City of Dallas

After-Action Flooding Analysis

Council Briefing
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Presentation Overview

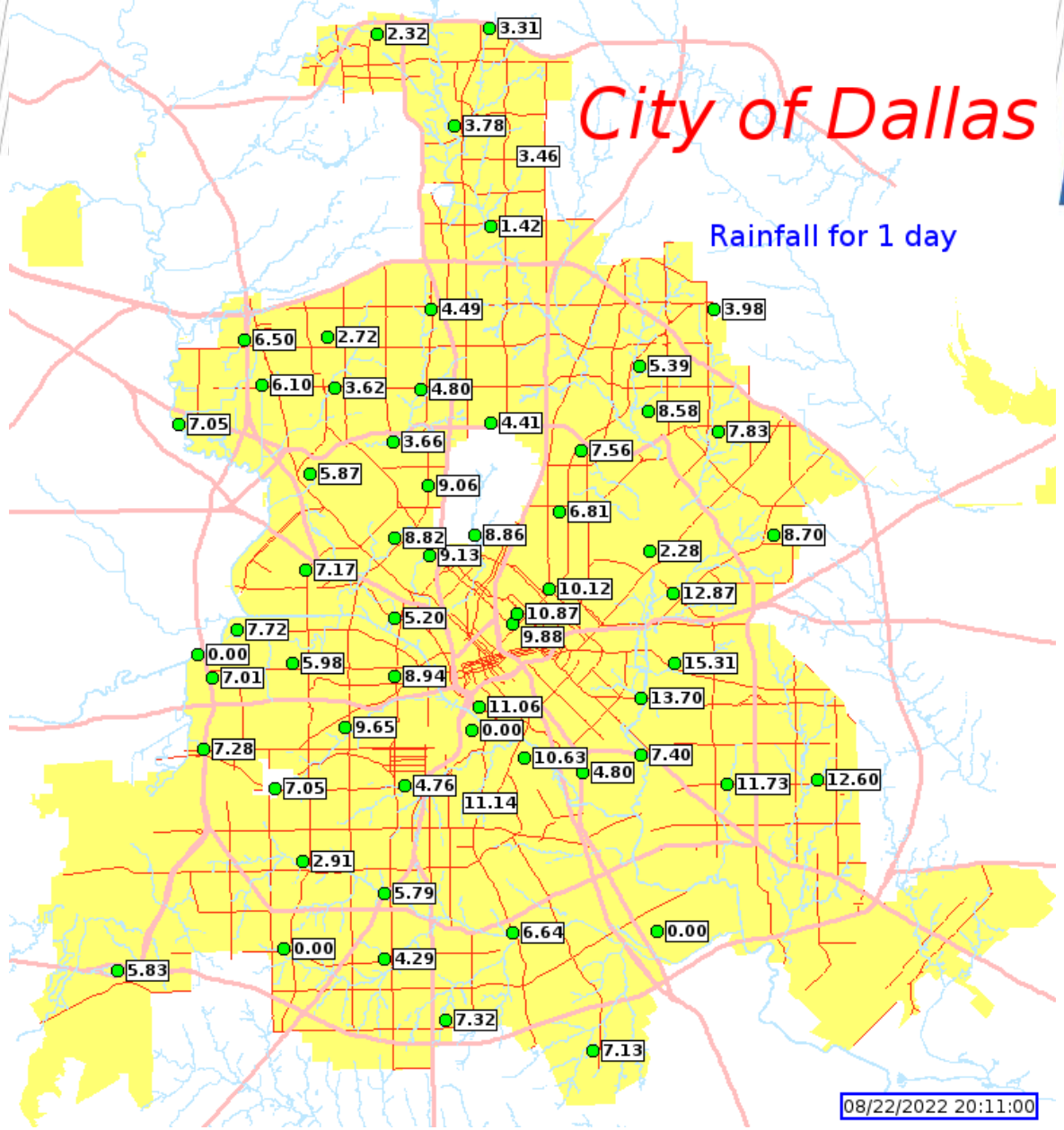
- Opening Remarks
- Purpose
- Situation Summary
- Timeline
- Introduction to Community Lifelines
- After-Action Review
- Next Steps

Purpose

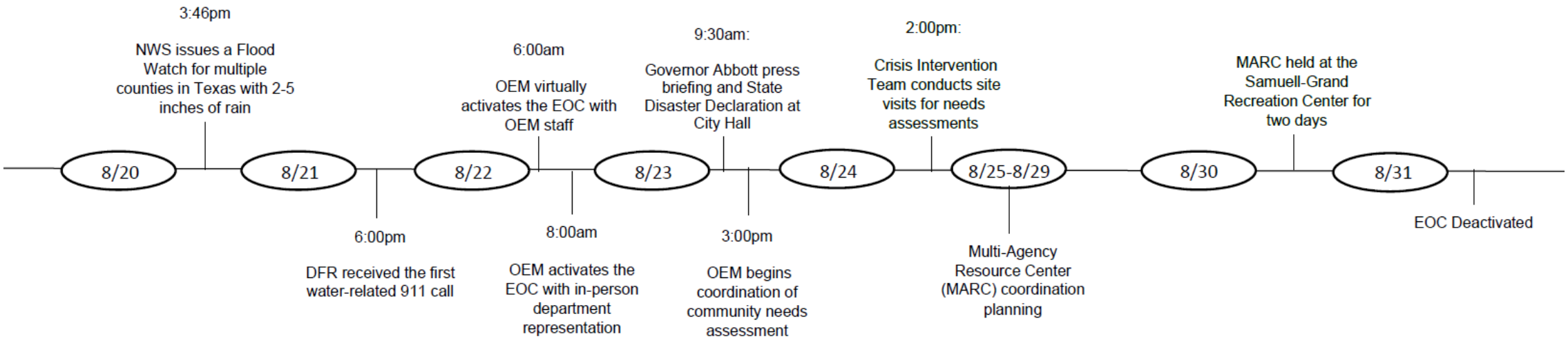
- Present the results of the after-action survey and after-action meeting
- Identify areas in which response could improve
- Identify best practices to sustain or enhance for the next response
- Provide an opportunity to answer questions and garner feedback

Situation Summary

The City of Dallas experienced historic rainfall, primarily during the overnight hours of August 21 and August 22, 2022, and broke the 1932 record to become the 2nd highest daily rain total. Some areas saw over 15 inches of rain.



Severe Weather and Flooding Timeline



Public Safety Response

- 1st water-related 911 call at 6:00pm Sunday, August 21st
- Last water-related 911 call at 8:00pm Monday, August 22nd
- 232 high water incident calls, 84 water-rescue incident calls (Boats used during 19 calls)
  - 4 patients transported to hospitals for injuries
- Swiftwater teams rescued 21 people and 10 dogs
- 11,485 total calls received in two-day period by DPD
  - Compared to the normal average of 9,800 calls in a two-day period
- 465 calls to DPD were holding due to Officers blocking off flooded roadways, conducting traffic control, and responding to high water calls
  - Members of specialty units (including Legal, Academy, SWAT and others) were brought in to respond to calls holding
- 28 DPD vehicles damaged due to flooding
- DFR reported 1 ladder truck, 3 engines, and 4 rescues damaged due to flooding

Response – Dallas Water Utilities and Public Works

- Over 450 service requests
  - Includes downed trees
  - 350 barricade requests to close off flooded roadways
  - Flooded Roadway Warning System was activated across the City
- Approximately 350 staff working around the clock

Introduction to Community Lifelines

FEMA has developed a construct for objectives-based response that prioritizes the rapid stabilization of Community Lifelines after a disaster.

Lifelines are the most fundamental services in the community that, when stabilized, enable all other aspects of society to function.

Safety and Security – Lifeline Overview

Key Departments:

- Office of Emergency Management (OEM)
- Dallas Police Department (DPD)
- Dallas Fire-Rescue (DFR)
- Dallas Water Utilities (DWU)
- Sanitation (SAN)
- Code Compliance (CCS)
- Building Services Department (BSD)

Lifeline Overview:

- DFR responded to 232 water-related calls between 6:00pm Sunday, August 21st and 8:00pm Monday, August 22nd.
- DPD patrol cars conducted blocking of flooded roadways and traffic control
- DFR swift water teams rescued 21 people and 10 dogs
- OEM staff virtually activated the EOC at 6:00am, in-person activation of the EOC occurred at 8:00am
- DWU called in 100+ personnel to assist with storm-related department impacts or needs

Food, Water, Shelter – Lifeline Overview

Key Departments:

- Office of Emergency Management (OEM)
- Housing (HOU)
- Office of Community Care (OCC)
- Office of Integrated Public Safety Solutions (OIPSS)
- American Red Cross (ARC)

Lifeline Overview:

- OEM coordinated recovery operations, including operation of a MARC, to provide residents with information and resources.
- OEM conducted site visits to impacted areas
- OEM met with federal, state, and local government partners to discuss public assistance and SBA assistance
- OCC participated in the MARC by providing a table for senior services and other resources
- The Crisis Intervention Team from OIPSS conducted site visits to gather information from impacted residents using an OEM-developed needs assessment survey
- ARC received calls for service, conducted damage assessments, and provided assistance where able

Energy – Lifeline Overview

Lifeline Overview:

- Primarily experienced localized power outages due to storm impacts

Key Partners:

- Oncor

Communications – Lifeline Overview

Key Departments:

- Communications, Outreach, & Marketing (COM)
- Information & Technology Services (ITS)
- 311
- Data Analytics and Business Intelligence (DBI)
- Office of Governmental Affairs (OGA)

Lifeline Overview:

- COM promoted flood response and recovery information on city website and city socials
- COM coordinated press release, press briefing, and media interviews as appropriate
- 311 received many calls for service during and after the storm

Transportation – Lifeline Overview

Key Departments:

- Public Works (PBW)
- Dallas Department of Transportation (DDOT)
- Equipment and Fleet Management (EFM)
- Dallas Rapid Area Transit (DART)

Lifeline Overview:

- PBW deployed barricades to flooded roadways
- DDOT worked on flashing or dark traffic signals to restore working signals
- EFM responded to city vehicle tow requests
- DART had no interruption of services

Practices to Sustain – Key Highlights

Department	Practices to Sustain
Dallas Fire Rescue	• Quickly responded to water-related calls.
Office of Emergency Management	• Activated the EOC in response to severe weather. • Coordinated recovery operations, activated and ran a Multi-Agency Resource Center (MARC), and created a needs assessment survey.
Dallas Police Department	• Quickly responded to water-related calls.
Dallas Water Utilities	• Flooded Roadway Warning System activated as designed.
Office of Integrated Public Safety Solutions	• Conducted site visits to gather information on impacted residents using the OEM-developed needs assessment survey.
Public Works	• Placed barriers around the city at flooded roadways.
311	• Successfully triaged and prioritized calls based on need.

Areas of Improvement/Corrective Actions – Key Highlights

Department	Areas of Improvement	Corrective Actions
Dallas Fire Rescue	• Unified Command was not established during the storm and EOC activation request was not made to OEM	• Provide additional training to DFR field and command staff on how and when to set up Unified Command and when to request EOC activation
Office of Emergency Management	• Most asked need from residents was direct financial assistance for home repairs, no avenue or program to meet that need	• Develop a city program or city-owned non-profit organization that provides direct financial assistance to residents impacted by disaster
Dallas Police Department	• Lack of barricades resulted in DPD officers being used to close off roads	• Better coordination and process development with OEM and PBW for barricade requests.
Dallas Water Utilities	• Residents were not engaged enough about available resources through FEMA FloodSmart Programs	• Develop an outreach program to residents about resources available through FEMA FloodSmart Programs
Public Works	• Dispatch issues with barricade requests and deployment.	• Develop a better system for dispatch for barricade deployment.
311	• 311 call center was minimally staffed during the storm which caused delayed wait times of 12 minutes	• 311 uses OEM notifications to determine if additional staff are needed. OEM will work on process to send out messages more often for that purpose based on the situation.

Disaster Recovery

- Long term and involves multiple stakeholders
- City's primary role is emergency response and recovery (debris removal/restoration of infrastructure etc.)
- OEM coordinates recovery process, resources, and assistance with NGO partners.
- Direct assistance is provided by NGOs, not the city, but the city is heavily involved in the recovery process.
- Multi-Agency Resource Center set up August 30th and August 31st to assist residents in finding recovery resources and assistance.

MARC Participants	
• American Red Cross	• Legal Aid of Northwest Texas
• Catholic Charities	• North Texas Food Bank
• Volunteers of America	• Texas Department of Insurance
• Texas Baptist Men	• Office of Community Care
• Buddhist Tzu Chi Foundation	• Community Emergency Response Team
• Minuteman Disaster Response	• Salvation Army

Federal Assistance Eligibility – Major Disaster

- Presidential Major Disaster Declaration, which activates Federal Assistance to Individuals and Households Program:
  1. State must issue a State Disaster Declaration.
     - Governor Abbott issued this on August 23, 2022.
     - The declaration covered 23 counties, including Dallas County.
  2. Uninsured home damages/losses in Dallas County must equal, at a minimum, $10.7 million.
  3. Furthermore, uninsured home damages/losses in all Texas counties covered by the State Disaster Declaration combined must equal, at a minimum, $47.5 million.

- Neither Dallas County or Texas have met the uninsured home damage/loss threshold to qualify for a Major Disaster Declaration from the federal government.

Federal Disaster Eligibility – SBA

- Small Business Administration (SBA) Disaster Declaration, which provides for long-term, low interest loans for impacted homeowners and businesses for recovery-related expenses:
  State must have, at a minimum, 25 homes impacted by the disaster classified as destroyed or having major damage.

- Dallas County and the State of Texas meet, and exceed, that threshold with approximately 75 homes classified as destroyed or having major damage in the state.

- Governor Abbott issued a request for a Disaster Declaration from the SBA on September 13, 2022.

Next Steps

- Complete full After-Action Report and Improvement Plan
- Update plans and procedures accordingly

Appendix 1: Safety and Security – After-Action Analysis

Department	Practices to Sustain
Dallas Fire Rescue	• Quickly responded to water-related calls • Availability and usage of swift water teams and boats
Office of Emergency Management	• Activated the EOC in response to severe weather
Dallas Police Department	• Quickly responded to water-related calls
Dallas Water Utilities	• Flooded Roadway Warning System activated as designed • Called in additional staff for department operational needs
Code Compliance	• Deployed roll-off refuse containers to impacted neighborhoods and serviced them daily • Proactive illegal dumping team made courtesy bulk trash pickups daily in affected communities to assist with debris removal • Partnered with Council Districts 2 and 14 to host community clean up and provided resources to assist residents with clean up
Building Services Department	• Responded to damaged city building reports and conducting damage assessments

Appendix 1 (Cont.): Safety and Security – After-Action Analysis

Department	Areas of Improvement	Corrective Actions
Dallas Fire Rescue	• Swift water teams were stretched thin • Available boats were stretched thin • No dispatcher was in the EOC • Unified Command was not established during the storm and EOC activation request was not made to OEM	• Train additional personnel on swift water operations • Purchase and supply additional boats • As a standard practice, when the EOC is activated, a DFR Dispatcher will be brought into the EOC • Provide additional training to DFR field and command staff on how and when to set up Unified Command and when to request EOC activation
Office of Emergency Management	• No weather briefings from NWS or TDEM • The EOC was not activated early enough • Challenge with getting relevant departmental personnel to respond to the EOC • Most asked need from residents was direct financial assistance for home repairs, no avenue or program to meet that need	• Be more proactive on weather situational awareness • Activate the EOC at the start of when a storm hints it could be bad • Improve internal and external communication capabilities and process for better messaging for EOC activation. Provide training to departmental staff on EOC operations • Develop a city program or city-owned non-profit organization that provides direct financial assistance to residents impacted by disaster
Dallas Water Utilities	• Residents were not engaged enough about available resources through FEMA FloodSmart Programs • Communication between OEM and DWU was not conducted ahead of storms	• Develop an outreach program to residents about resources available through FEMA FloodSmart Programs • Develop communication plan between DWU and OEM for severe weather and participate in tabletop exercises regarding rain events

Appendix 1 (Cont.): Safety and Security – After-Action Analysis

Department	Areas of Improvement	Corrective Actions
Code Compliance	• Challenge with internal and external communication and coordinating resources and staffing needs with affected parties. • Equipment operator staff need training on proper placement of roll-off refuse containers for resident use, potential monitoring, and bulk debris removal during extreme weather conditions.	• Be aware of all emergency management resources that are available in order to relay that information to our residents. • Provide training of proper roll-off refuse container placement, monitoring of roll-off boxes, and bulk debris removal during extreme weather conditions.
Dallas Police Department	• System for barricade deployment did not work as needed. • Officers were stationed at flooded roadways for hours waiting for barricades. • Unified Command was not established during the storm.	• Better coordination and process development with OEM and PBW for barricade requests. Could include having a DPD Dispatcher in the EOC to relay barricade requests to EOC personnel • Purchase and supply DPD with barricades that can be kept at Patrol Divisions for deployment when needed. • Provide training for DPD field and command staff on when to establish Unified Command, when to utilize the Incident Command System, and when to request EOC activation.
Building Services Department	• Contracted cleaning and repair contractor did not have enough resources to respond in a timely manner to conduct repairs to damaged city buildings. • Process to fill out pSTAT not clear and timeline for reporting damage/repair cost is unrealistic.	• Addition to master agreements that allows BSD to hire additional contractors for emergency building repairs. Examining all master agreements to see if additional departments could benefit from this. • OEM create guide for filling out pSTAT.

Appendix 2: Food, Water, Shelter – After-Action Analysis

Department	Practices to Sustain
Office of Emergency Management	• Conducted site visits to impacted areas • Coordinated recovery operations, activated and ran a Multi-Agency Resource Center (MARC), and created a needs assessment survey • Brought together NGO resources and activated a MARC • Utilizing ARC and Catholic Charities for case management • Gathered information on impacted residents using iSTAT data and a needs assessment survey • Sent Vesta Alerts to impacted residents, whose information was gathered using iSTAT data and the needs assessment, regarding the MARC
Housing	• Utilized staff to look up addresses and maps for programs that already existed in flooded areas
Office of Community Care	• Participated in the MARC by advertising city resources available to seniors and other residents • Provided information to residents on non-profits
Office of Integrated Public Safety Solutions	• Conducted site visits to gather information on impacted residents using the OEM-developed needs assessment survey
American Red Cross	• Conducted damage assessments and provided assistance as available and appropriate • Conducted regional storm operations preparation

Appendix 2 (Cont.): Food, Water, Shelter – After-Action Analysis

Department	Areas of Improvement	Corrective Actions
Office of Emergency Management	• Process for conducting needs assessment was not developed prior to this disaster. • iSTAT data was difficult to verify.	• Create a robust and detailed SOP for conducting needs assessments after disaster. • Develop process for how to verify iSTAT data.
Housing	• No directory of resources available to department.	• Develop a directory of available resources. • Create a home repair program.
Office of Community Care	• OCC resources available to residents in disaster were not immediately clear.	• Create a spreadsheet on resources available from OCC to residents impacted by disaster.
Office of Integrated Public Safety Solutions	• Crisis Intervention Team was not perfectly clear on process of conducting the needs assessment site visit.	• Train CIT on OEM needs assessment SOP.
American Red Cross	• ISTAT data was difficult to verify.	• Develop process for how to verify iSTAT data.

Appendix 3: Energy – After-Action Analysis

Department	Practices to Sustain	Areas of Improvement	Corrective Actions
Oncor	• Pre-positioned personnel, equipment and resources	• Timeline of Oncor crew arrival to downed powerlines was not clear to DFR	• Explain the process and timeline of Oncor crew response to DFR and OEM

Appendix 4: Transportation – After-Action Analysis

Department	Practices to Sustain	Areas of Improvement	Corrective Actions
Public Works	• Placed barriers around the city at flooded roadways	• Dispatch issues with barricade requests and deployment.	• Develop a better system for dispatch for barricade deployment.
Dallas Department of Transportation	• Worked to restore traffic signals	• Challenges with dispatch of staff process and closing of calls.	• Develop a better process for dispatching staff and closing calls.
Equipment and Fleet Management	• Successful towing response and service	• Multiple city vehicles were required to drive through standing water for city operations and the vehicles failed when taking on water. • EFM was unable to locate some vehicles that required towing in a timely manner. • A lack of rapid deploy trailers for disaster response, such as trailers carrying barricades.	• Design and purchase new vehicles with specifications to withstand driving through up to 5 feet of water. • Equip all city vehicles with GPS trackers and give EFM access to the GPS tracking system. • Equip rapid deploy trailers that can be deployed for disasters.

Appendix 5: Communications – After-Action Analysis

Department	Practices to Sustain	Areas of Improvement	Corrective Actions
Communications, Outreach & Marketing	• Promoted disaster response and recovery information on city website and city socials posted by OEM	• COM was unsure on specific department messaging on disaster response and recovery to promote and post to socials.	• Develop standard, departmental messaging and graphics that COM can post and promote in the early stages of response and recovery.
311	• Successfully triaged and prioritized calls based on need	• 311 call center was minimally staffed during the storm.	• 311 uses OEM notifications to determine if additional staff are needed. OEM will work on process to send out messages more often for that purpose based on the situation.
Data Analytics and Business Intelligence	• Pulled iSTAT data from spreadsheet provided by OEM	iSTAT data was not provided in a timely manner.	• iSTAT information should be readily available. OEM develop process for iSTAT data retrieval.
Office of Governmental Affairs	• Infographics were already prepared for previous storms, OGA updated with relevant flooding information	• Issue with infographic standardization.	• Standardize infographics for socials and media.