

Flood Response and Recovery

Kharley Smith
Emergency Management Coordinator
Hays County, TX



- Texas Hill Country
- 680 square miles
- Split Rural and Urban
- 12 Municipalities
 - 11 of those under the County OEM
- Population
 - 2000 – 97,500
 - 2014 – 185,000
 - 2030 – 406,000 (estimated)
- Home of Texas State University
- Advanced Law Enforcement Rapid Response Training Center (ALERRT)
- Emergency Services
 - 5 - Law Enforcement Agencies
 - 7 - Fire Departments
 - 3 - EMS Providers
 - 4 - 911 Centers

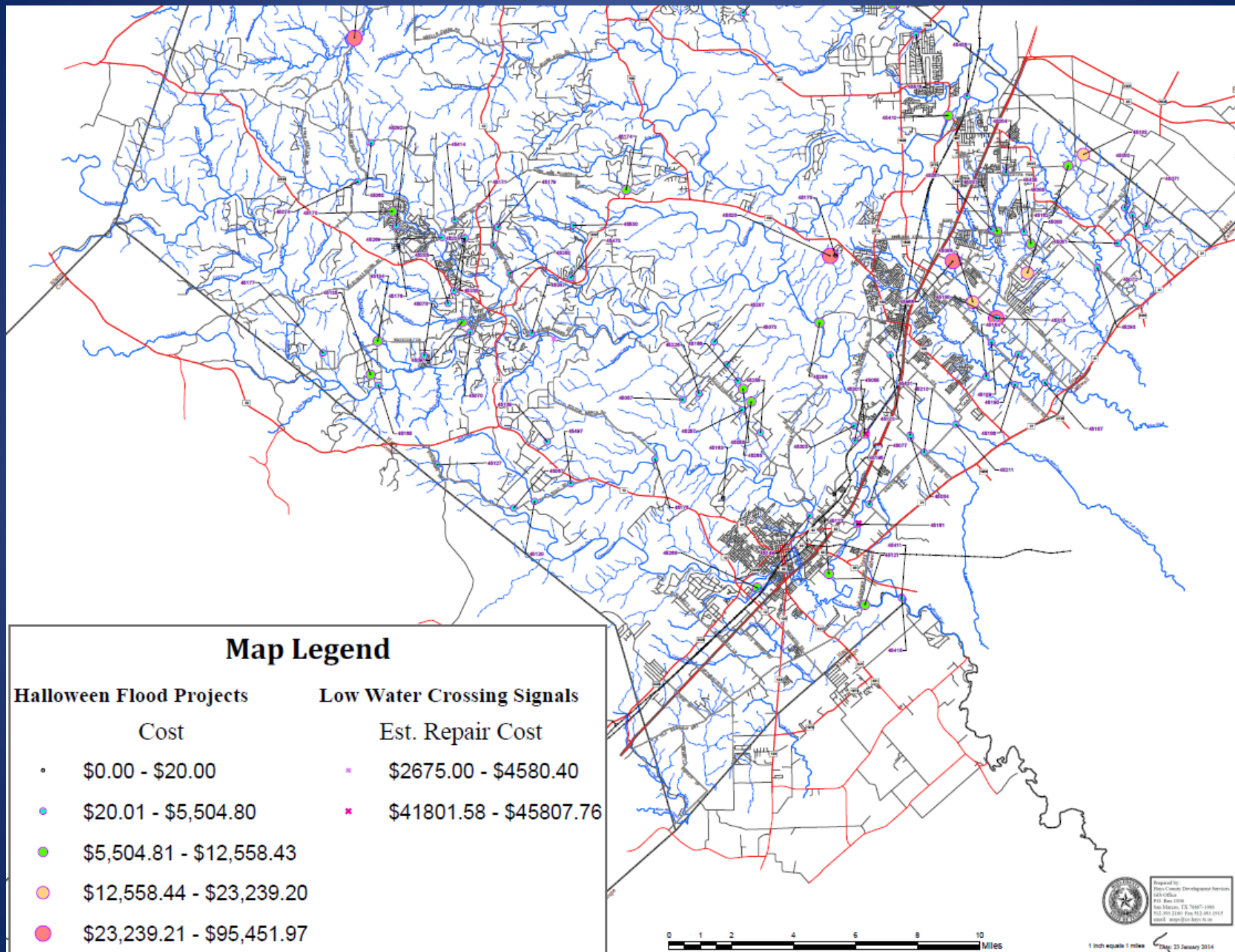


Hays County Federal Disasters

- All Saints Weekend Flood 2015 DR 4245
- Memorial Weekend Flood 2015 DR 4223
- Halloween Flood 2013 DR 4159
- Labor Day Fires 2011 DR 1624
- Hurricane Ike 2008 DR 1791
- Flooding 2007 DR 1709
- Hurricane Rita 2005 DR 1607
- Flooding 2002 DR 1425
- October Floods 1998 DR 1257

Halloween Flood 2013

- Emergency Departments responded to 94 calls for assistance overnight due to high water
- Received a Federal Declaration for Public Assistance only
 - \$570k in road projects alone
- Individual property loss
 - 27 major or destroyed
 - 62 minor or affected



Lake-PTZ - 13/10/31 08:38:25













FLOOD VICTIM RESOURCE EVENT

**TUESDAY, NOV. 5TH 4PM-9PM
BARTON JR. HIGH
4950 JACK C. HAYS TRL. KYLE**

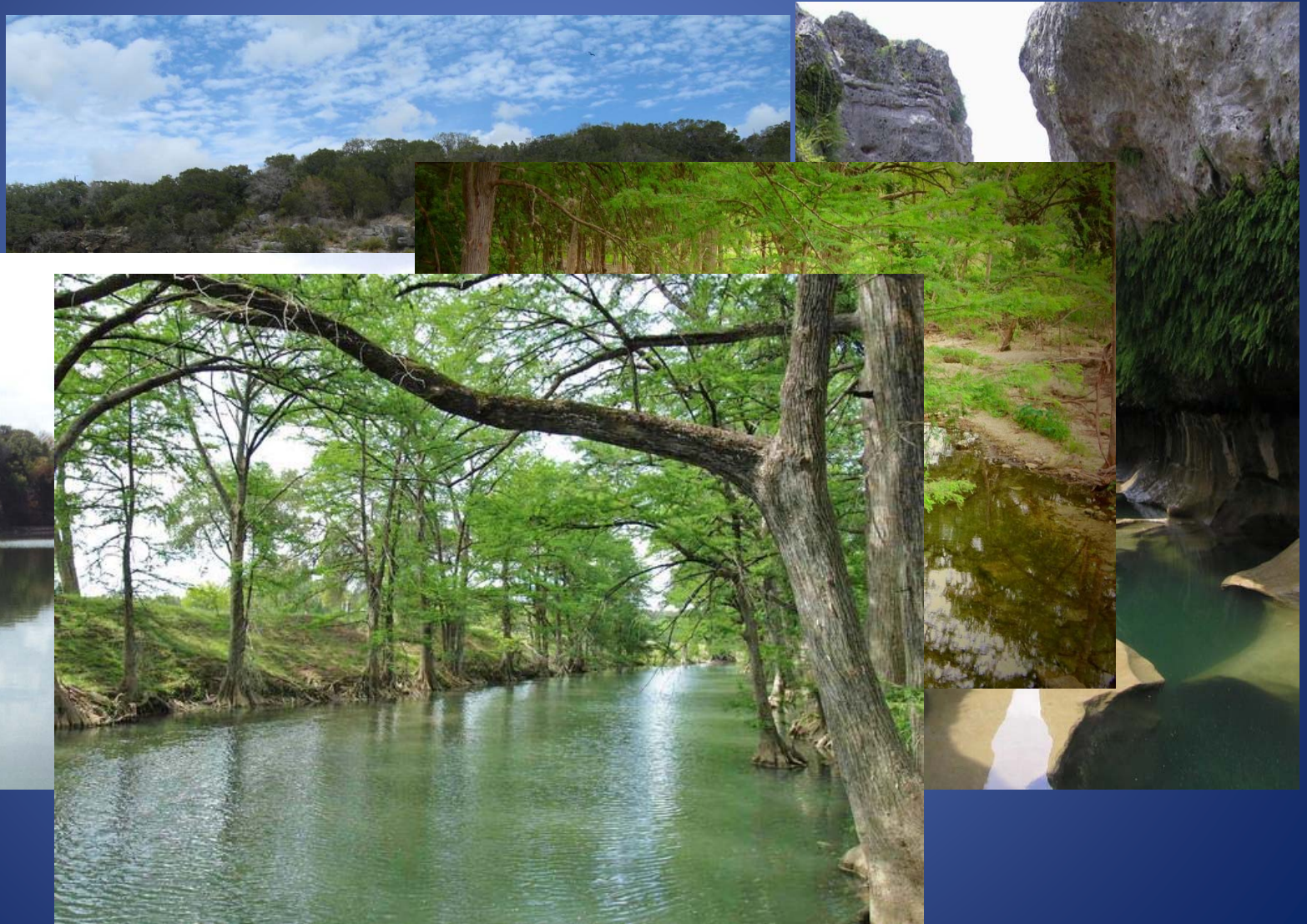
IF YOU HAVE BEEN AFFECTED BY THE RECENT FLOOD PLEASE
COME CONNECT WITH ORGANIZATIONS THAT ARE HERE TO
HELP AND SEE WHAT SERVICES ARE AVAILABLE TO YOU. A LIST
OF RESOURCES WILL BE AVAILABLE AT WWW.CO.HAYS.TX.US
AND AT COUNTY PRECINCT OFFICES AFTER THE EVENT.

Memorial Weekend Flood 2015

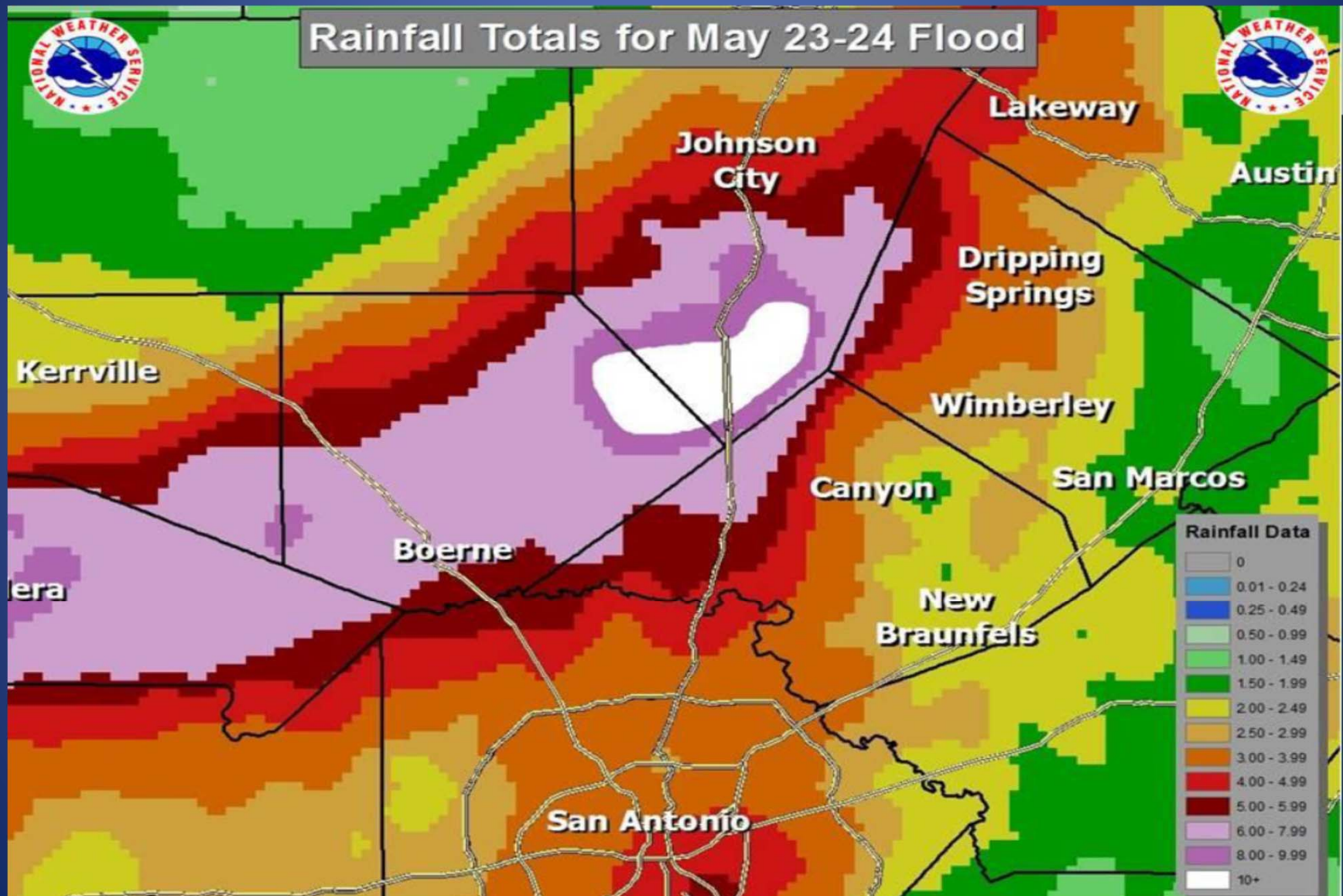
- Federal Disaster Declaration for Public Assistance and Individual Assistance
 - Public Assistance \$2,987,163+
 - Over \$2mil in debris management
 - \$650,000 in Emergency Protective Measures (labor)
 - Individual Assistance \$13,813,902
 - 1208 households sustaining major damage or destroyed

Memorial Weekend

Blanco River May 23, 2015



Then this happened...





1:03 AM CDT



FLASH FLOOD WARNING

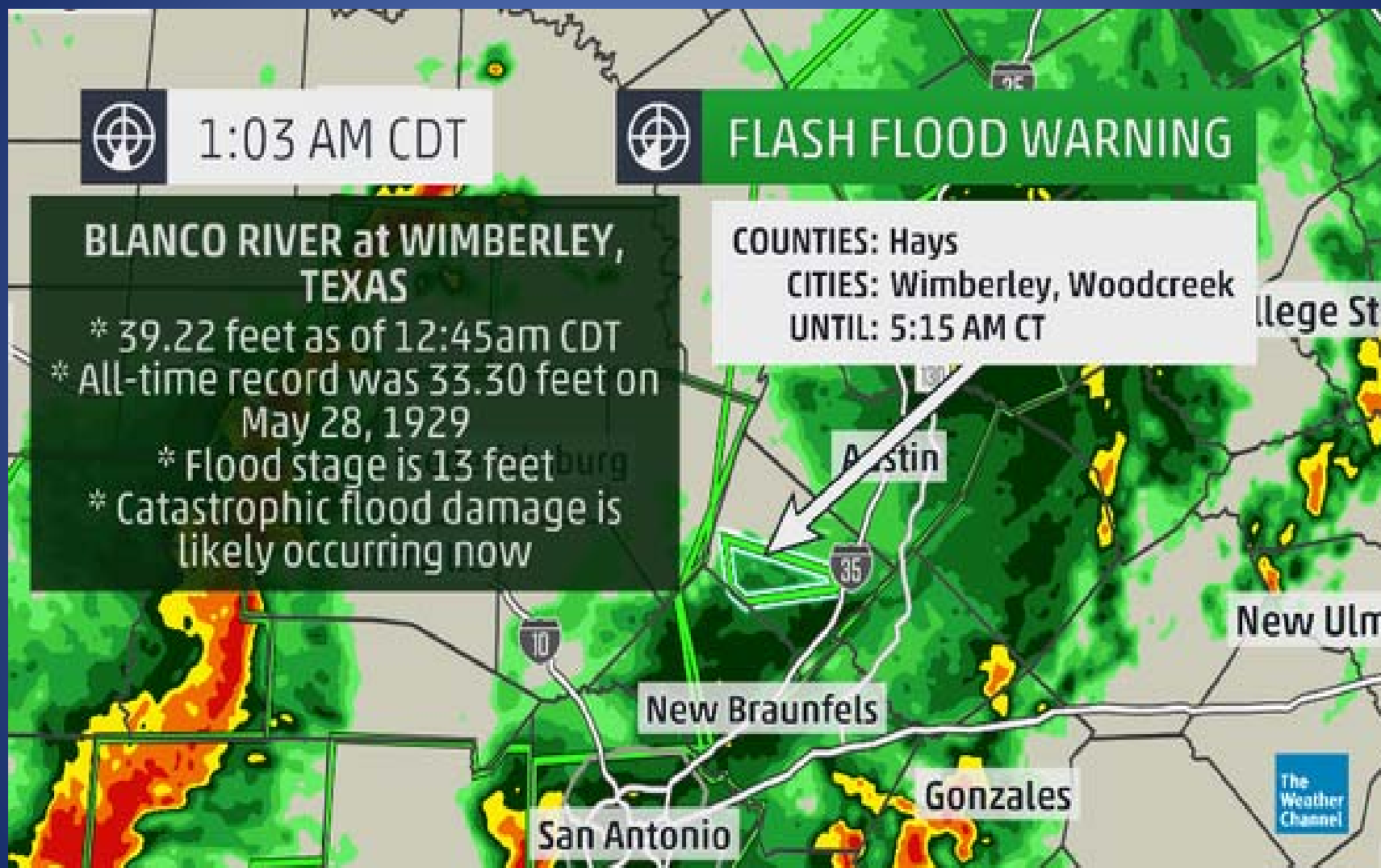
**BLANCO RIVER at WIMBERLEY,
TEXAS**

- * 39.22 feet as of 12:45am CDT
- * All-time record was 33.30 feet on May 28, 1929
- * Flood stage is 13 feet
- * Catastrophic flood damage is likely occurring now

COUNTIES: Hays

CITIES: Wimberley, Woodcreek

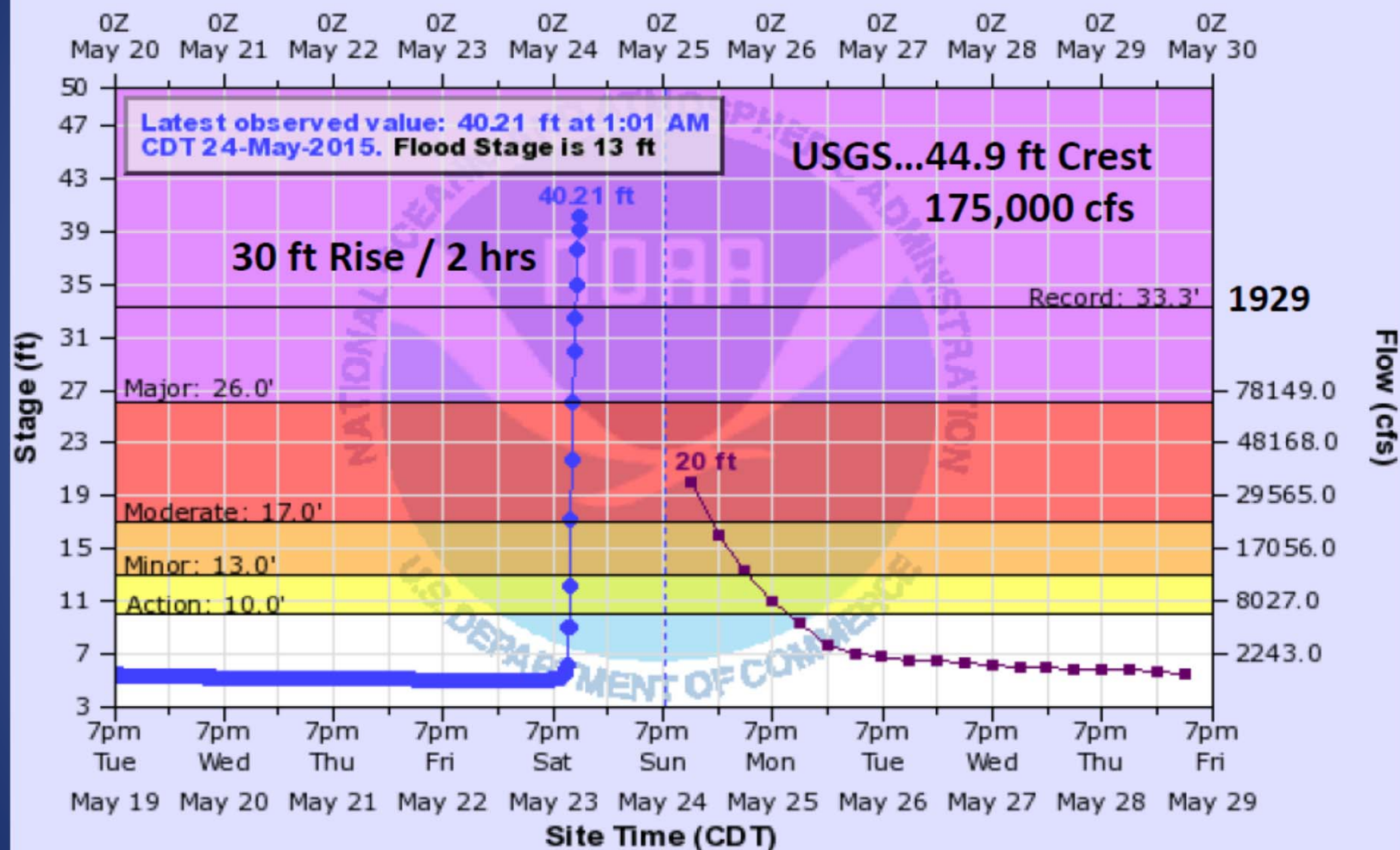
UNTIL: 5:15 AM CT



The
Weather
Channel

BLANCO RIVER AT WIMBERLEY

Universal Time (UTC)



WMBT2(plotting HGIRG) "Gage 0" Datum: 797.23'

Observations courtesy of US Geological Survey



Emergency Response

- 911 Center Processed over 3600 calls for help
- Emergency Operations Center Activated
- Real Time Communication with the NWS
- Utilization of Emergency Notification Systems
- Mutual Aid Agreements Activated
- Emergency Shelters Opened
- Hundreds of Residents Evacuated

Established Relationships are Essential!

Multi Agency Response

Texas Task Force I
Texas Task Force II
Texas A&M Forest Service
Texas Military Forces
Texas Boarder Patrol
Texas Division of Emergency Management
Texas Department of Public Safety
Texas Department of Transportation
Texas Department of Health and Human Services
Hays County Sheriff's Office
San Marcos Police Department
Texas State University Police Department
Kyle Police Department
Alamo Area SAR
Travis County SAR
Austin PD SAR
TEXSAR
Texas A&M Veterinary Team
San Marcos SMART Dive Team
San Marcos Fire Marshal's Office
North Hays Fire and Rescue
Wimberley Fire Department
San Marcos Fire Department
South Hays Fire Department
Kyle Fire Department
Buda Fire Department
Wimberley EMS
San Marcos Hays County EMS
Buda EMS
Austin/Travis County EMS



Hays County Blanco River May 24, 2015





Emergency Notifications

- Systems Utilized
 - First Call (Regional Notification System)
 - Amatra (County Notification System)
 - Code Red (City of Wimberley Notification System)
 - NWS (IPAWS & NOAA Weather Radio)
 - Outdoor Warning Sirens (City of San Marcos)
 - Local Media and Social Media
 - Door to Door Notifications by Local Responders
- Improvements
 - Collaboration
 - Consistency
 - Concise

10:58 pm Flood Warning

12:41 am Flood Warning

1:58 am Flood Warning

2:43 am Flood Warning

2:09 am Flood Warning

6:12 am Flood Warning

EAS
Emergency Alert System

19 Weather EAS Notification sent out overnight

Notification Fatigue

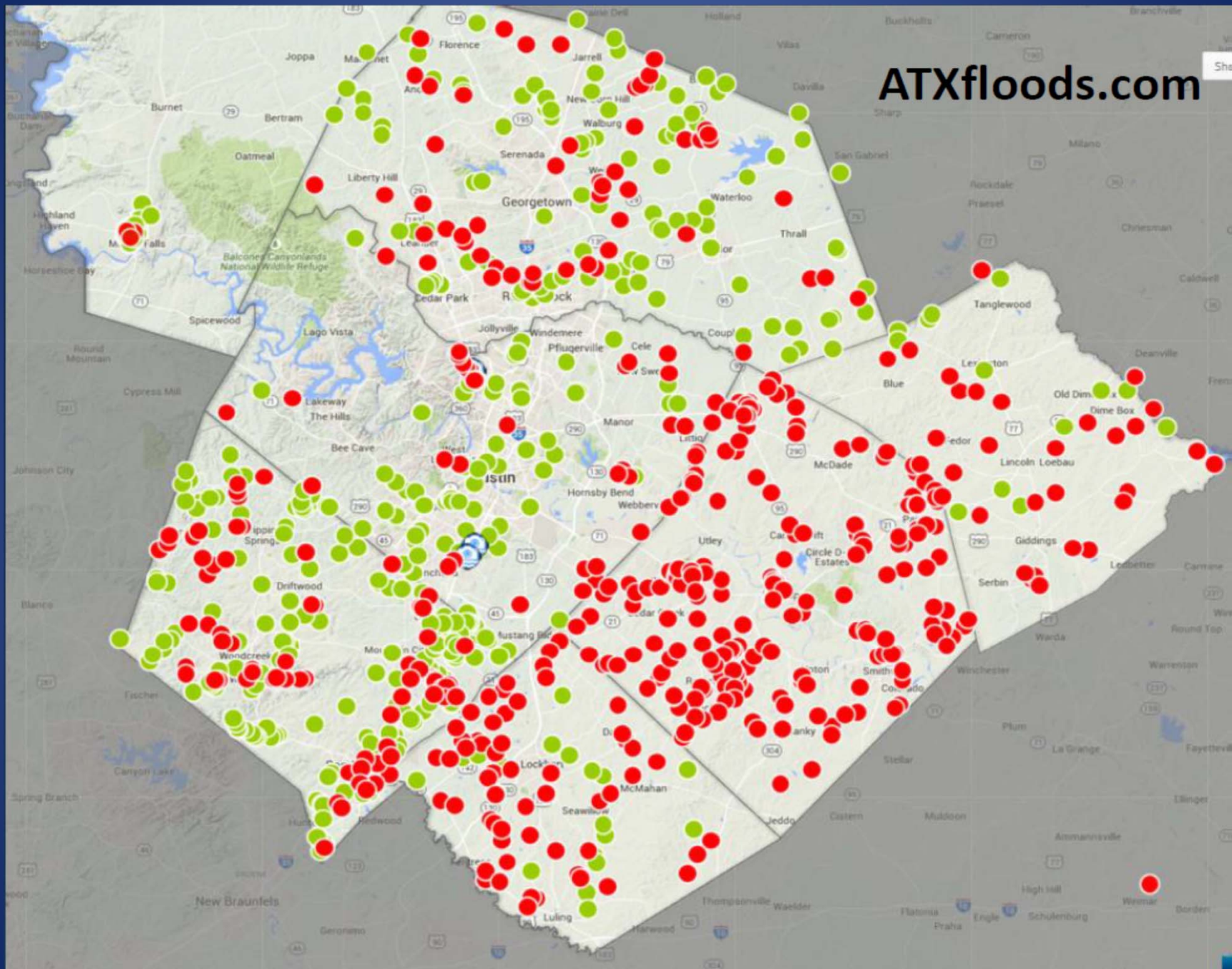
- In CAPCOG area National Weather Service issued
 - 9 Severe Thunderstorm Warnings
 - 10 Flash Flood Warnings
 - 12 Tornado Warnings
- 27 GIS911 notifications were sent on May 25:
 - Average duration of notifications was 1 hour 56 minutes
 - 95,707 telephone numbers were called
 - 60,326 (63.03%) calls were successful
- 106,410 total calls were initiated
 - 55.8% of the total calls were related to tornado activity
- Registered cell users received so many notifications we had to shut down the server in order to process 911 emergency notifications.

Emergency Operations

- Disasters affect all areas of County Government
- Trust the System
- Accurate Damage Assessments are Crucial
- Know what to ask for when offered help
- Transition from Response to Recovery is sooner than you think

Documentation Documentation Documentation!

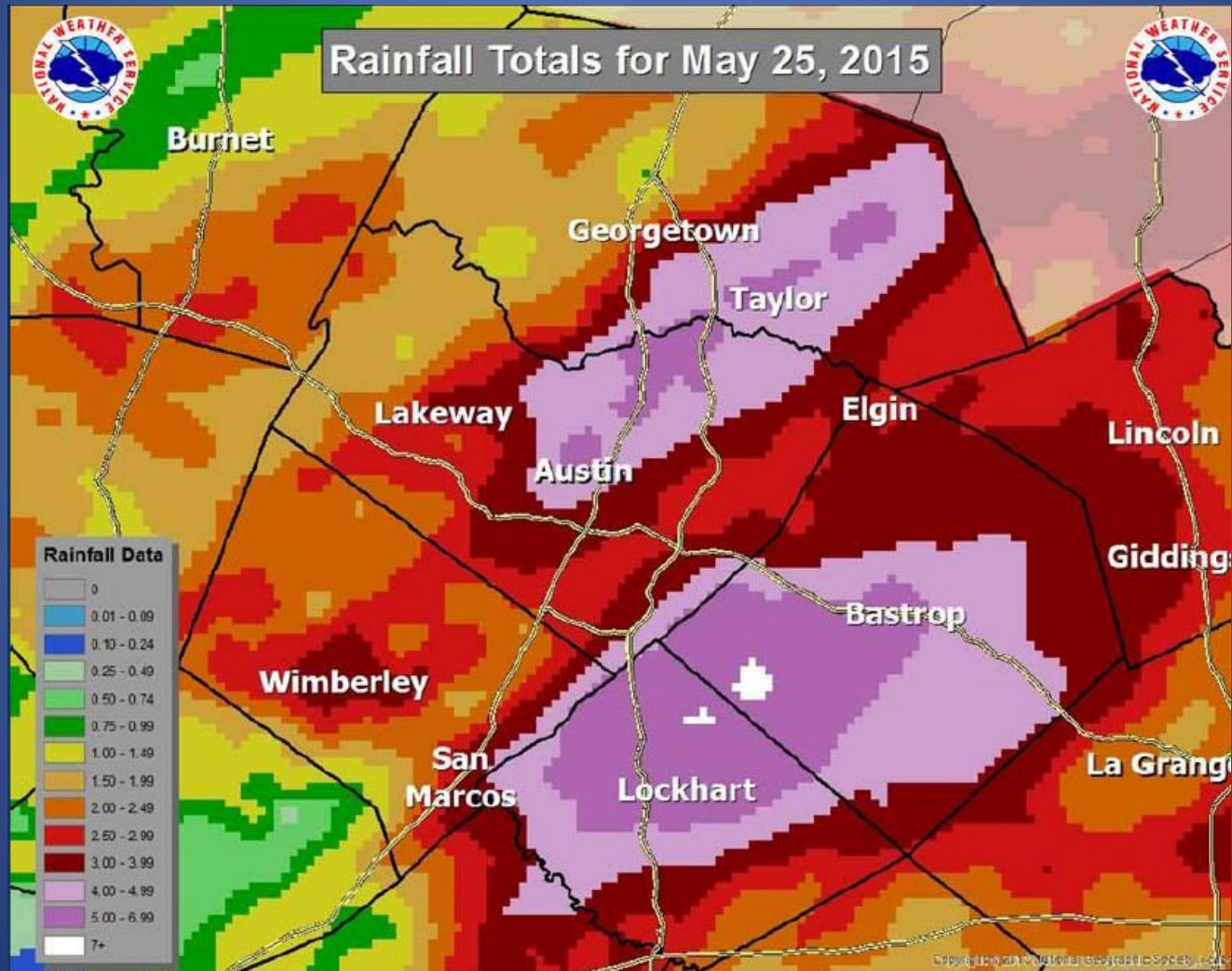
ATXfloods.com



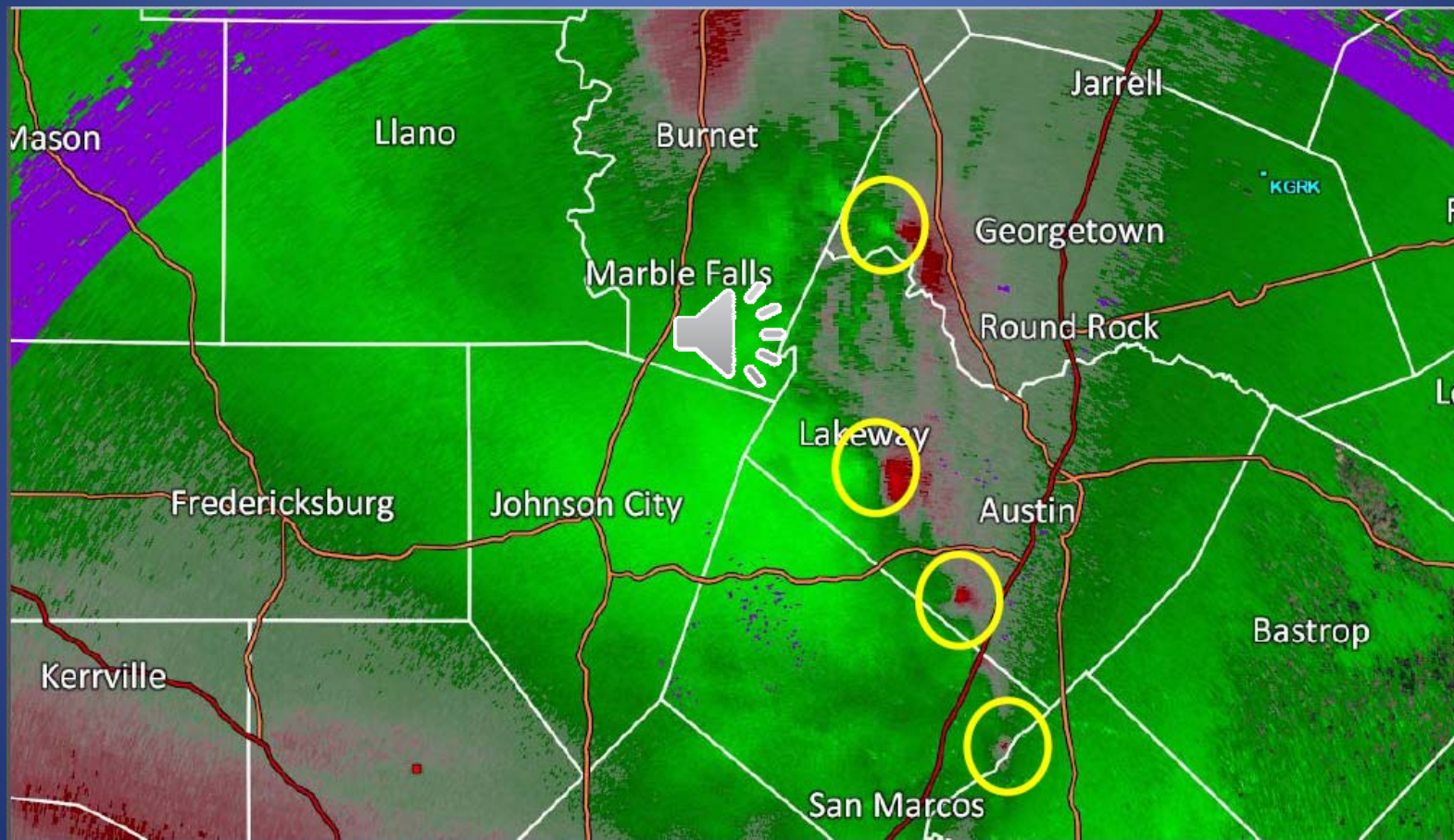




Aerial Flood May 25th



Multiple Tornados



Source NWS

Major Tank Battery Fire



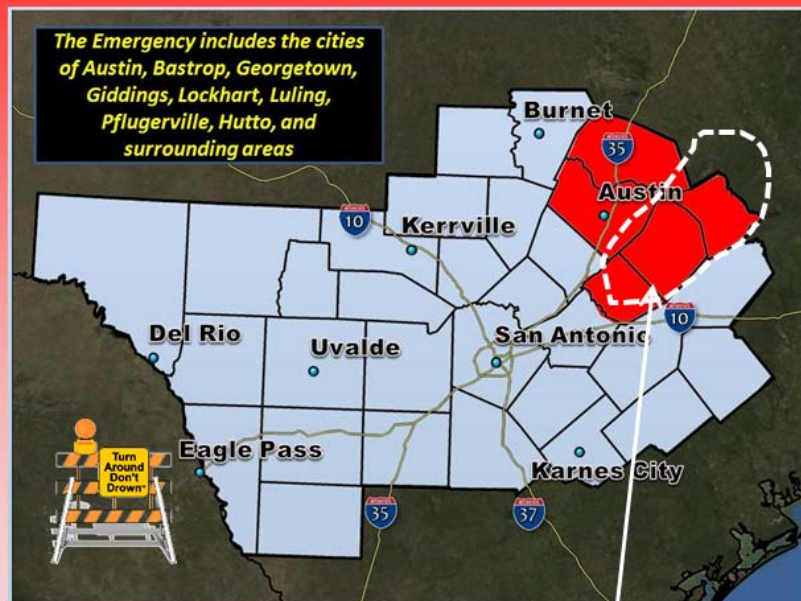
Major Tank Battery Fire



Historic – Flash Flood Emergency

Flash Flood Emergencies Continue

...For counties shaded in red until 12:15 AM Tuesday...



The area of most significant impact is located within the dashed white area.

- *A Flash Flood Emergency* means that widespread Flash Flooding is occurring resulting in significant or catastrophic impacts to life and property.
- Do NOT drive if it can be avoided. Multiple roadways are flooded and driving into flood waters are the number one flood related cause of fatalities.
- Rain has subsided in the Emergency area however the flood situation is still *extremely dangerous*.



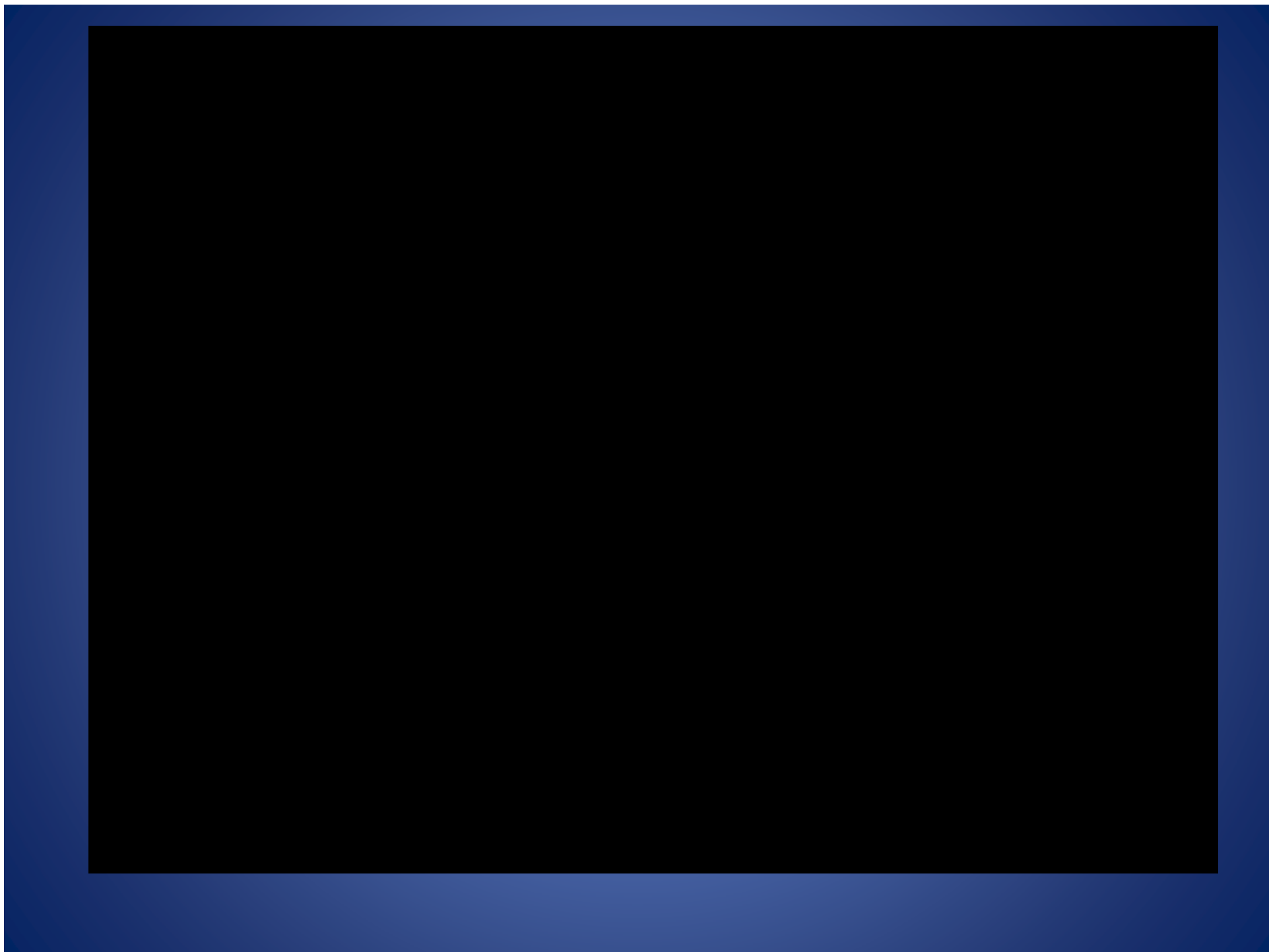
@NWSSanAntonio
weather.gov/ewx

Debris Management

- Initial Response
 - Public Health and Safety Concern
- Right of Way Debris Removal
- Private Property Debris Removal



Have An Existing and Approved Plan



Debris removal guidelines

In efforts to expedite the debris removal process, please follow these rules

Placing debris **near or on trees, poles or other structures** makes removal difficult. This includes fire hydrants and meters.

Debris separation

Please separate debris into the **six categories**, shown below.

Electronics

Television, computer, stereo, phone, DVD player

Large Appliances

Refrigerator, washer/dryer, air conditioner, stove, water heater, dishwasher

Hazardous waste

Oil, battery, pesticide, paint, cleaning supplies, compressed gas

Vegetative debris

Tree branches, leaves, logs, plants

Construction debris

Building materials, drywall, lumber, carpet, furniture, plumbing

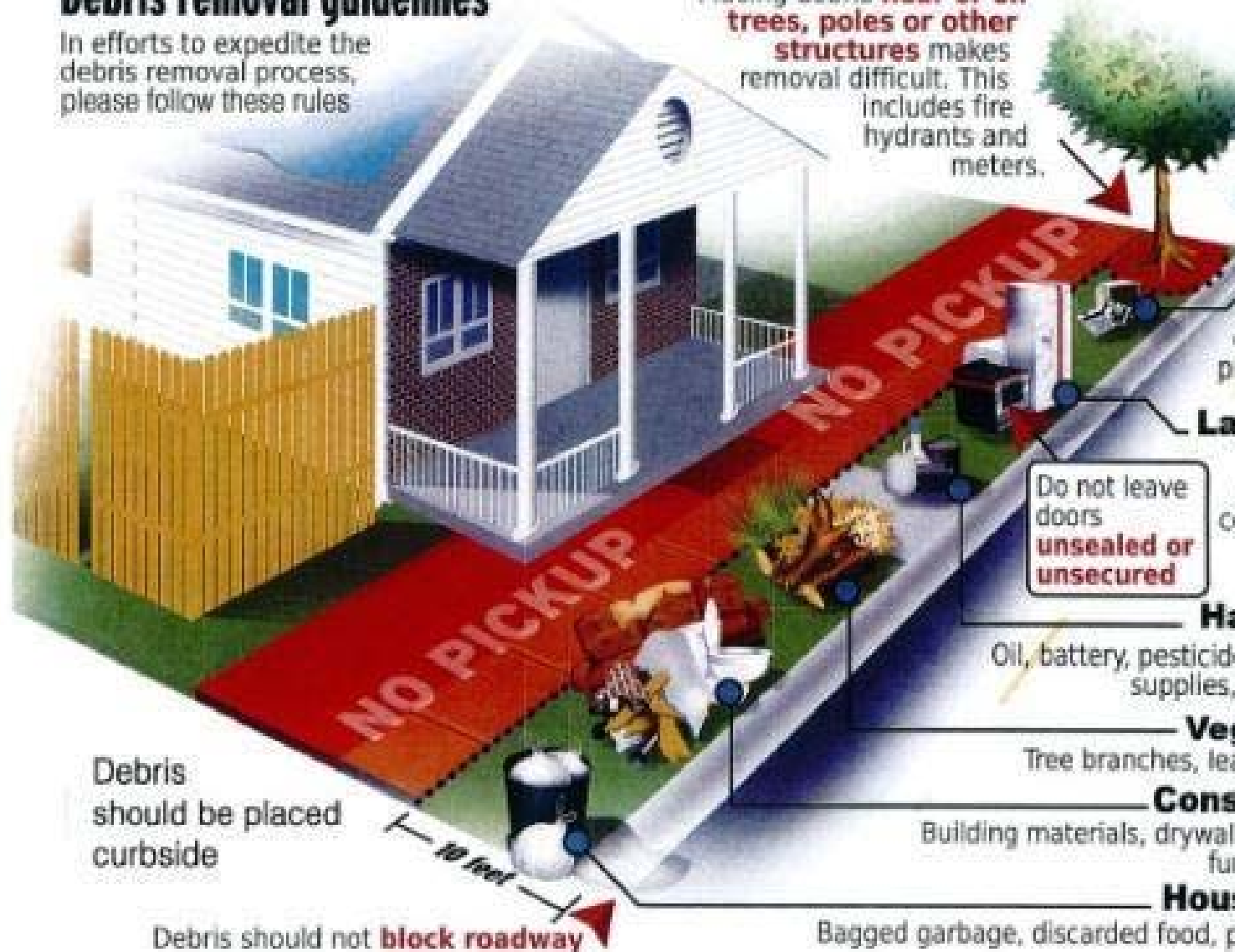
Household garbage

Bagged garbage, discarded food, paper, packaging.

Debris should be placed curbside

Debris should not **block roadway**

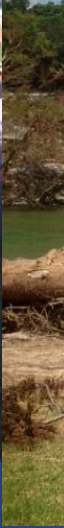
Do not leave doors **unsealed or unsecured**



Volunteer Management

- Establish a Volunteer Resource Center (VRC)
- Have a system to receive requests for volunteer assistance
- Register All Volunteers
 - Track Job Assignments and Hours
 - Liability Waivers
- Volunteer hours count toward your soft match

Documentation Documentation Documentation!



Donation Management

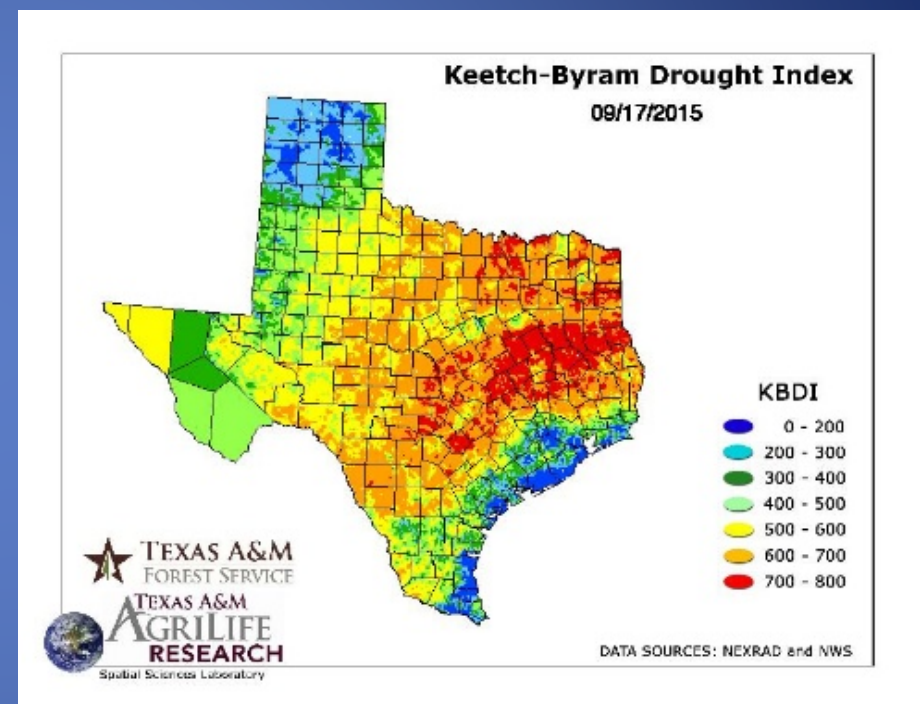
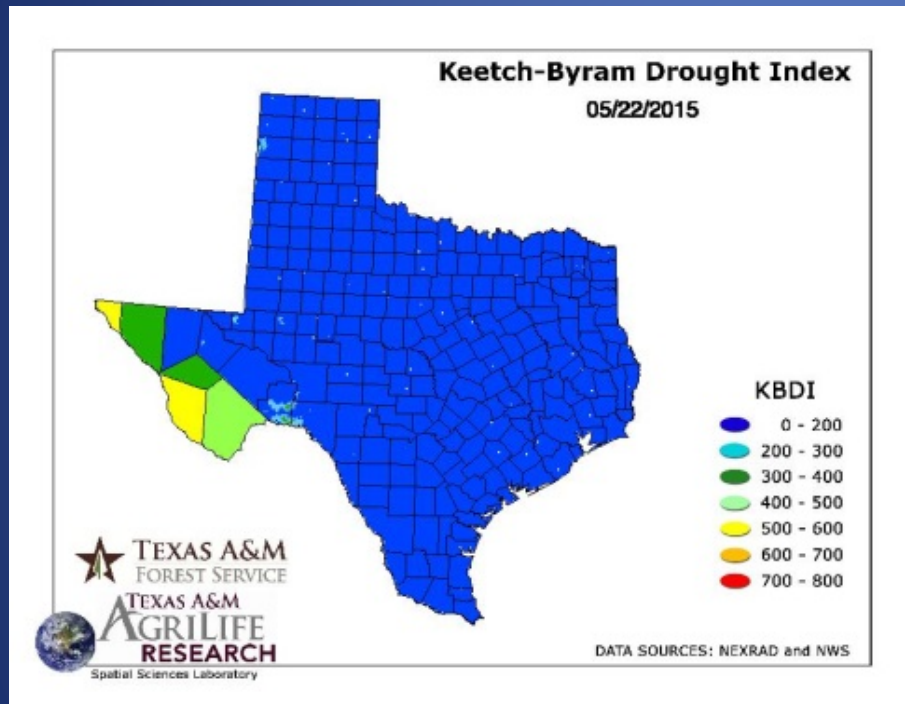
- The Disaster After the Disaster
- You cannot 'un-ask' for donations
- Set parameters and do not wavier
- Remember that receiving and distributing are two very different functions
- Have an established closing date
- Store additional donations to be turned over to long term recovery

Documentation Documentation Documentation!



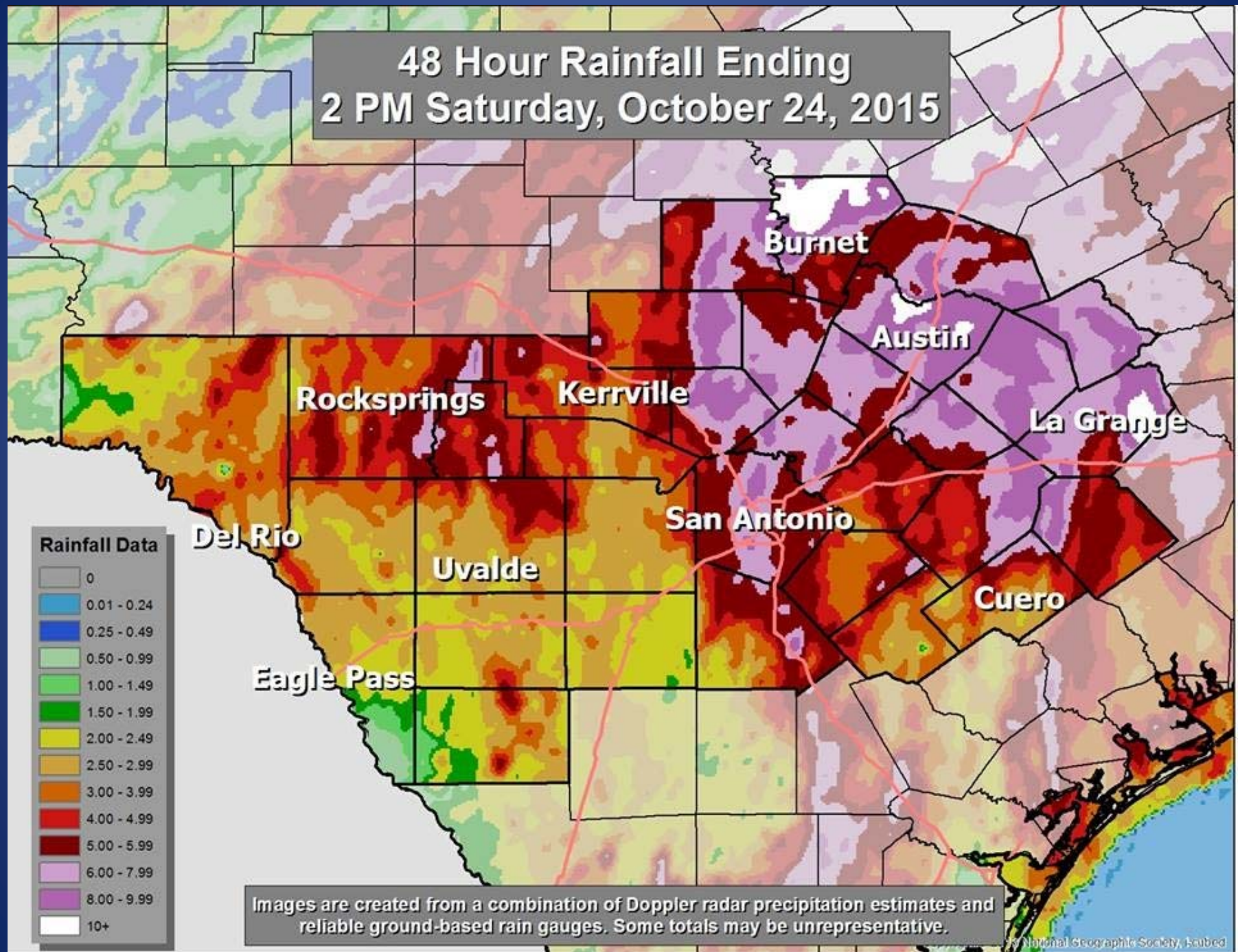


May - September



KBDI (Drought) Index

48 Hour Rainfall Ending 2 PM Saturday, October 24, 2015



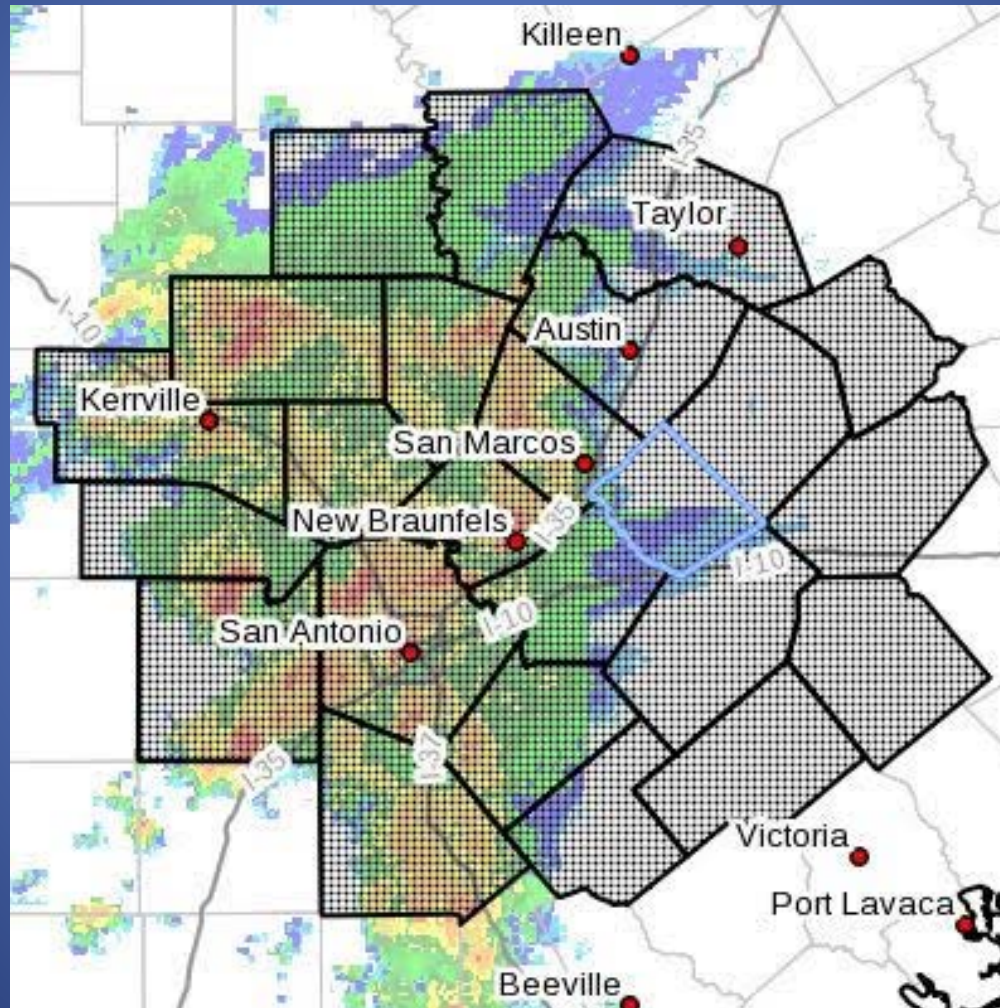


All Saints Weekend Flood 2015

- Federal Disaster Declaration for Public Assistance and Individual Assistance
 - Public Assistance \$11mil+
 - Estimated \$2mil in roadway damage
 - Individual Assistance \$3,807,854
 - 635 households sustained major damage or were destroyed

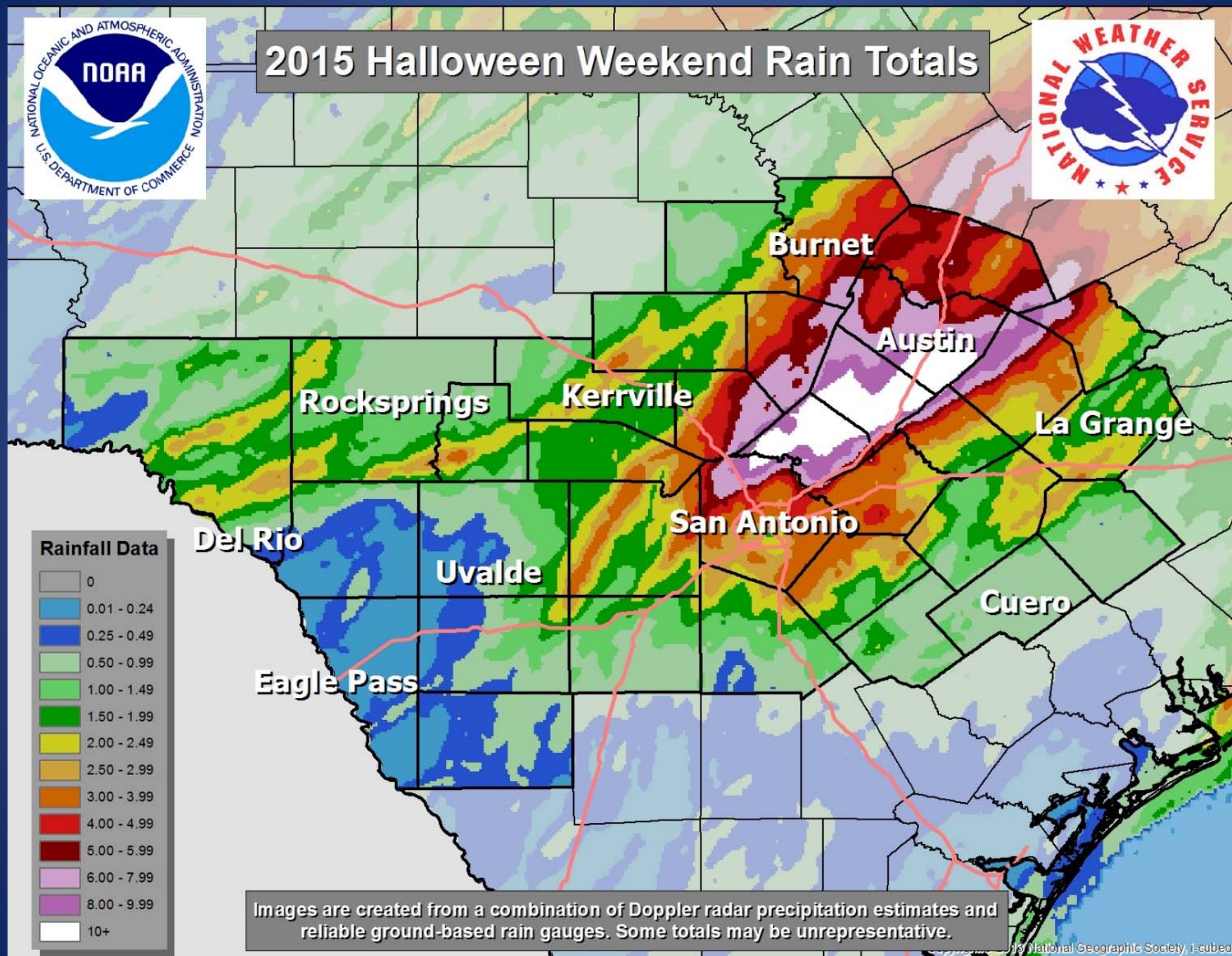
Flash Flood Watch

439 AM CDT FRI OCT 30 2015





2015 Halloween Weekend Rain Totals



Chronology 10/30/2015

- 4:39 Flash Flood Watch
- 6:07 AM Tornado Watch
- 7:25 Report of Tornado in Guadalupe County
- 7:30 Report of Tornado in Hays County
- 19 ½ inches of rain in less than 2 hours



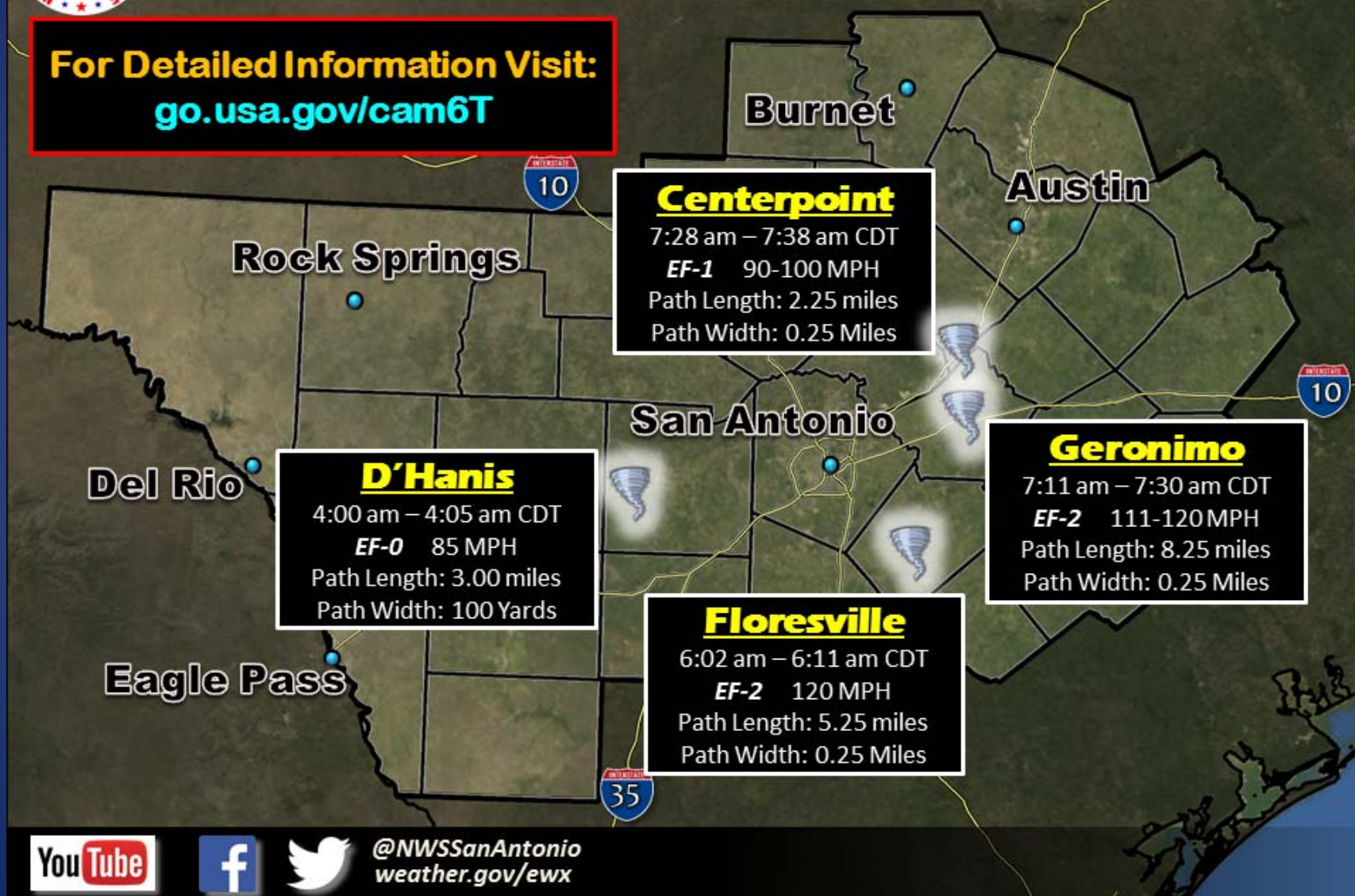


October 30th, 2015 Tornadoes

National Weather Service Austin / San Antonio

Created: 11/2/15 6:00pm

For Detailed Information Visit:
go.usa.gov/cam6T



@NWSSanAntonio
weather.gov/ewx

Derailment

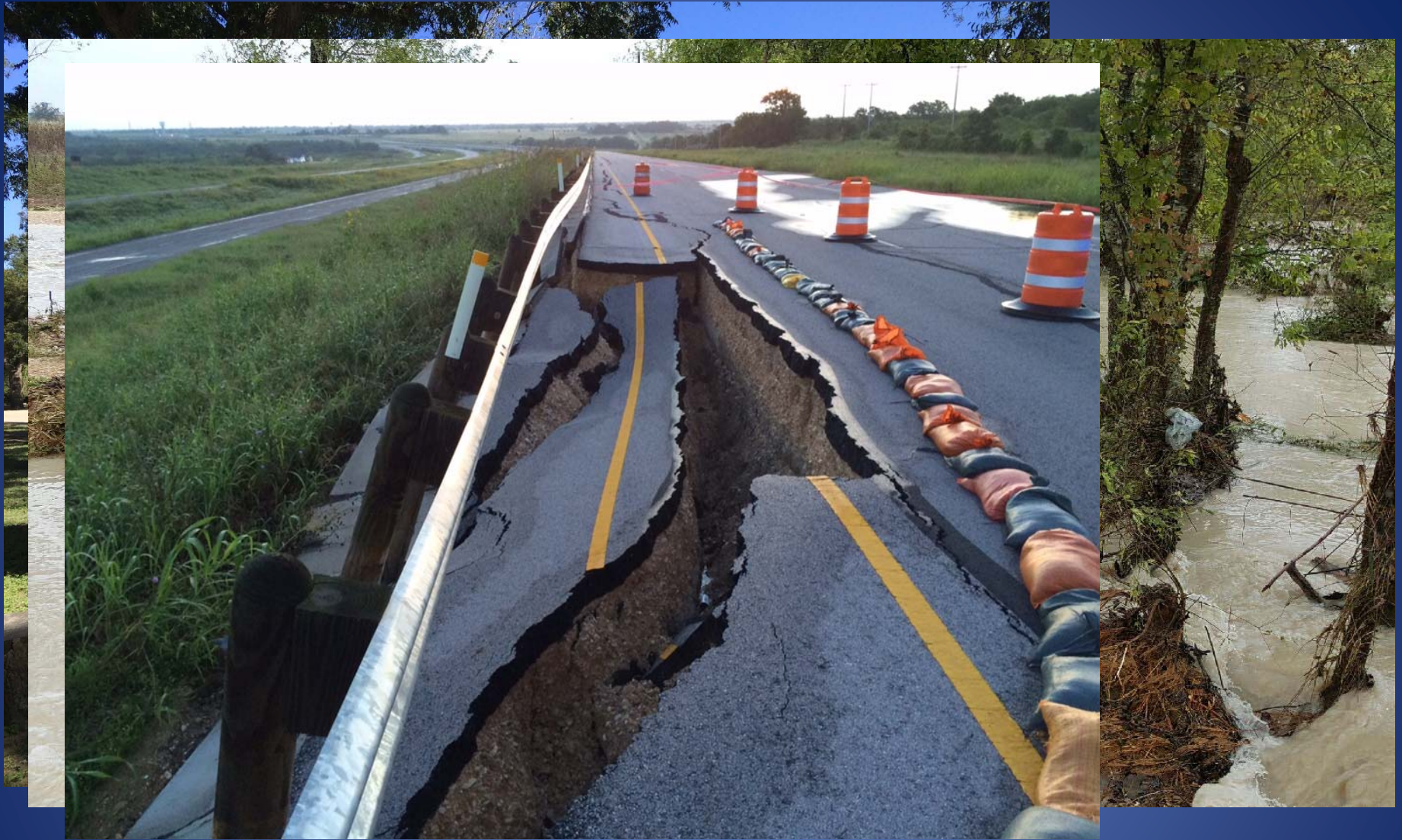














IMT and PIRT

The need for both in a coordinated response is evident!

IMT Response

- Instrumental in planning and documentation
- Coordinated Operational Response
- Facilitated communication between response agencies and locals
- Reinforced the structure and schedule

Post Incident Response Team (PIRT)

- Professionals with Emergency Management experience that can facilitate the Recovery Phase
- Recovery planning and implementation must start during the response phase
- Subject Matter Experts in everything from finance to donations to volunteers are needed to assist the Locals

Long Term Recovery

- Utilize your local organizations
 - Faith Based
 - Non Profit
 - Business
- Have Oversight but NOT Direct Involvement
 - this organization should function independent of County Government
- Expected to be in Long Term Recovery for years



BLANCO RIVER
Regional Recovery Team

- Collaboration of the EMCs from Blanco County, Hays County, Caldwell County, Guadalupe County, and the City of San Marcos
 - Selected Transitional Board Members
 - Identified the committees and/or functions that needed to be addressed
- Comprised of Faith Based Organizations, Non-Profits, local business, community members
- Established 501c3

Stay Strong. Stay Kind. Stay _(Texan) American

