before the FEMA Kickoff Meeting.
- Create a planning group to put together some procedures related to how to trigger a mandatory evacuation as well as re-entry procedures.
- City needs to assess the need for calculating the long-term cost of disasters.
- Develop Timelines/Gantt Charts and additional training for implementing the Disaster Recovery Plan.
- AFD will implement a proactive staffing plan for water related events that would allow AFD to pre-position water resources in opportune areas based on finite metrics provided by weather forecasting, command level experience, and situational awareness of affected communities.

♦ 3.7.3 What Didn't Work

- Need to develop a policy to deal with life safety building permits.
- The Austin Financial Services Department needs to develop a policy to address the reimbursement of departments that serve as Logistics Section Chief in the EOC and use their Procard to make purchases.

- The Austin Financial Services Department needs to identify and assign the appropriate management staff to be trained and serve as Finance Section Chief during EOC activations.
- CCD did not have an emergency response plan to address large scale emergency events that require mass damage assessments.
- There is no plan in place to evacuate or perform search and rescue for horses and other livestock.

4.0 Conclusion and Next Steps

This was a major incident for all responder agencies, many Austin/Travis County residents and the City and County as a whole. Recovery will take years. It has taken a toll on all those impacted.

The Austin/Travis County Health and Human Services Department (A/TCHHSD) was concerned about the potential ongoing public health impact of the flooding. To address that concern, a community assessment was conducted approximately two weeks after the start of the heavy rains/flooding with residents living in the most heavily impacted areas. The objectives of the assessment were to determine current and long-term public health needs, community concerns, and to provide local officials with situational awareness.

To accomplish the assessment objectives, A/TCHHSD utilized a Community Assessment for Public Health Emergency and Response (CASPER) methodology. CASPER is an epidemiologic technique designed to provide household-based information about an affected community's needs after a disaster and with minimal resources. The sample survey is designed to represent a cross-section of the affected community and includes responses from residents who had minor and major damage to their homes. These are door-to-door household surveys. The survey results provide information that is shared with the disaster response and community officials to improve service delivery and response actions.

Several issues were noted as the result of the survey.

- Although the community is well on the way to recovery, individual households and individuals still require assistance for such basic necessities as food and shelter.
- The lack of "official" evacuation notification was a significant issue in the community.
- Several households noted the need for more consistent guidance from the City of Austin regarding permit requirements, as was the need for an explanation of the red and yellow tags placed on damaged houses early in the structural assessment process.
- The safe use of generators and gas/charcoal stoves remains a challenge in every disaster.
- Consistent messaging is vital. The variety of information sources used by residents in the affected area creates a challenge for those providing the information to both coordinate the message(s) and to ensure the correct messages are sent through a variety of methods and reach a dispersed population. Messages must also be provided in multiple languages.

- Based on comments from the survey, there was confusion among some residents as to whether they should have boiled their drinking water after the flood and/or whether an official boil water notice had been issued.
- Using community groups and home owner associations can be an invaluable resource for distributing information and providing insight into the community they serve.
- The interruption of mail service affected the delivery of medication for one household.
- The community was very complimentary of the debris removal services to date. Several households, however, were not sure how long the services would be available and asked for more information.
- The community was also very complimentary of the volunteer response.
- While many of the surveys were completed without requiring language translation, the use of a language translation service via the telephone proved to be a viable resource in the absence of a Spanish-speaking surveyor in this assessment effort.
- Residents noted pets as one of the challenges during evacuation. One resident chose not to evacuate because of pets.

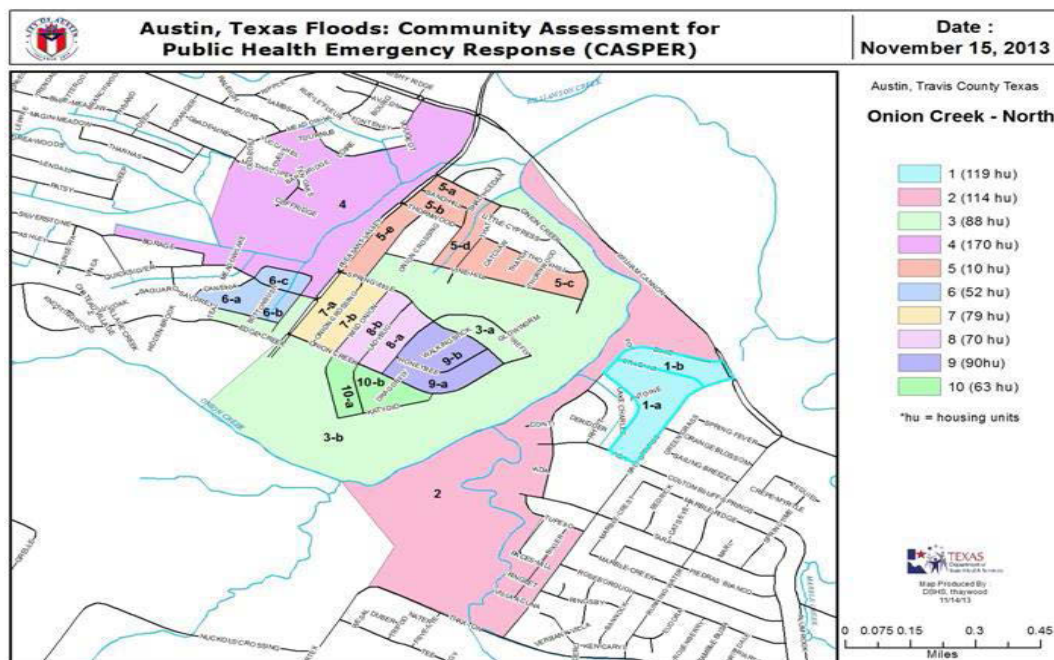


Figure 9, Map of CASPER Survey Area, Onion Creek

Public Health Recommendations

1. The City and County need an effective, urgent, and accurate evacuation notification system for high risk areas, with back-up plans and alternate methods of notification.
2. Consistent and coordinated health and safety messages across government and volunteer organizations.
3. Consistent and sustained communication from the City of Austin regarding debris removal schedules and the permitting process for rebuilding and renovation.

4. Consistent and sustained communication regarding the potential buy-out of homes in the affected area.
5. Increased awareness of the multiple methods currently used to receive medications (mail delivery).
6. Community health assessments should be coordinated through a single ESF- 8 contact. Although the residents appreciated the number of volunteers and contacts that were made over the past two weeks, coordinating community services among agencies and volunteer organizations would maximize limited resources, decrease the likelihood of duplicative efforts, and ensure the broadest range of information would be shared among response groups. This would help focus and prioritize relief efforts. To help coordinate assessments in future disaster response, ESF 8 may consider, in working with agencies and volunteer organizations, developing an inventory of agencies that conducted assessments, the objectives of these assessments, and when those assessments are typically done.
7. Early and sustained engagement with community groups for community needs assessments.
8. Enhanced sharing of GIS information across public health agencies. Work toward shared access of critical information prior to the next disaster.
9. Encourage all households with pets to develop an emergency plan for the pets and include that in their family emergency plan.

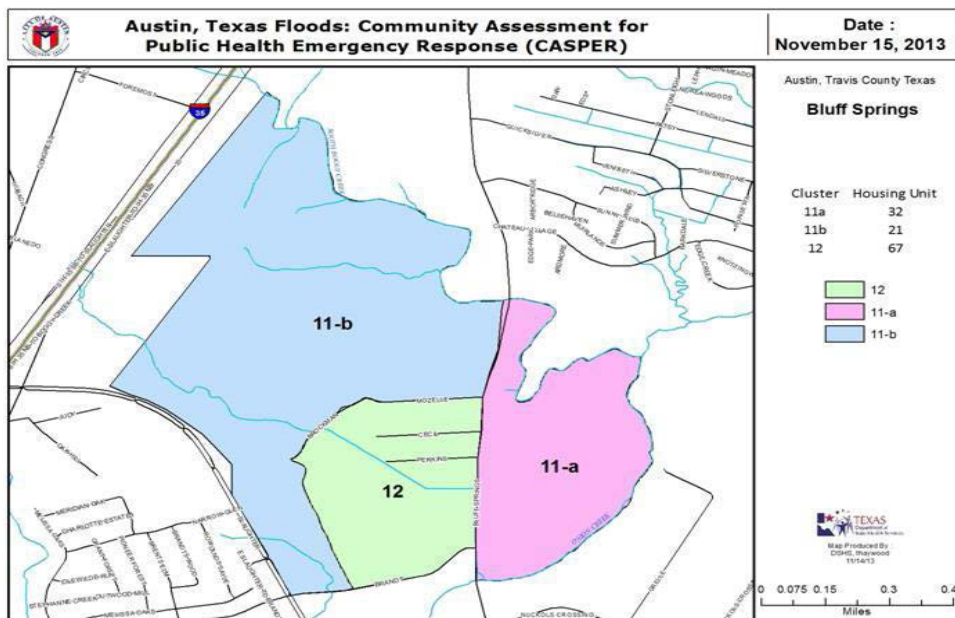


Figure 10, Map of CASPER Survey Area, Bluff Springs

Austin Fire Department's (AFD) analysis of the Halloween Flood identified four areas of service delivery enhancement which are already in the planning, beginning, or implementation stages:

1. Implement a proactive staffing plan for water-related events, including boat resources and location.
2. Implement a community outreach plan to educate the community on AFD action plans at water-related events.
3. Vet information from the Emergency Operations Center and the Department Operations Center prior to dissemination to the field.
4. Implement an area command at large-scale incidents followed by formal notification through the chain of command.



Figure 11, Map of AFD Incident Command along Onion Creek

In response to some of the challenges faced during the Halloween Flood, the Austin Police Department (APD) recently revised its DOC Standard Operating Procedures in order to ensure the following:

- Clear command and control for incidents.
- Enhanced communications technology introduced to allow faster decision making by the Incident Commander.
- Required IAPs for each operational period to ensure objectives meet real-time needs.
- Clear Command staff rotation to ensure a timely response to incidents.

As a result of this incident and others, APD Command Staff and their support officers' use of WebEOC has grown exponentially.

Summary of USGS “hardening” Work

FEWS staff is working with the USGS to “harden” USGS gauges that provide data to the flood warning group. The goal of gauge hardening is to make the gauges more flood resistant so they

continue to operate under more extreme flooding conditions. However, gauges have to monitor water levels and that means that equipment has to be installed at the bottom of the creeks. This makes them susceptible to damage from flood debris and bridge failures even in extreme storm events.

The USGS and City of Austin have a long-term contractual agreement to have the USGS provide full range rating stations (flow and depth monitoring gauges) as well as perform water quality sampling at specified locations within the City. After the Halloween Flood, when the Twin Creeks gauge was damaged and the US 183 gauge stopped reporting, the City entered into a single purchase contract with the USGS to provide “hardening” to four of its gauges. The “hardening” of gauges means the following:

- There will be two types of monitoring equipment installed in the creek. This will include bubbler lines and a pressure transducer (used to determine water depth by measuring pressure). One bubbler line will be down in the channel specifically to measure water depths for low flow situations. A second bubbler line will be up higher and in a more secure location. This line will ensure water depth measurements at high levels even if debris damages the lower bubbler line. A pressure transducer will be installed at the bottom of the creek channel for redundancy in the event the lower bubbler line is washed out.
- The gauge housing (metal box with equipment) will be elevated at least to the 100-year flood level and also above the bridge deck. This will ensure that the equipment in the housing (the data logger and communication equipment) will be less susceptible to high flood levels, even if flood waters overtop the bridge deck.
- The data logging equipment inside the housing will be connected to two different types of communication equipment to provide redundancy in transmitting data. The two types of equipment are radios (communicates every 5 minutes) or by satellite (every hour).
- The USGS will update their gauge Web site for these gauges to include a line on the graph at the elevation of the gauge equipment. In the event the water level graph is shown above the elevation of the equipment, then users of the data will be aware that the data provided by the gauge might be erroneous.

The four gauges to be “hardened” under the current contract include: Onion Creek at US Highway 183; Onion Creek at Twin Creeks Road; Williamson Creek at Manchaca; and Shoal Creek at 12th Street.

FEWS and USGS will assess the additional “hardening” of existing gauges and placement of new USGS gauges during the scoping process with the USGS for the next long-term service agreement. It is anticipated that the new service agreement will be prepared for review by Council towards the end of this fiscal year.

Summary of Home Buyout Program

The Watershed Protection Department (WPD) has partnered with the U.S. Army Corps of Engineers (Corps) since 1999 to find solutions to flooding in the Onion Creek watershed. A joint

study ultimately recommended a project to buyout 483 homes in the 25-year floodplain within the Onion Creek Forest, Onion Creek Plantation, and Yarrabee Bend neighborhoods; restore the riparian woodland habitat along Onion Creek; and convert the area to a park. The study selected the homes due to their high risk of flooding. These neighborhoods were evacuated in 1998, 2001, and again in the Halloween Flood of 2013.

The Corps project designated funding to be shared 35% locally and 65% federally. The latest draft cost estimate reflects a cost share for the City of \$25.5 million and a federal share of \$44.3 million. The U.S. Congress authorized the project in 2007 but, until recently, funding had not been approved for this project in the annual federal budget. In March 2014, \$11.8 million of funding was approved for the Corps project in Austin and Travis County. The details of the partnership agreement with the Corps and the division of funds between the City and the County will be worked out in the coming months.

At the time of the Halloween Flood, the City had already purchased 323 homes in the Corps project area and relocated their occupants to homes safe from flooding. This greatly reduced the number of people and homes at risk during the recent flood. The total cost of these buyouts was approximately \$36.5 million, exceeding the City's cost share for the project. Funding came from a \$7.8 million FEMA grant, the Drainage Utility Fee, the Regional Stormwater Management Program, and the 1998 and 2006 Bond Programs.

The neighborhoods of Onion Creek Forest, Onion Creek Plantation, Yarrabee Bend and Silverstone sustained the most damage during the Halloween Flood and are the areas with the most significant flood risk in the City of Austin. There are 531 residences at risk of flooding in the 100-year floodplain in these neighborhoods, and WPD plans to relocate all of the residents to homes safe from flooding. Immediately after the 2013 Halloween Flood, WPD put together the Recovery Buyout Program to purchase 116 homes to avert the rebuilding of homes within the Corps project area that were substantially damaged or destroyed during that flood. Funding for the emergency buyouts came from cost savings from completed projects and reprioritization of a small number of Capital Improvement Projects (CIP). As of March 5, 2014, appraisals have been completed for 112 homes; 88 offers have been made on the appraised homes, 65 offers have been accepted and the City has closed on nine homes. WPD anticipates making all offers by early April 2014.

In addition to the 116 homes in the recovery buyout area, there are an additional 44 homes in the Corps project area for which buyouts are currently unfunded. The City's share of the new Corps funding may be used to begin the acquisition process for those remaining properties in the Corps project area.

Outside of the Corps project area, there are 371 homes remaining in the 100-year floodplain within the Onion Creek Forest, Onion Creek Plantation, Yarrabee Bend and Silverstone neighborhoods. Many of them sustained heavy damage. WPD has recently submitted a Hazard Mitigation Grant Program (HMGP) grant application to request funding to purchase up to 37 homes outside the Corps of Engineers buyout area. The scope of this application is based on the availability of HMGP funds that FEMA has released due to the presidential disaster declaration

for the Halloween Flood. WPD also continues to explore other opportunities for funding buyouts for these homes.

Travis County has purchased 124 homes in the Timber Creek neighborhood since the 1998 floods. From 1999 - 2005 the County used FEMA grant funds through the HMGP and the Pre-Disaster Mitigation program (PDM) for buyouts. In 2005, the County began buyouts in Timber Creek in partnership with the U.S. Army Corps of Engineers (USACE) and the City of Austin. The USACE projects were designed to address the recommendations made by the USACE in its study of the Onion Creek Watershed. In addition to federal grants, Travis County voters approved \$6.0 million in bond funds for buyouts in 2005 and another \$2.75 million in 2011, to purchase properties in Timber Creek, Thoroughbred Farms, and Quiet Drive. Since the Halloween Floods, the County has received 74 applications for flood-related buyout. Offers have now been made to all property owners who sustained major damage in the Halloween Flood. An application for FEMA grant funds to buy the remaining residential buyout applicants is being prepared for submittal to the Texas Division of Emergency Management this Spring 2014.

Long-Term Recovery

Austin/Travis County Health & Human Services Department's (A/TCHHSD) case managers are providing case management to 40 families affected by the flood. These families have various needs including housing, legal issues, health and mental health concerns, utility assistance, furniture and food assistance. Families also identified a need for assistance to navigate the complex processes involved in the buyout of some properties, mortgage deferment, and other issues. Neighborhood Housing & Community Development (NHCD) continues to work closely with A/TCHHSD social services case management staff to serve as a resource to address housing assistance identified by impacted residents in the City of Austin.

NHCD continues to work with community partners and entities involved in the long-term recovery planning discussions. The department is working with VOAD to explore how best to provide services in the more comprehensive community dialogue underway to identify a long-term framework. In addition, the department is working within its existing programs to address the needs in the Dove Springs area. Funding in the amount of \$1 million has been dedicated through the GO Repair! Program, which will help to alleviate risk to life, health or safety for eligible homeowners and their families.

Following the flood incident, the City of Austin approved the issuance of a minimum life-safety building permit to allow for minimum standards repairs which included the replacement of pre-existing interior sheetrock, insulation, electrical wall plugs, doors, water heaters, and heating and cooling units. The permits also included repair and/or replacement of pre-existing exterior heating, ventilation & air conditioning (HVAC) components and front and/or rear doors.

Travis County Health and Human Services & Veterans Service (TCHHS/VS) also staffed the Flood Assistance Center. After the FAC closure, the TCHHS/VS social workers then provided services to those families who were deemed eligible for other basic needs services at our Emergency Assistance Centers.

NHCD is committed to the long-term recovery efforts underway and will continue to seek ways to bring available resources to the Dove Spring neighborhood.

WPD staff continues to work with FEMA regarding debris removal, grant funding for home buyouts, and floodplain permitting requirements.

Following the Presidentially Declared Disaster for Public Assistance, WPD has been working with HSEM, other departments, and FEMA to establish the process for debris cleanup along the City's creek system as a result of the Halloween Flood.

The Watershed Engineering Division, in coordination with HSEM, has applied for a Hazard Mitigation Grant from FEMA to provide money to expand the City's home buyout program beyond the existing Corps project area. However, even if this grant is awarded, hundreds of homes will still remain at significant risk for flooding in the Onion Creek area.

In addition, WPD staff is working with FEMA to ensure that the City's permitting process for flood damaged homes is in accordance with the City's and FEMA's floodplain regulations.

HSEM is directing long-term recovery activities for the City through the Recovery Coordinator. An employee has been hired to assume the responsibilities of the Recovery Coordinator. The Recovery Coordinator is working under the direction of the Director of HSEM. The specific responsibilities of HSEM and the Recovery Coordinator during the long-term include, but are not limited to:

- Serving as the liaison between departments/agencies and all State and Federal disaster recovery agencies;
- Ensuring all documentation gathered by each department on expenditures and damage is in the proper format for review by the State and Federal inspectors;
- Coordinating with the Departmental Point of Contact concerning site inspections by the State and Federal disaster recovery inspectors;
- Reviewing all Project Worksheets prepared by the State and Federal inspectors for accuracy, either concurring with their recommendations or generating a letter of non-concurrence;
- Maintaining accurate records of project sites, including copies of the Project Worksheets, applicable photographs and other documentation;
- Archiving all disaster recovery files with the appropriate department following the conclusion of the disaster period; and
- Managing the State or Federal single audit of the disaster.

5.0 Corrective Action Plan (CAP)

Those items listed on the CAP Spreadsheet in Appendix 1 have been assigned to the appropriate personnel within HSEM, TCOEM, and other departments/agencies for necessary action and/or will be called upon to assist with the correction of the identified deficiency.

A due date along with a primary contact has also been identified for each item. The correction of the items contained on the spreadsheet in Appendix 1 will encompass a wide assortment of actions ranging from simple changes to existing policies or procedures, to major expenditures for budgetary considerations.

Even in the best managed incidents there are always lessons to be learned and areas where professionals can concentrate on improving their response capabilities. This incident is not any different. Based on the comments received during the AAR, a Corrective Action Plan (CAP) has been created. This CAP includes the most prominent issues identified as needing attention in the AAR. The CAP has assigned appropriate personnel/agencies to address these issues, along with a timeline. The implementation of the issues identified in the CAP will be monitored and tracked by HSEM and TCOEM. The Directors of HSEM and TCOEM will ultimately be responsible for ensuring the items in the CAP are addressed.

Appendix 1 – Corrective Action Plan (CAP)

Action #	Action Description	Due Date	Assigned Dept	Contact	Status
Notifications					
1.1	Clarify to all City, County and Regional stakeholders that the AWACS paging system is, and will remain, the primary notification of EOC activations.	11/07/2014	HSEM/TCOEM	Latin/Baldwin	
1.2	Develop a notification group in FirstCall, the new regional notification system, that can be used to provide City/County management and leadership, elected officials, regional stakeholders, volunteers and responders with updated incident information.	11/07/2014	HSEM/TCOEM	Latin/Cummings/ Guajardo	
1.3	Travis County Constables should have a representative at the EOC to coordinate response from the 5 offices.	11/07/2014	TCOEM	Baldwin	
1.4	No notification of the EOC activation was received by AISD, CPIO, Law, Animal Services Office, Purchasing, the Travis County Medical Examiner or Travis County Constables.	11/07/2014	HSEM/TCOEM	Swearengin/ Guajardo	
1.5	AISD was not notified prior to helicopters landing on their southeast bus terminal grounds.	11/07/2014	EOC Directors/AISD/APD	Latin/Baldwin/Gaete/ Robledo	

Communications					
2.1	Some stakeholder organizations reported receiving “unclear or misinformed guidance,” conflicting information,” or “lacked points of contact.”	11/07/2014	HSEM/VOAD/Tx Gas Service/Red Cross/AISD	Dirr/Appropriate agency reps	
2.2	Need the earlier creation, distribution and use of a communications plan, Form ICS 205 for all responder agencies and organizations.	11/07/2014	EOC Directors	Latin/Baldwin	
2.3	Some staff had to use their personal cell phones for response activities and others reported limited cellular coverage in the affected area.	11/07/2014	Wireless/PDRD/Purchasing/HRD	Brotherton/Guernsey/Walsh/Hayes	
2.4	Shorter “stubby” antennas on some portable radios encountered limited coverage issues.	11/07/2014	CTM	Hopingardner	
2.5	The City and County need to improve the ability to timely communicate with and disseminate information to the affected public, including information to non-English speaking populations.	11/07/2014	HSEM/TCOEM/CPIO/TCPIO	Dirr/Block	
2.6	The City and County need to improve the multi-lingual social media outreach (this needs to be broadened beyond Spanish. Asian languages will be a key area of need).	11/07/2014	HSEM/TCOEM/CPIO/TCPIO	Dirr/Block	
2.7	The City needs to develop specific messaging targeting flood related topics including, but not limited to: rebuilding process (demolition, cleaning, permitting requirements) & buyouts.	11/07/2014	FEWS/CCD/PDRD/A/TCHHSD	Shunk/Cooper/Guernsey/Pichette	

Communications					
2.8	The JIC needs to improve their proficiency with EOC related equipment and tools and needs to pre-identify key information that may be needed during an activation including training in ICS.	11/07/2014	HSEM/CPIO/TCPIO	Dirr/Florance/ Block	
2.9	Continue to improve public outreach/public education efforts, to include specific education on the response to a large scale incident.	11/07/2014	HSEM/TCOEM/ CPIO/TCPIO	Dirr/Guarjado/ Florance/ Block	
2.10	Implement a community outreach plan to educate the community on public safety action plans at water-related events and provide the public information on actions they can take.	11/07/2014	AFD, APD, EMS, TCSO	Evans/Munguia/ Shamard/Hemby	
2.11	Community information meetings should be held according to standard operating procedures.	11/07/2014	HSEM/CPIO	Dirr/Florance	
2.12	Austin Energy field crews were having issues with piggy backing on other calls. Radio Communications during the incident were having issues with the repeaters.	11/07/2014	AE/Wireless	McAfee/ Brotherton	
2.13	The National Weather Service (NWS) flood stage definitions on their Web site do not reflect current conditions.	11/07/2014	WPD/NWS	Shunk	
2.14	Radio transmissions from the rain gauge network were at times delayed up to an hour, decreasing accuracy of FEWS flood forecast computer models.	11/07/2014	WPD	Shunk	

Communications					
2.15	There is a need for a combined Austin/Travis County press release template with a header that includes both Austin and Travis County seals and contact information.	11/07/2014	HSEM/TCPIO	Dirr/Block	
2.16	Any employee, who has contact with the public in person, via the phone or online, should have information to answer frequently-asked questions or at least know to whom the person should be referred.	11/07/2014	HSEM/TCPIO/HRD/ 3-1-1	Dirr/Block/Harry/ Mendoza	
2.17	The City and County should provide handouts with information needed by residents as soon as it's safe to enter impacted communities.	11/07/2014	HSEM/TCOEM/ HRD	Goodman/ Dunn/Harry	
2.18	Travis County provided recovery information to the public via the county website. The County should ensure that all necessary information is included and updated.	11/07/2014	TCOEM/TCPIO	Baldwin/Block	
2.19	SBDP did not have a sustainable plan for maintaining the information on the Get Back in Business website, and had to quickly verify and update the referenced links.	11/07/2014	EDD	Miller	
2.20	Residents were confused about the types of placards that were placed on their homes and the terms used to determine habitability. They did not know what the placards meant or what it required them to do.	11/07/2014	CCD	Cooper	

Communications					
2.21	Many of the street signs washed away which limited directional capability. Another type of signage should have been installed to assist field crews that were unfamiliar with the area.	11/07/2014	ATD	Schatz	
2.22	Public Information Officers (PIO) and the JIC need greater access to subject matter experts and designated on-camera/on the record representatives for media interviews.	11/07/2014	HSEM/CPIO/TCPIO	Dirr/Florance/ Block	
2.23	Work with departments to ensure they have enough trained, fluent Spanish speaking staff onsite.	11/07/2014	HRD	Hayes	
2.24	The City and County need to develop a network of grassroots community contacts to help disseminate critical information and collaborate with other community volunteer organizations to ensure consistency for communication to residents.	11/07/2014	HSEM/HRD/ TCOEM	Goodman/Harry/ Guajardo	
2.25	Departmental Human Resource (HR) staff was responsible for coordinating volunteers, but they did not receive the information until after Department Directors were notified. This resulted in segmented communication that created an increased amount of questions and confusion.	11/07/2014	HRD	Hayes	
2.26	The Finance Section Chief needs to be provided access to the citywide financial and payroll staff distribution lists to facilitate better communications.	11/07/2014	HSEM/Finance Department	Longmore/Hart	

Communications					
2.27	Utilize FirstCall to provide the public with emergency information such as evacuations, shelter in place, etc.	11/07/2014	HSEM/TCOEM/ CAPCOG	Latin/Cummings/ Baldwin/ Henderson	
2.28	Consider use of Austin/Travis County Amateur Radio Emergency Services (ARES) for situational awareness.	11/07/2014	HSEM/TCOEM	Swearengin/Doege	
2.29	The early warning system for Onion Creek did not work.	11/07/2014	HSEM/WPD/AFD	Latin/Cummings/ Shunk/Evans	
2.30	Travis County neighborhood of Bluff Springs was not receiving information being disseminated from the FAC due to a lack of County representation at the FAC.	11/07/2014	TCOEM	Baldwin	
2.31	FEWS staff did not receive reports of flood-related 911 calls directly and could only rely on reports from their Field Operations staff. Therefore, geographic locations of 911 calls in addition to observations from AFD, EMS, and APD were not known to FEWS during the storm incident.	11/07/2014	HSEM/WPD/AFD/ APD/EMS	Latin/Shunk/Evans/ Robledo/Shamard	
2.32	There was not an effective way to communicate directly with residents in the affected areas in English and in Spanish concerning the flood, especially as it relates to providing citizens with an enhanced awareness that conditions were worsening.	11/07/2014	HSEM/WPD/AFD	Latin/Shunk/Evans	

Communications					
2.34	Effectively promoting the website www.austinsmallbiz.com/getbackinbusiness was more difficult because information was not up-to-date, physical handouts did not exist, and website URL was confusing to access for end users.	11/07/2014	EDD	Miller	
2.35	The Department of Aviation received very little information on the rising waters from external sources. Most conditions were self-identified by Aviation staff.	11/07/2014	Aviation/HSEM	Madole/Hawkins	
2.36	Establish and communicate to policy makers clear points of contact for them during an event.	11/07/2014	Deputy City Manager/Executive Manager, Emergency Services	Michael McDonald/Danny Hobby	
2.37	Develop a process for ensuring policy makers have current and consistent information to share with the community.	11/07/2014	Deputy City Manager/Executive Manager, Emergency Services	Michael McDonald/Danny Hobby	

Emergency Operations Center (EOC)					
3.1	The use of WebEOC during this activation by EOC representatives, DOCs, and the FAC should be continued. The areas needing improvement include: CTM support, user proficiency, just-in-time training, and resolution of technical issues related to Logistics and Mission Tasking.	11/07/2014	HSEM/CTM/ CAPCOG	Hunt/Cummings/ Warren/Henderson	
3.2	Additional CTM staff should be trained to assist with WebEOC (access privileges, log-ins, passwords, troubleshooting, etc.) when HSEM staff is not available.	11/07/2014	CTM	Warren	
3.3	WebEOC accounts should not be created during an EOC activation except for those stakeholders in the EOC itself who need assistance.	11/07/2014	HSEM/TCOEM	Hawkins/Guajardo	
3.4	For events requiring a significant GIS involvement, a GIS supervisor should be appointed and charged with: developing GIS staffing, prioritizing requests and assisting requestors.	11/07/2014	HSEM/GIS ERT	Hunt/Clark	
3.5	Need to conduct training for EOC representatives on: GIS resources and capabilities, limitations and processes.	11/07/2014	HSEM/GIS ERT	Hunt/Clark	

Emergency Operations Center (EOC)					
3.6	Agencies and organizations with representatives in the EOC did not consistently report key operational components of the agency/organization and any anticipated impact from the incident during regular situational briefings or enter the information that was provided into WebEOC.	11/07/2014	HSEM/TCOEM/PSC /Dept & Orgs as needed.	Latin/Baldwin/Atkins /Reps as needed	
3.7	Key metrics must be identified that can be reported and monitored throughout an event.	11/07/2014	PSC/EOC reps as needed	Atkins/Reps as needed	
3.8	All Emergency Support Function (ESF) 8 responsibilities will be coordinated through the EOC in compliance with Annex H – Health & Medical.	11/07/2014	EOC Directors/ A/TCHHSD	Latin/Baldwin/ Pichette	
3.9	Case management Strike Teams and the triggers for activation need to be established.	11/07/2014	A/TCHHSD	Pichette	
3.10	EOC representatives must have the authority to make decisions for their agency, staff the work station assigned to their agency and remain at the EOC until relieved or the EOC is demobilized.	11/07/2014	EOC Directors	Latin/Baldwin	
3.11	All computers in the EOC should have the same configuration and increased functionality should be explored.	11/07/2014	CTM	Warren	
3.12	Additional City employees need to be identified to assist in the EOC during prolonged activations.	11/07/2014	HSEM and all City Departments	Atkins/Hunt/ Reps as needed	

Emergency Operations Center (EOC)					
3.13	Expand ICS training to non-uniformed staff that may be utilized during a large scale incident. This includes logistics and support staff.	11/07/2014	HSEM/TCOEM	Hawkins/Guajardo	
3.14	The City and County need to develop local Incident Management Teams (IMTs) capable of operating field/remote locations or supporting EOC operations.	11/07/2014	HSEM/TCOEM	Latin/Baldwin	
3.15	Some City utility facilities were adversely impacted by the incident.	11/07/2014	AE/AWU	McAfee/Kennedy	
3.16	The timing of situational briefings caused conflicts with DOCs and FAC.	11/07/2014	HSEM/CTM	Swearengin/ Hopingardner	
3.17	Travis County Constables were having difficulty communicating with EOC staff.	11/07/2014	TCOEM	Baldwin	
3.18	Need to develop a staffing plan for the key positions needed in the EOC when activated.	11/07/2014	HSEM/TCOEM	Latin/Baldwin	
3.19	The Logistics Section needs to have a consistent staff to maintain operational awareness. Logistics staff should remain in the EOC up until deactivation for demobilization purposes.	11/07/2014	HSEM/TCOEM	Latin/Baldwin	
3.20	City Corporate Safety representatives were not fully integrated into EOC operations and activations.	11/07/2014	HSEM/HRD	Atkins/Land	
3.21	The Finance Section Chief should have been activated earlier.	11/07/2014	HSEM/TCOEM	Latin/Baldwin	

Emergency Operations Center (EOC)					
3.22	Identify more members to serve on the GIS team to allow for coverage of multiple operational periods.	11/07/2014	CTM	Hopingardner	
3.23	Improve scheduling of GIS personnel to the greatest extent possible.	11/07/2014	CTM	Jensen	
3.24	City utilities were not able to access certain facilities due to denial of access by law enforcement.	11/07/2014	HSEM/TCOEM/ AWU	Latin/Baldwin/ Kennedy	
3.25	City utilities were not able to access certain facilities due to limited road access.	11/07/2014	AWU/AE/PW	Kennedy/McAfee/ Magana	
3.26	An air operations branch was not set up in the EOC.	11/07/2014	EOC Directors/Aviation/ APD/StarFlight	Latin/Baldwin/ Madole/Munguia/ Ping	
3.27	Clear tracking of road closures was not available.	11/07/2014	HSEM/FEWS/PW/ TNR/CAPCOG	Hunt/Shunk/Magana/ Ward/Henderson	
3.28	Technology limitations prevented a field situational awareness.	11/07/2014	HSEM/CTM/APD	Swearengin/ Hopingardner/ Munguia	
3.29	The EOC should have been fully activated sooner for this incident.	11/07/2014	HSEM	Latin	
3.30	USGS Stream Level Gauge at Twin Creeks was washed out and USGS Stream Level Gauge at 183 temporarily stopped functioning properly.	11/07/2014	WPD	Shunk	

Emergency Operations Center (EOC)					
3.31	The FEWS flood forecast models rely on radar-based precipitation estimates from the NWS and gauge-adjusted radar rainfall estimates from a private vendor.	11/07/2014	WPD	Shunk	
3.32	The Logistics Section was unable to use WebEOC due to technical issues.	11/07/2014	HSEM/CAPCOG	Hunt/Cummings /Henderson	
3.33	Too many users were unfamiliar with WebEOC due to a lack of use.	11/07/2014	HSEM/CAPCOG	Hunt/Henderson	
3.34	GIS staff was overwhelmed by the requests for information associated with the damage assessment teams.	11/07/2014	CTM	Jensen	
Flood Assistance Center (FAC)					
4.1	The City needs to improve its ability to rapidly set-up and operate a remote assistance center including: the early identification of the center location, pre-positioned furnishing and equipment, IMT staffing, security, appropriate agency staffing and pro-longed operations.	11/07/2014	HSEM/CTM/PARD	Shepard/ Hopingardner/Fuller	
4.2	Need pre-identified shelter setup kits with technologies, hardware, tents, tables, office equipment, etc.	11/07/2014	HSEM/CTM/BSD	Shepard/ Hopingardner/Dean	

Flood Assistance Center (FAC)					
4.3	Need lifecycle replacement of laptops, printers and network equipment that is designated for emergencies. The existing equipment was grant funded and is reaching end of life.	11/07/2014	CTM	Hopingardner/ Newman	
4.4	Engaging Information Technology (IT) experts to design a database that can be used in future events to track client information.	11/07/2014	CTM/NHCD	Hopingardner/Giello	
4.5	Although NHCD can skillfully develop housing options for individuals in search of housing options, staff is not trained in the very specific role as housing navigator. This type of expertise is needed on-site to assist in future disaster response operations.	11/07/2014	NHCD	Giello	
4.6	Need support from other City IT departments during major emergencies to provide additional staffing and resources.	11/07/2014	CTM/Departments as needed	Hopingardner	
4.7	At sites like the FAC, need to establish an IT lead to report to the Logistics Chief. The IT lead should attend command briefings to better understand needs and set expectations.	11/07/2014	HSEM/CTM	Shepard/ Hopingardner	
4.8	An awareness of what equipment and supplies might be available from other City departments would reduce the need for emergency “spot” purchases, saving time and money. Items such as printers, network cables and additional laptops	11/07/2014	HSEM/CTM	Shepard/ Hopingardner/ Newman	

Flood Assistance Center (FAC)					
4.9	A daily Incident Action Plan (IAP) should be implemented on day one.	11/07/2014	HSEM	Shepard	
4.10	Need to have participating agencies report activity (citizen counts, referrals, permits, etc.) starting from day one.	11/07/2014	HSEM/Departments as needed	Atkins	
4.11	Need to improve the information provided to the EOC about the operations of the FAC and various DOC's.	11/07/2014	HSEM	Shepard	
4.12	Difficulty of department field FAC representatives having to be physically present in the EOC each morning for briefings and at the same time having operational responsibilities at the FAC that needed attention at the same time.	11/07/2014	HSEM	Latin/Hawkins/Shepard	
4.13	The inconsistent availability of or access to volunteers overworked PARD and other City staff at the FAC.	11/07/2014	HSEM/HRD/PARD	Goodman/Harry/Fuller	
4.14	Standardized situational information for each City Department will be identified and reported to: 1) the EOC if activated, or 2) the HSEM Duty Officer if it indicates a potential change to their normal operations.	11/07/2014	HSEM/Departments as needed	Atkins	

Flood Assistance Center (FAC)					
4.15	All DOCs, the FAC, etc., must prepare Situation Reports (SitReps). All SitReps must include metrics that are identified at the start of an incident and maintained in each report. The Planning Section should develop from these SitReps, as needed, reports that are maintained with the most updated information.	11/07/2014	HSEM	Atkins	
4.16	Compile a list of A/TCHHSD staff skills/credentials and create case management strike teams.	11/07/2014	A/TCHHSD	Pichette	
4.17	Staff was forced to rely too heavily on personal cell phones for communications.	11/07/2014	HRD/Purchasing	Hayes/Walsh	
4.18	Food arrangements for remote staff were not well thought through, requiring some staff members to have to leave Dove Springs to procure food and return daily.	11/07/2014	PDRD/HSEM	Guernsey/Shepard	
4.19	According to NHCD, a significant challenge was the inability of the nonprofits to take on additional cases that required intense case management even if funding could be identified.	11/07/2014	NHCD	Giello	
4.20	Inventory Control: There was no initial inventory control when equipment was deployed.	11/07/2014	HSEM	Shepard	
4.21	The Flood Assistance Center and Sheltering Operations should be in separate facilities.	11/07/2014	HSEM	Shepard	

Flood Assistance Center (FAC)					
4.22	Signs directing people to specific areas on the FAC complex were either non-existent or non-effective.	11/07/2014	HSEM/PWD	Shepard/Magana	
4.23	Visual Situational awareness was non-existent. Consider the deployment of remote cameras in the future as technology is refreshed.	11/07/2014	HSEM	Hawkins	
4.24	Establish triggers that activate A/TCHHSD Memorandums of Understanding with community partners.	11/07/2014	A/TCHHSD	Pichette	
4.25	Develop a single intake process for case management and referrals to social services.	11/07/2014	A/TCHHSD/ NHCD	Pichette/Giello	
Volunteers (Recruitment, Management, and Safety)					
5.1	The recruitment of volunteers to assist with this response did not fully follow the EOC SOG or make effective use of Volgistics.	11/07/2014	HSEM/HRD	Goodman/Hayes	
5.2	The management and training of volunteers did not fully follow the City of Austin Volunteer Management SOP.	11/07/2014	HSEM	Goodman	
5.3	Corporate Safety representatives were not fully utilized with volunteers or field operations.	11/07/2014	HSEM/HRD	Goodman/Atkins/ Land	
5.4	Improve the management of and communications to volunteers assisting with an incident.	11/07/2014	HSEM/HRD	Goodman/Harry	

Volunteers (Recruitment, Management, and Safety)					
5.5	Improve the training and scheduling of volunteers using Volgistics, the software used by the City for volunteer management.	11/07/2014	HSEM/HRD	Goodman/Harry	
5.6	Volunteer coordination: Since many of the organizations providing services at the FAC also had volunteers in the affected area, there should have been a decision earlier in the process to add incident command staff to coordinate all the volunteers.	11/07/2014	HSEM/HRD	Shepard/Goodman/ Harry	
5.7	Due to the nature of the emergency and unforeseen needs, volunteers were unaware of the specifics of their assignments prior to the first shift.	11/07/2014	HRD	Hayes	
5.8	Providing departments' better notice when seeking volunteers.	11/07/2014	HSEM/HRD	Goodman/Hayes	
5.9	Utilize volunteer psychologists and/or social workers to be part of the teams going into affected areas.	11/07/2014	HRD/ A/TCHHSD	Hayes/Pichette	
5.10	Develop groups of employees within departments that have already agreed to respond to disasters or other serious incidents instead of trying to locate those employees when the need is critical.	11/07/2014	HRD	Hayes	
5.11	Providing a tent at the staging location to adequately provide support, equipment and materials.	11/07/2014	BSD	Dean	
5.12	Having a megaphone to facilitate delivery of orientation information to large groups.	11/07/2014	HRD	Harry	

Volunteers (Recruitment, Management, and Safety)					
5.13	Too much time was spent mobilizing which impacted actual productive work.	11/07/2014	HRD	Hayes	
5.14	Some groups became separated and it was difficult to reconnect. In addition, some teams overlapped in certain areas.	11/07/2014	HSEM/HRD	Goodman/Hayes	
5.15	Contacting non-government organizations such as Volunteer Organizations Active in Disaster (VOAD), the Austin Disaster Relief Network (ADRN), and other national volunteer organizations after they did damage assessment on their own, made it difficult to coordinate volunteer efforts, since many of these organizations covered the same area. Need to make contact with them on day one, before they deploy resources to the affected area.	11/07/2014	HSEM	Shepard/Goodman	
5.16	There was only one shift that was requested to assist in moving items and debris from front doors to curbside. Fire and non-sworn employees were not provided masks. This created a safety concern that caused coordinators to end such work immediately.	11/07/2014	HRD	Land	
5.17	Some non-emergency responders were emotionally distraught from the experience.	11/07/2014	HRD	Land	
5.18	It was difficult to hear instructions at initial meeting site.	11/07/2014	HRD	Harry	

Volunteers (Recruitment, Management, and Safety)					
5.19	Requiring employees to perform labor-related duties without an appropriate assessment of physical conditions.	11/07/2014	HRD	Land	
Field Operations (Response, Sheltering, Debris Management, and Recovery)					
6.1	Numerous issues with debris removal were identified, including: Better communication (briefing/debriefing) with field crews; issuance of appropriate Personal Protective Equipment; better traffic (vehicle and pedestrian) control; and, assign areas slated for clean-up clearly and ahead of crew deployment.	11/07/2014	ARR/Debris Removal Task Force	Angoori	
6.2	Sheltering operations did not fully follow Annex C – Shelter & Mass Care or EOC SOG.	11/07/2014	HSEM	Swearingin	
6.3	The City needs to develop a process to provide additional: transportation, fueling operations and qualified drivers during a large scale event.	11/07/2014	Fleet/Depts as needed	Walls	
6.4	A number of difficulties were encountered with the removal of animal carcasses.	11/07/2014	ASO/HSEM/APD/TCOEM	Nobles/Hawkins/Munguia/Guajardo/Dunn	
6.5	Numerous challenges in the identification and acquisition of alternate housing options for impacted residents were encountered.	11/07/2014	NHCD/PDRD/WRD/A/TCHHSD	Giello/Guernsey/Shunk/Pichette	
6.6	Field operations involving multiple departments or agencies should be better managed and coordinated.	11/07/2014	ARR/Debris Removal Planning Task Force	Angoori	

Field Operations (Response, Sheltering, Debris Management, and Recovery)					
6.7	City Departments serving on the Debris Removal Planning Task Force did not fully implement the operational concepts in Annex X – Debris Removal.	11/07/2014	ARR/Debris Removal Planning Task Force	Angoori	
6.8	APD field command post lacked computer access in the early stages of deployment and therefore did not have the ability to monitor, access, or update WebEOC.	11/07/2014	APD/CTM	Munguia/Hopingardner	
6.9	APD air support units unable to assist with rescues or evacuations because they are not equipped for such operations.	11/07/2014	APD	Munguia	
6.10	Fleet Services has identified the need to train and license additional HAZMAT qualified drivers from other city departments to assist during emergencies.	11/07/2014	Fleet/Depts as needed	Walls	
6.11	ARR experienced difficulties in maintaining the same level of service in all affected areas, including the ability of private contractors to meet city needs.	11/07/2014	ARR	Angoori	
6.12	Keeping spectators and scavengers out of the affected area.	11/07/2014	APD/TCSO	Robledo/Hemby	
6.13	Shower operations could be better managed by providing tents, chairs and tables that would allow staff to receive customers, issue supplies and provide seating while in the queue for the showers.	11/07/2014	BSD	Dean	

Field Operations (Response, Sheltering, Debris Management, and Recovery)					
6.14	Early coordination by FAC with Red Cross to provide shower supplies to the shower operations staff for distribution to people using the shower trailers.	11/07/2014	HSEM	Shepard	
6.15	CCD Inspectors need equipment to protect themselves from aggressive dogs.	11/07/2014	CCD/ASO	Cooper/Nobles	
6.16	The FEWS Onion Creek flood forecast model uses several of the USGS gauges as boundary conditions. For instance, USGS gauges in Williamson Creek, Slaughter Creek, and Onion Creek are all used as inputs into the forecast model for lower Onion Creek.	11/07/2014	WPD	Shunk	
6.17	Starting just after midnight on October 31, the FEWS flood forecast mapping computer server stopped functioning properly.	11/07/2014	WPD	Shunk	
6.18	Animal Services is not clear on their scope of authority in a first responder situation; better coordination and clearer communication is needed with public safety agencies. Support is needed from APD, specifically in this case by assisting with horse trailers and tack.	11/07/2014	ASO/APD	Nobles/Munguia	
6.19	Choosing Capital Areas Shelter Hub Plan (CASH-P) approved sheltering sites would be better than ad hoc churches and recreation centers. Parker Lane and Dove Springs were not vetted, and not ideal, for pet sheltering.	11/07/2014	HSEM	Hawkins/Shepard	

Field Operations (Response, Sheltering, Debris Management, and Recovery)					
6.20	Process for notification of and request for regional and state water rescue assets.	11/07/2014	EOC Directors	Latin/Baldwin	
6.21	Conduct additional joint swift water training.	11/07/2014	AFD/APD/EMS/ TCSO	Evans/Munguia/ Shamard/Hemby	
6.22	Travis County needs to develop a policy to address private property clean-up and funding should be appropriated to address disaster events.	11/07/2014	TCOEM/TNR	Baldwin/Ward	
6.23	Fleet Services is not staffed or equipped to provide transportation assets with drivers in these types of events. FSD managers were required to act as drivers during this emergency which was an inappropriate application of staff.	11/07/2014	FSD/Depts as needed	Walls	
6.24	Alternative methods of accessing Sand Hill and Onion Creek substation need to be reviewed and implemented to increase accessibility options during emergencies.	11/07/2014	AE/AWU	McAfee/Kennedy	
6.25	The flooding of Onion Creek took out the Onion Creek electrical substation, cutting off all electrical power to South Austin Regional Wastewater Treatment Plant (SAR).	11/07/2014	AE/AWU	McAfee/Kennedy	
6.26	Establish an alternate access roadway into SAR. The flooding and subsequent damage to Fallwell Lane isolated the plant from needed resources.	11/07/2014	AE/AWU/PWD	McAfee/Kennedy/ Magana	

Field Operations (Response, Sheltering, Debris Management, and Recovery)					
6.27	Lack of field facilities for crews. A mobile crew support trailer would have been helpful for field responders to eat, drink water, and charge cell phones.	11/07/2014	BSD/Fleet/PARD	Dean/Walls/Fuller	
6.28	Workers assigned to debris response should receive vaccinations against diseases that they may come into contact with during the response.	11/07/2014	HRD/ A/TCHHSD	Land/Pichette	
6.29	Household Hazardous Waste was not separated from regular garbage.	11/07/2014	ARR	Angoori	
6.30	Water rescue 911 calls were not all triaged correctly. Specialized resources (boats and helicopters) were dispatched to calls that were a low priority and would not have warranted a boat or helicopter response.	11/07/2014	AFD/EMS/STAR Flight/EOC Directors	Evans/Shamard/Ping/ Latin/Baldwin	
6.31	The current AMANDA system used by CCD for case management was not designed for emergency response and caused significant case management problems.	11/07/2014	CCD/CTM	Cardenas/ Hopingardner	
6.32	Communication about shelter location transition from Parker Lane to Dove Springs failed. Transition from Parker Lane to Dove Springs was very rough; people and pets arrived at Dove Springs before the animal sheltering area was set up.	11/07/2014	HSEM	Shepard	

Plans and Procedures					
7.1	All plans, procedures and annexes cited in this AAR or used in this response should be reviewed, revised and updated as appropriate.	11/07/2014	HSEM/TCOEM/All departments	Latin/Baldwin/Dept Directors	
7.2	All Departments should submit for legal review their policies and procedures related to long-term recovery issues, prior to dissemination to the public.	11/07/2014	Law/WPD/PDRD/Depts as needed	Morgan/Shunk/Guernsey	
7.3	Annex E – Evacuations and Appendix F – Re-entry of Annex J should be revised and updated as needed.	11/07/2014	HSEM/Depts as needed	Hawkins/Atkins	
7.4	Departments should review and implement FEMA guidelines and procedures where applicable.	11/07/2014	CCD/WPD/Finance/Depts as needed	Cooper/Shunk/Herring	
7.5	A policy and process needs to be developed and implemented which establishes a badging system to identify and authorize mission critical responders to enter areas that are restricted but don't pose an immediate danger to life and health.	11/07/2014	AWU/AE/HSEM/TCOEM	Kennedy/McAfee/Latin/Baldwin	
7.6	CCD's damage assessment criteria did not coincide with FEMA's criteria.	11/07/2014	CCD	Cooper	
7.7	All Departments need to ensure that COOP plans are updated and exercised regularly to ensure that contact information, "go kits", etc. are ready at a moment's notice.	11/07/2014	HSEM/All departments	Atkins/COOP planners	
7.8	Update the EOC SOG plan and use it for all EOC activations.	11/07/2014	HSEM/TCOEM	Swearengin/Guajardo	

Plans and Procedures					
7.9	Update the Recovery plan with information from this incident, and information obtained from the FEMA Austin/Travis County Community Specific Integrated Emergency Management Course conducted in Emmitsburg, Maryland.	11/07/2014	HSEM	Atkins/Latin/Swearengin	
7.10	Have a Recovery Coordinator on staff before the FEMA Kickoff Meeting.	11/07/2014	HSEM	Latin	
7.11	Create a planning group to put together some procedures related to how to trigger a mandatory evacuation as well as reentry procedures.	11/07/2014	HSEM/APD	Shepard/Robledo	
7.12	City needs to assess the need for calculating the long-term cost of disasters.	11/07/2014	HSEM/Finance	Longmore/Thomas	
7.13	Develop Timelines/Gantt Charts and additional training for implementing the Disaster Recovery Plan.	11/07/2014	HSEM	Latin/Kelly	
7.14	AFD will implement a proactive staffing plan for water related events that would allow AFD to pre-position water resources in opportune areas based on finite metrics provided by weather forecasting, command level experience, and situational awareness of affected communities.	11/07/2014	AFD	Evans	
7.15	Need to develop a policy to deal with life safety building permits.	11/07/2014	WPD/PDRD/CCD	Shunk/Guernsey/Cooper	

Plans and Procedures					
7.16	The Austin Financial Services Department needs to develop a policy to address the reimbursement of departments that serve as Logistics Section Chief in the EOC and use their Procard to make purchases.	11/07/2014	Finance	Hart	
7.17	The Austin Financial Services Department needs to identify and assign the appropriate management staff to be trained and serve as Finance Section Chief during EOC activations.	11/07/2014	Finance	Hart	
7.18	CCD did not have an emergency response plan to address large scale emergency events that require mass damage assessments.	11/07/2014	CCD	Cooper	
7.19	There is no plan in place to evacuate or perform search and rescue for horses and other livestock.	11/07/2014	ASO	Nobles	
7.20	Organize a process for meeting and briefing policy makers early in an incident.		Deputy City Manager/Executive Manager, Emergency Services	Michael McDonald/Danny Hobby	
7.21	Provide training to keep policy makers up-to-date on how they can access information and staff operational procedures.		Deputy City Manager/Executive Manager, Emergency Services	Michael McDonald/Danny Hobby	
7.22	Ensure that there are organized plans to guarantee officials and policy makers have access to impacted sites.		Deputy City Manager/Executive Manager, Emergency Services	Michael McDonald/Danny Hobby	

Appendix 2 – Mayor’s Letter to Governor and Declaration of Local State of Disaster



City of Austin

Founded by Congress, Republic of Texas, 1839
P.O. Box 1088, Austin, Texas 78767

November 4, 2013

The Honorable Rick Perry
Governor of Texas
c/o State Coordinator
Division of Emergency Management
P.O. Box 4087
Austin, Texas 78773-0001

Dear Governor Perry:

On October 31, 2013, the City of Austin was severely impacted by a rain event that produced record amounts of rainfall. The hardest hit areas in Travis County were along Onion Creek. The flooding has damaged homes, government facilities and roadway infrastructure. Over 1,000 homes have been impacted. Numerous roads, bridges and drainage culverts have sustained damage due to flood waters. Efforts are underway to get an accurate assessment of costs associated with the losses. The City of Austin expects to incur significant costs associated with debris removal once the water starts to recede.

While recovery efforts are underway, it is my belief the damage to homes and business due to the rain constitutes a potential public health and safety hazard. I have determined that this incident is of such severity and magnitude that an effective response is beyond the City of Austin's capability to recover without supplementary State and/or Federal assistance. Additionally, I certify that the City of Austin does not have local funding available to make the needed repairs and to provide these citizens with effective relief.

Your assistance in this emergency matter, as it affects the safety and health needs of our citizens would be appreciated.

Sincerely,


Lee Leffingwell, Mayor of Austin

*The City of Austin is committed to compliance with the Americans with Disabilities Act.
Reasonable modifications and equal access to communications will be provided upon request.*

OFFICE OF THE MAYOR
OF
THE CITY OF AUSTIN

DECLARATION OF LOCAL STATE OF DISASTER

BE IT KNOWN:

WHEREAS, on October 31, 2013 residents of the City of Austin incurred significant business and personal losses due to torrential rains and widespread flooding; and

WHEREAS, businesses were damaged and hundreds of residents displaced by widespread and severe flooding and high winds; and

WHEREAS, the City of Austin government is incurring extraordinary expenses associated with responding to the flooding and severe weather; and

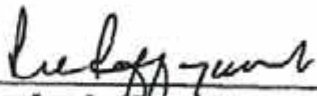
WHEREAS, immediate and concerted actions and funding are required to begin rehabilitation and recovery efforts to return businesses and public facilities to normal operations and persons to homes and living quarters; **NOW, THEREFORE**,

By virtue of the authority vested in me by the City Charter, as the presiding officer of the governing body and under Government Code, Section 418.108, I DECLARE a local state of disaster within the City to continue until November 11, 2013, a period of seven days, subject to continuation or renewal by consent of the City Council.

I further proclaim activation of the City of Austin, Emergency Operations Plan and the activation of all other Charter, statutory, and ordinance powers vested in me and all officers of the City of Austin to act in this local state of disaster.


The City Clerk is directed to give prompt and general publicity of the issuance of this DECLARATION.

DECLARED this 4th day of November, 2013, in the City of Austin, Travis County, Texas in witness whereof I subscribe my name and cause to be affixed the seal of the City of Austin.


Lee Leffingwell
Mayor

Filed with me, City Clerk of the City of Austin this 4th day of November, 2013, by Mayor Lee Leffingwell whose signature I hereby give my hand and the seal of the City of Austin.


City Clerk

FILED IN THE OFFICE OF CITY CLERK
ON 4th DAY OF NOV 2013
AT 11:40AM

CITY CLERK

Appendix 3 – Travis County Judge's Letter to Governor and Flooding Disaster Declaration



SAMUEL T. BISCOE

COUNTY JUDGE

TRAVIS COUNTY ADMINISTRATION BUILDING
700 LAVACA ST., SUITE 2.700
P.O. BOX 1748 AUSTIN, TEXAS 78767
(512) 854-9555

November 4, 2013

The Honorable Rick Perry
Governor of Texas
c/o State Coordinator
Division of Emergency Management
P.O. Box 4087
Austin, Texas 78773-0001

Dear Governor Perry:

On October 31, 2013, Travis County was severely impacted by a rain event that produced record amounts of rainfall. The hardest hit areas in Travis County were along Onion Creek and impacted homes, government facilities and damaged roadway infrastructure. Travis County has recorded three fatalities as a result of the flooding and over 1000 homes have been impacted. Numerous roads, bridges and drainage culverts have sustained damage due to flood waters. Efforts are underway to get an accurate assessment of costs associated with the losses. Travis County and jurisdictions within Travis County expect to incur significant costs associated with debris removal once the water starts to recede.

While recovery efforts are underway, it is my belief the damage to homes and businesses due to the rain constitutes a potential public health and safety hazard. I have determined that this incident is of such severity and magnitude that an effective response is beyond Travis County's capability to recover without supplementary State and/or Federal assistance. Additionally, I certify that Travis County does not have local funding available to make the needed repairs and to provide these citizens with effective relief.

Your assistance in this emergency matter, as it affects the safety and health needs of our citizens would be appreciated.

Sincerely,

A handwritten signature in cursive script that reads "Samuel T. Biscoe".

Samuel T. Biscoe,
Travis County Judge

Return:

INTER-OFFICE -- HON. SAM T. BISCOE
TRAVIS COUNTY COMMISSIONER'S COURT

FILED AND RECORDED

OFFICIAL PUBLIC RECORDS

A handwritten signature in cursive script that reads "Dana DeBeauvoir".

Nov 04, 2013 10:08 AM 2013199329

FEE: \$0.00

Dana DeBeauvoir, County Clerk
Travis County TEXAS



TRV
2 PGS

2013199329

**TRAVIS COUNTY
FLOODING DISASTER DECLARATION**

ORIGINAL
FILED FOR RECORD

WHEREAS, the County of Travis on the 31th day of October, 2013, suffered fatalities, severe damage, and loss of property resulting from a significant rainfall event; and

WHEREAS, after an extensive survey, the Judge of the County of Travis has determined that extraordinary measures must be taken to alleviate the suffering of people and to rehabilitate property;

NOW, THEREFORE, BE IT PROCLAIMED BY THE JUDGE OF THE COUNTY OF TRAVIS:

Section 1. That a state of disaster is declared for the County of Travis.

Section 2. That the County's Emergency Management Plan has been implemented.

Section 3. That the state of disaster shall continue for a period of not more than seven days of the date hereof, unless the same is continued by consent of the Commissioners' Court of the County of Travis, Texas.

Section 4. That this proclamation shall take effect immediately from and after its issuance.

ORDERED this 4th day of November, 2013.

Samuel T. Biscoe
Samuel T. Biscoe, County Judge
County of Travis, Texas

FILED IN THE OFFICE OF
THE TRAVIS COUNTY CLERK

Dana DeBeauvoir
Dana DeBeauvoir, County Clerk

Date: Nov. 4, 2013

Appendix 4 – Governor’s Request for Presidential Disaster Declaration



OFFICE OF THE GOVERNOR

MIKE PERRY
GOVERNOR

December 12, 2013

The Honorable Barack Obama
President of the United States
The White House
1600 Pennsylvania Avenue, NW
Washington, D.C. 20500

Through: Regional Administrator Tony Robinson
FEMA Region 6
Denton, Texas

RE: REQUEST FOR PRESIDENTIAL DISASTER DECLARATION

Dear Mr. President:

Under the provisions of Section 401 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§5121-5207 and implemented by 44 CFR §206.35 and §206.36, I request that you declare a major disaster for the State of Texas as a result of excessive flooding in Caldwell, Hays and Travis counties, beginning on October 30, 2013 and continuing through November 16, 2013.

I issued a state disaster proclamation on December 12, 2013.

On October 30, 2013, an upper level disturbance, a cold front and deep tropical moisture converged over south central Texas. The heavy rain threat was enhanced by remnants of weakening Tropical Storm Raymond in the Eastern Pacific. Severe thunderstorms flooded watersheds in Caldwell, Hays and Travis counties.

In less than 24 hours, rainfall totals in the three-county area reached more than 12 inches, causing watershed basins to overflow and dumping massive amounts of water into creeks in the area. Rainfall amounts exacerbated the situation as a similar storm two weeks earlier had saturated soils in the area.

Various creeks and rivers overflowed, including: the Blanco River, Wood Creek, Onion Creek, Bull Creek, Williamson Creek, Slaughter Creek, Walnut Creek, the Colorado River and the San Marcos River. There were other minor flooding events across central and eastern Texas.

This incident caused six confirmed fatalities and numerous injuries. Flooding caused widespread damage to homes, businesses and public infrastructure across the state, resulting in the need for significant debris removal operations, which continue today.

POST OFFICE BOX 12428 AUSTIN, TEXAS 78711 (512)463-2000 (VOICE)/DIAL 7-1-1 FOR RELAY SERVICES
VISIT WWW.TEXASONLINE.COM THE OFFICIAL WEB SITE OF THE STATE OF TEXAS

Extensive search and rescue operations began early October 31 and continued for several days. The last missing person was recovered from a submerged vehicle on November 12. Although authorities knew the victim's location, waters in the river were too treacherous to attempt recovery until November 12.

The majority of residential and commercial damage centered in the Onion Creek area of the City of Austin in Travis County. Onion Creek reached an historic crest at 40 feet, overflowing and causing severe damage to entire neighborhoods. The previous record was set in 1869 and 1921 at 38 feet. The last major flood in this area was in 2001 when the creek reached 36.5 feet.

Flood gauges were damaged by raging waters, causing limited warning and catching residents and officials off guard. Some flooding occurred outside the normal floodplain and the rapid rise in the creek occurred overnight when most residents were asleep. Residents were cut off from evacuation routes by rapidly rising water. Most evacuations occurred after flooding caused significant damage to homes and vehicles. Many residents were rescued from roofs and cars tops.

The Onion Creek area consists of working families who, according to a Census Bureau report, have a median household income under \$40,000 — well below the state and national average. There was also damage in rural areas of Hays and Caldwell counties. In addition to being an area with lower household income, residents in this area are severely underinsured and uninsured.

Travis County EMS evacuated 625 homes. Several shelters opened for flood victims and remained open until November 15, the same day the Austin Police Department was able to return to normal activities in the affected neighborhoods.

Several elementary schools closed due to impassable roads and power outages. More than 3,800 homes experienced power outages.

Local Individual Assistance (IA) damage assessments were conducted for Caldwell, Hays and Travis counties. Results from these assessments initiated a request for a joint state/FEMA/Small Business Administration (SBA) IA damage assessment, which was conducted in the same counties November 8-10, 2013. This joint IA damage assessment for homes in Travis, Caldwell and Hays counties resulted in a finding that 858 homes were impacted as tabulated in the enclosure. This includes 82 affected, 169 with minor damage, 469 with major damage and 138 destroyed.

While only 287 of the 607 homes that were destroyed or incurred major damage were uninsured, interviews with the homeowners indicated that a significant number of those with flood insurance did not carry contents insurance. In addition, about 20 percent of the area consists of rental homes. Most of these are not insured for contents.

We believe that the number of underinsured homes that were destroyed or withstood major damage, including those that were uninsured, is more than 400. In addition, there were more than 75 private businesses/nonprofit entities that sustained damage, with more than 25 of these having damages classified as major or destroyed. It is also noted that 70 recreational vehicles (RV) were destroyed in an RV park in Caldwell County.

Long-term recovery planning started with initial meetings on November 13. Both the City of Austin and Travis County have indicated they will attempt to implement a limited buyout program, dependent on available funding, for the hardest-hit areas. This could be further limited by the amount of infrastructure damage sustained.

Critical infrastructure facilities, such as water treatment plants, roads and bridges, were also damaged. Public water systems, including lift stations, were offline due to water line damage for which personnel rerouted systems to restore service.

Several roads and bridges were temporarily closed due to damage and the River Road Plantation Bridge in Travis County will remain closed until extensive repairs can be made to the infrastructure.

Significant debris removal operations have been and continue to be necessary. This includes curbside removal of damaged housing materials and contents, as well as vegetative debris removal, carcass removal and vehicle recovery. Debris located in the watershed will hamper drainage and could result in additional flooding.

State and local Public Assistance damage assessments were conducted on November 19–26, 2013, for Caldwell, Hays and Travis counties. The results of these initiated a request for a joint state/FEMA damage assessment, which was conducted in the same counties December 3–5, 2013. Preliminary estimates of damages to public infrastructure and the amount of assistance needed for debris removal and emergency protective measures under the Stafford Act indicate damages in excess of \$48 million and are tabulated in the enclosure.

A summary of the types of damages surveyed is found below.

Travis County

- Roads and bridges: 10 roads, 9 bridges and culverts - \$11.6M
 - River Plantation Bridge remains closed indefinitely for repairs
- Utilities: 10 sites, include lift stations, manholes, etc. - \$28.4M
- Parks, rec other: 16 locations, include public golf courses, hike and bike trails and parks - \$1.1M
- Buildings and equipment: \$563k
- Debris: 25 sites - \$3M

Hays County

- Emergency protective measures: \$37.6k
- Roads and bridges: 88 roads - \$327.7k
- Public utilities: 1 lift station - \$647k
- Parks, rec other: 11 playgrounds, 2 trails - \$108k
- Buildings: 2 – fire department and an elementary school - \$725k
- Debris: 4 sites noted with significant debris - \$22k

Caldwell County

- Roads and bridges: 32 sites - \$748k
- Water control facility: 1 site - \$10k
- Parks, rec other: 1 - \$355k
- Debris: 18 significant sites noted - \$98k

Several other counties experienced flooding, storm damage and tornadoes (touchdown in Bridge City, Texas). Either Preliminary Damage Assessments (PDA's) have not yet been done or the counties did not meet their threshold for damages during preliminary assessments.

The Salvation Army (TSA) opened three shelters, one of which remained open for approximately two weeks. Several canteens were set up to feed victims and responders. A laundry unit was provided for affected residents in Austin.

The American Red Cross (ARC) engaged with sheltering, feeding and mobile bulk food distribution. Mobile feeding continues in Caldwell, Hays, Travis and Williamson counties. There has been a large response from the Voluntary Organizations Active in Disaster (VOAD) community and other charitable organizations. This event received little media coverage nationally or regionally. While the Austin area is well known across the world and is ranked by the Census Bureau as the nation's 35th largest metropolitan area behind San Jose and Indianapolis, it is not a major television market. As a result, the VOADs are reporting limited donations.

The following information is furnished on the nature and amount of state and local government resources that have been used to alleviate the conditions of this disaster:

- Texas Search and Rescue (TEXSAR), a nonprofit search and rescue and disaster response team, mobilized in Caldwell County to assist in search and rescue and incident management duties, coordinating resource requests and obtaining technical specialists for specific operational guidance.
- The Texas Department of Public Safety (DPS) provided an aircraft to assist in one hoist rescue. DPS deployed a mobile disaster unit to central Texas to issue replacement Texas

driver's licenses and identification cards to victims who lost those documents in the floods. State Troopers continue to assist in impacted areas.

- Texas Military Forces (TMF) provided seven high-profile vehicles (HPVs) with 18 personnel to support flooding in central Texas. They activated two UH60 helicopters with hoists. An additional Transportation Force Package consisting of 10 HPVs and 32 personnel was activated by the governor to respond to flooding in southeast Texas.
- The Texas Animal Health Commission (TAHC) provided two personnel to assist with deceased domestic animals and provided information on disposal locations to the public.
- 2-1-1 Texas, a program managed by the Texas Health and Human Services Commission providing information and referral services in Texas, monitored school openings and closures and continues to provide information to callers as needed.
- The Texas Department of Transportation (TxDOT) provided crews from the Austin District to assist Caldwell County with repairs to a washed out culvert. TxDOT crews continue with clean-up operations in Waco, Austin, San Antonio, Houston and Beaumont.

Over the past 12 months Texas has experienced numerous events requiring response activities, including:

- October 23, 2012: A local state of disaster declared for Concho County for excessive rain and flooding. A Public Assistance (PA) damage assessment for the county was \$62,894.68.
- November 12, 2012: A local state of disaster declared for the City of Marlin resulting from a failure of the local water system. The water production rate diminished to approximately 25 percent of normal capacity.
- December 25, 2012: A local state of disaster declared for Houston County for tornado activity and severe thunderstorms. Six structures were affected. A PA damage assessment for the county showed approximately \$135,000 in damages to the local utility co-op.
- April 17, 2013: A Presidential Disaster declared (DR and EM) for the West Fertilizer Plant explosion. PDAs are in excess of \$35 million. Project worksheet (PW) coordination is ongoing.

- May 15, 2013: A local state of disaster declared in North Texas for a severe outbreak of tornadoes, resulting in numerous fatalities and damage to over 100 homes and businesses. PA damages exceeded \$1.4 million.
- May 23, 2013: A local state of disaster declared in Kent County for severe storms with large hail damaging five homes.
- May 25–27, 2013: A local state of disaster declared for the City of San Antonio and Bexar County for severe flooding damaging more than 200 homes and three businesses with an estimate of more than \$7 million in damage to infrastructure.
- June 14–15, 2013: A local state of disaster declared for the City of Eagle Pass and Maverick County for severe flooding damaging more than 300 homes and causing more than \$6 million in damage to local infrastructure.
- July 14–16, 2013: A local state of disaster declared for Callahan County for severe flooding causing more than \$500,000 in infrastructure damage.
- July 14–17 2013: A local state of disaster declared for Eastland County for severe flooding causing more than \$80,000 in infrastructure damage.
- September 11–13, 2013: A local state of disaster declared for the City of El Paso and El Paso County for severe flooding damaging 37 homes and causing more than \$1.3 million in infrastructure damage.
- October 13, 2013: A local state of emergency declared for the City of Turkey and Hall County for severe flooding causing extensive damage to roads and bridges.
- Ongoing: The Governor of Texas continues to renew a Statewide Drought Proclamation in effect for the past 36 months. The proclamation states that drought conditions have reached historic levels and continue to pose an imminent threat to public health, property and the economy. The April 2013 proclamation included 240 of the 254 counties in Texas. These 240 counties have a combined population of 24,637,554 and cover a total of 255,689 square miles.
- Ongoing: The United States Department of Agriculture (USDA) has issued multiple agricultural drought declarations over the last 24 months including all 254 Texas counties.

In addition to these recent events, Texas is still recovering from the 2011 wildfires, the worst in Texas history, receiving two presidentially declared disasters (DR 4029 and DR 1999) and

devastating wildfires at Livermore Ranch in West Texas for which they received a Fire Management Assistance Grant (FMAG) in 2012.

The following information provides detailed information on the impacted population.

	Average of Persons Below Poverty Level**	Median Household Income**	Percent Elderly**	Percent Pre-Disaster Unemployment*
National Average	14.3%	\$52,762	13.7%	7.4%
State Average	15.8%	\$48,259	10.5%	6.4%
Caldwell County	20.7%	\$43,136	12.6%	7.7%
Hays County	16.4%	\$58,247	9.2%	5.7%
Travis County	16.6%	\$55,452	7.8%	5.4%
Williamson County	6.3%	\$71,346	9.6%	5.6%

* Bureau of Labor Statistics

** Census Bureau

Pursuant to 44 CFR §206.35 and §206.36, this incident is of such magnitude and severity that effective response is beyond state and local capabilities and supplementary federal assistance is necessary to save lives, protect property, public health and safety, and lessen the impact of the disaster.

As a result of this disaster, the State of Texas is specifically requesting a major disaster declaration for Individuals and Households Programs (IA), Other Needs Assistance (ONA), Crisis Counseling, Disaster Unemployment Assistance, Disaster Legal Assistance, Disaster Case Management, Public Assistance and Hazard Mitigation to support the citizens of the State of Texas.

Sincerely,



Rick Perry
Governor

RP:dzk

Enclosures

Appendix 5 – U.S. Small Business Administration Declaration



DISASTER NEWS

Loans for Homeowners, Renters and Businesses of All Sizes

Release Date: November 22, 2013

Media Contact: Richard Jenkins

Release Number: TX 13823-01

Phone: (916) 735-1500

SBA Offers Disaster Assistance to Texas Residents and Businesses Affected by the Severe Flooding

SACRAMENTO, Calif. – Low-interest federal disaster loans are available to Texas residents and business owners affected by the severe storms and flooding that occurred from October 30 - 31, 2013, U. S. Small Business Administration (SBA) Acting Administrator Jeanne Hulit announced today. SBA acted under its own authority to declare a disaster in response to a request SBA received from Gov. Rick Perry on November 20, 2013.

The disaster declaration makes SBA assistance available in the primary Texas counties of Caldwell, Hays and Travis and the neighboring counties of Bastrop, Blanco, Burnet, Comal, Fayette, Gonzales, Guadalupe and Williamson.

“The U. S. Small Business Administration is strongly committed to providing Texas with the most effective and customer-focused response possible, and we will be there to provide access to federal disaster loans to help finance recovery for residents and businesses affected by the disaster,” said Hulit. “Getting our businesses and communities up and running after a disaster is our highest priority at SBA.”

“Low-interest federal disaster loans are available to homeowners, renters, businesses of all sizes and private, nonprofit organizations whose property was damaged or destroyed by this disaster,” said SBA’s San Antonio District Director Pamela Sapia. “Beginning Monday, November 25, SBA representatives will be on hand at the following Disaster Loan Outreach Centers to answer questions about SBA’s disaster loan program, explain the application process and help each individual complete their application,” Sapia continued. The centers will be open on the days and times indicated until further notice. No appointment is necessary.

CALDWELL COUNTY

Disaster Loan Outreach Center
Caldwell County Scott Annex
Caldwell County Office of
Emergency Services
1403 Blackjack Street, Suite E
Lockhart, TX 78644

HAYS COUNTY

Disaster Loan Outreach Center
Hays County Precinct 2 Office
5458 FM 2770
Kyle, TX 78640
(corner of Crystal Meadow Drive
across from Barton Middle School)

TRAVIS COUNTY

Disaster Loan Outreach Center
Dove Springs Recreation Center
5801 Ainez Drive
Austin, TX 78744

Opens Thursday, December 5 at 9 am

Thursdays & Fridays, 9 am – 6 pm

Closes Thurs., Dec. 12***Opens Tuesday, December 3 at 9 am***

Mondays - Wednesdays, 9 am – 6 pm

Closes Wed., Dec. 11***Opens Monday, Nov. 25***

Mon. Nov. 25, 12 pm – 6 pm

Tues. Nov. 26, 9 am – 6 pm

Wed., Nov. 27, 9 am – 12 pm

(closed Thanksgiving weekend)***Re-opens Tuesday, Dec. 3 at 9 am***

Mondays – Fridays, 9 am – 6 pm

until further notice

Disaster loans up to \$200,000 are available to homeowners to repair or replace damaged or destroyed real estate. Homeowners and renters are eligible for up to \$40,000 to repair or replace damaged or destroyed personal property.

Businesses of any size and private, nonprofit organizations may borrow up to \$2 million to repair or replace damaged or destroyed real estate, machinery and equipment, inventory, and other business assets. SBA can also lend additional funds to homeowners and businesses to help with the cost of making improvements that protect, prevent or minimize the same type of disaster damage from occurring in the future.

For small businesses, small agricultural cooperatives, small businesses engaged in aquaculture, and most private, nonprofit organizations of any size, SBA offers Economic Injury Disaster Loans (EIDLs) to help meet working capital needs caused by the disaster. EIDL assistance is available regardless of whether the business suffered any property damage.

Interest rates can be as low as 2.25 percent for homeowners and renters, 2.625 percent for private, nonprofit organizations and 4 percent for businesses, with terms up to 30 years. Loan amounts and terms are set by SBA and are based on each applicant's financial condition.

Applicants may apply online using the Electronic Loan Application (ELA) via SBA's secure Web site at <https://disasterloan.sba.gov/ela>.

Disaster loan information and application forms are also available from SBA's Customer Service Center by calling (800) 659-2955 or e-mailing disastercustomerservice@sba.gov. Individuals who are deaf or hard-of-hearing may call (800) 877-8339. For more information about SBA's disaster assistance programs, visit <http://www.sba.gov/disaster>.

The filing deadline to return applications for property damage is **January 21, 2014**. The deadline to return economic injury applications is **August 22, 2014**.

SBA Field Operations Center - West, P.O. Box 419004, Sacramento, CA 95841

Appendix 6 – Texas Severe Storms and Flooding FEMA-4159-DR

**Texas – Severe Storms and Flooding
FEMA-4159-DR*****Declared December 20, 2013***

On December 12, 2013, Governor Rick Perry requested a major disaster declaration as a result of severe storms and flooding during the period of October 30-31, 2013. The Governor requested a declaration Individual Assistance and Public Assistance for three counties and Hazard Mitigation statewide. During the period of November 8-10, 2013 and December 3-6, 2013, joint federal, state, and local government Preliminary Damage Assessments (PDAs) were conducted in the requested counties and are summarized below. PDAs estimate damages immediately after an event and are considered, along with several other factors, in determining whether a disaster is of such severity and magnitude that effective response is beyond the capabilities of the state and the affected local governments, and that Federal assistance is necessary.

¹ The Preliminary Damage Assessment (PDA) process is a mechanism used to determine the impact and magnitude of damage and resulting needs of individuals, businesses, public sector, and community as a whole. Information collected is used by the State as a basis for the Governor's request for a major disaster or emergency declaration, and by the President in determining a response to the Governor's request (44 CFR § 206.33).

² When a Governor's request for major disaster assistance under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended (Stafford Act) is under review, a number of primary factors are considered to determine whether assistance is warranted. These factors are outlined in FEMA's regulations (44 CFR § 206.48). The President has ultimate discretion and decision making authority to declare major disasters and emergencies under the Stafford Act (42 U.S.C. § 5170 and § 5191).

³ Degree of damage to impacted residences: Destroyed – total loss of structure, structure is not economically feasible to repair, or complete failure to major structural components (e.g., collapse of basement walls/foundation, walls or roof); Major Damage – substantial failure to structural elements of residence (e.g., walls, floors, foundation), or damage that will take more than 30 days to repair; Minor Damage – home is damaged and uninhabitable, but may be made habitable in short period of time with repairs; and Affected – some damage to the structure and contents, but still habitable.

⁴ By law, Federal disaster assistance cannot duplicate insurance coverage (44 CFR § 206.48(b)(5)).

⁵ Special populations, such as low-income, the elderly, or the unemployed may indicate a greater need for assistance (44 CFR § 206.48(b)(3)).

⁶ Ibid (44 CFR § 206.48(b)(3)).

⁷ Based on State population in the 2010 Census.

⁸ Statewide Per Capita Impact Indicator for FY14, *Federal Register*, October 1, 2013.

⁹ Countywide Per Capita Impact Indicator for FY14, *Federal Register*, October 1, 2013.

On December 20, 2013, President Obama declared that a major disaster exists in the State of Texas. This declaration made Public Assistance requested by the Governor available to state and eligible local governments and certain private nonprofit organizations on a cost-sharing basis for emergency work and the repair or replacement of facilities damaged by the severe storms and flooding in Caldwell, Hays, and Travis Counties. This declaration also made Hazard Mitigation Grant Program assistance requested by the Governor available for hazard mitigation measures statewide.²

Summary of Damage Assessment Information Used in Determining Whether to Declare a Major Disaster

Individual Assistance

☐ Total Number of Residences Impacted: 858

Destroyed - 138

Major Damage - 469

Minor Damage - 169

Affected - 82

☐ Percentage of insured residences: 51%

☐ Percentage of low income households: 12%

☐ Percentage of elderly households: 9.1%

☐ Total Individual Assistance cost estimate: \$1,098,519

Public Assistance -

☐ Primary Impact: Damage to Utilities

☐ Total Public Assistance cost estimate: \$48,459,113

☐ Statewide per capita impact: \$1.93

☐ Statewide per capita impact indicator: \$1.39

☐ Countywide per capita impact: Caldwell County (\$31.84), Hays County (\$11.89), Travis County (\$44.30).

☐ Countywide per capita impact indicator: \$3.50

Appendix 7 – FEMA 4159-DR Individual Assistance Denial Letter

U.S. Department of Homeland Security
500 C Street, SW
Washington, DC 20472



FEMA

December 26, 2013

The Honorable Rick Perry
Governor of Texas
P.O. Box 12428
Austin, Texas 78711

Dear Governor Perry:

This is in response to your December 12, 2013, request for a major disaster declaration for the State of Texas due to damage resulting from severe storms and flooding during the period of October 30-31, 2013. You specifically requested Individual Assistance and Public Assistance for three counties and Hazard Mitigation statewide.

The December 20, 2013, major disaster declaration FEMA-4159-DR authorized Public Assistance for Caldwell, Hays, and Travis Counties and Hazard Mitigation statewide.

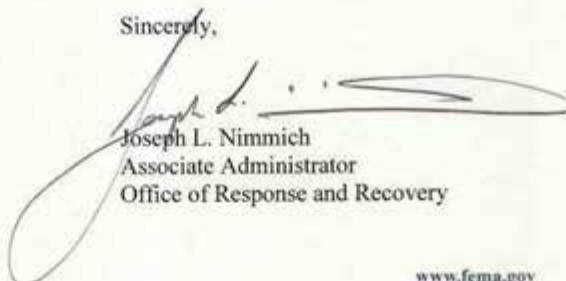
The damage to the infrastructure was significant in the areas designated for Public Assistance. However, based on our review of all of the information available, including the results of the joint federal, state, and local government Preliminary Damage Assessment, it has been determined that the damage to the dwellings from this event was not of such severity and magnitude to warrant the designation of Individual Assistance under FEMA-4159-DR. Therefore, your request for Individual Assistance for Caldwell, Hays, and Travis Counties is denied.

This denial may be appealed within 30 days after the date of this letter. Any appeal pursuant to 44 CFR § 206.46, along with additional information justifying the appeal, should be submitted to me through George A. Robinson, Regional Administrator, FEMA Region VI, located at:

800 North Loop 288
Denton, Texas 76209-3698

FEMA has notified the Small Business Administration (SBA) of your request for disaster loan assistance. As a means of expediting assistance to states affected by disasters, SBA will consider your request for disaster loan assistance under SBA authorities without regard to whether a Stafford Act declaration decision has been appealed.

Sincerely,



Joseph L. Nimmich
Associate Administrator
Office of Response and Recovery

www.fema.gov

Appendix 8 – FEMA 4159-DR Individual Assistance Appeal Denial Letter

U.S. Department of Homeland Security
500 C Street, SW
Washington, DC 20472



FEMA

FEB -5 2014

The Honorable Rick Perry
Governor of Texas
P.O. Box 12428
Austin, Texas 78711

Dear Governor Perry:

This is in response to your January 25, 2014, letter appealing the denial of Individual Assistance for Caldwell, Hays, and Travis Counties under major disaster declaration FEMA-4159-DR.

After thorough review and careful consideration of all of the information included in your initial request and appeal, we reaffirm our original finding that the damage to the dwellings from this event was not of such severity and magnitude to warrant the designation of Individual Assistance under FEMA-4159-DR. Therefore, your appeal for Individual Assistance for Caldwell, Hays, and Travis Counties is denied.

Sincerely,

Elizabeth A. Zimmerman
Deputy Associate Administrator
Office of Response and Recovery

www.fema.gov