

**Joint RRT-6 / RRT-7 2019 Spring Meeting**  
**27-28 March 2019**

PHMSA Training and Qualifications Center  
 3700 S MacArthur Blvd Suite B, Oklahoma City, OK 73179

**Day 1 (Morning) – Wednesday, March 27, 2019 -- Separate Meetings**



**(Twister Room)**

*Adobe Connect: <https://epawebconferencing.acms.com/region6rrtmeeting/>  
 Conference Call: 202-991-0477 – Conference ID: 5634699#*



**(Chisholm Trail Room)**

*Adobe Connect: <https://epawebconferencing.acms.com/r7-rrt/>  
 Conference Call: 202-991-0477 -- Conference ID: 7497715#*

8:30 – 8:45 AM	Welcome / Introductions	8:30 – 8:45 AM	Welcome / Introductions
8:45 – 9:00 AM	Review of RRT Priorities	8:45 – 9:00 AM	Review of RRT Priorities
9:00 – 9:45 AM	State Reports	9:00 – 9:45 AM	State Reports
9:45 – 10:00 AM	<b>Break – 15 minutes</b>		
10:00 – 10:45 AM	USCG FOSC Reports	10:00 – 10:20 AM	Sub-Area Report Outs
10:45 – 11:30 AM	Federal Agency Reports	10:20 – 10:45 AM	USCG FOSC Reports
		10:45 – 11:30 AM	Federal Agency Reports
11:30 – 1:00 PM	<b>LUNCH</b>		

**Move to Joint Meeting**

**RRT Joint Meeting Registration Page: <https://www.ttemiprod.com/rrt-r6-r7-spring2019/meeting/>**



**Joint RRT-6 / RRT-7 2019 Spring Meeting**  
27-28 March 2019

PHMSA Training and Qualifications Center  
3700 S MacArthur Blvd Suite B, Oklahoma City, OK 73179

**Day 1 (Afternoon) – Wednesday, March 27, 2019 --Joint Meeting**

**(Twister Room)**

Adobe Connect: <https://epawebconferencing.acms.com/region6rrtmeeting/>  
Conference Call: 202-991-0477 -- Conference ID: 5634699#

Time	Topic	Presenter / Facilitator
1:00 – 1:30 PM	Introductions / Administrative Announcements / Opening Statements	Bryant Smalley, EPA R6 / Ken Buchholz, EPA R7 / Michael Sams, USCG
1:30 – 1:45 PM	The Regions in a Nutshell	Paige Delgado, EPA R6
1:45 – 2:30 PM	New Madrid Seismic Zone	Jim Wilkinson, Director Central U.S. Earthquake Consortium (CUSEC)
2:30 – 2:45 PM	<b>Break – 15 minutes</b>	
2:45 – 3:45 PM	New Madrid – ESF-10 Activities	Heath Smith, EPA R7 / Paige Delgado, EPA R6
3:45 – 4:00 PM	<b>Break – 15 minutes</b>	
4:00 – 4:30 PM	Barge Transportation	USCG, Sector Upper Mississippi
4:30 – 5:00 PM	Emergency Management Assistance Compact (EMAC) / Interstate Emergency Response Support Plan (IERSP) Programs	Breanna Young / Brandy Leister, OEM
5:00 PM	<b>Wrap-Up / Closing Remarks – Co-Chairs</b>	
TBD	<b>NETWORKING SESSION</b>	

RRT Joint Meeting Registration Page: <https://www.ttemiprod.com/rrt-r6-r7-spring2019/meeting/>



# Joint RRT-6 / RRT-7 2019 Spring Meeting



27-28 March 2019

PHMSA Training and Qualifications Center  
3700 S MacArthur Blvd Suite B, Oklahoma City, OK 73179

## Day 2 – Thursday, March 28, 2019 -- Joint Meeting

(Twister Room)

Adobe Connect: <https://epawebconferencing.acms.com/region6rrtmeeting/>  
Conference Call: 202-991-0477 -- Conference ID: 5634699#

8:30 – 8:45 AM	Introductions / Administrative Announcements / Opening Statements	Bryant Smalley, EPA R6 / Ken Buchholz, EPA R7 / Michael Sams, USCG
8:45 – 9:30 AM	Transportation Mapping for Local Officials	Tom Bergman, ODEQ
9:30 – 10:00 AM	Transportation Community Awareness and Emergency Response (TRANSCAER)	Monty Elder, State TRANSCAER Coordinator
10:00 – 10:15 AM	<b>Break – 15 minutes</b>	
10:15 – 11:00 AM	Cushing, OK Pipeline / Terminal Preparedness Programs	Katy Mays, Enbridge / Chris Pixler, Cushing Fire Department
11:00 – 11:30 AM	Pipeline Accident Investigations – Lessons Learned	Chris Ruhl, DOT/PHMSA
11:30 – 1:00 PM	<b>Lunch – 1.5 hours</b>	
1:00 – 1:30 PM	Transportation Rail Incident Preparedness and Response (TRIPR) Program	Heath Smith, EPA R7
1:30 – 2:00 PM	Pipeline Safety Awareness Programs	Randy Duncan, PARADIGM
2:00 – 2:30 PM	ITC Tank Fire	Paige Delgado / Ronnie Crossland, EPA R6
2:30 – 2:45 PM	<b>Break – 15 minutes</b>	
2:45 – 4:45 PM	Tabletop Exercise (Train Derailment)	Eric Nold, EPA R7
4:45 – 5:00 PM	Wrap-Up / Closing Remarks	Bryant Smalley, EPA / Ken Buchholz, EPA / Michael Sams, USCG
5:00 PM	<b>Adjourn</b>	
<b>Day 3 – Friday, March 29, 2019</b>		
9:30 – 11:00 AM	Tour of Enbridge Terminal, Cushing, OK	On your own (logistics provided separately)

RRT Joint Meeting Registration Page: <https://www.ttemiprod.com/rrt-r6-r7-spring2019/meeting/>

# State Report Outs



## RRT-6 Spring 2019 Meeting

# Louisiana



PRIMARY	LDEQ	Jeff	Dauzat	<a href="mailto:jeff.dauzat@la.gov">jeff.dauzat@la.gov</a>
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PRIMARY	LSP	John	Porter	<a href="mailto:john.porter@la.gov">john.porter@la.gov</a>
ALTERNATE	LSP	Gene	Dunegan	gene.dunegan@la.gov



# Executive Summary

Louisiana

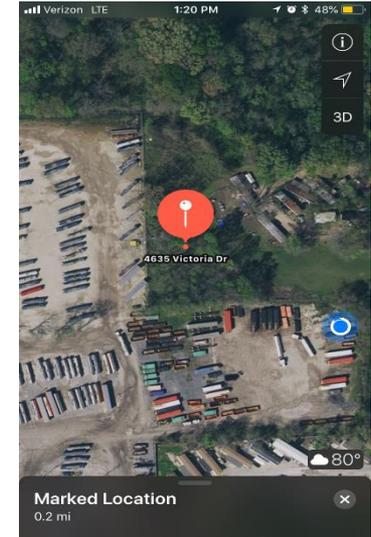
<b>Challenges-</b>	Retaining experienced personnel (Retirement and loss to Industry)
<b>Best Practices-</b>	Continued cooperation with Federal, State, and Local partners when responding to incidents in an effort to keep all key stakeholders and the public informed.



# East Baton Rouge Oil Spill

Louisiana

<b>Date:</b>	3/14/19
<b>Type and amount of product spilled:</b>	9000 Gallon slop oil spill
<b>Cause of spill:</b>	Believed that a disgruntled employee opened the valve on the tank
<b>Key operational activities:</b>	Vac trucks removing product while water is used to flush the area, pads, and soft boom
<b>Agencies Involved:</b>	LDEQ, LOSCO, EPA by means of a contractor, LDWF, and LSP Hazmat
<b>Major lessons learned:</b>	Was a relatively large spill in a heavily populated area



*Incident Location*



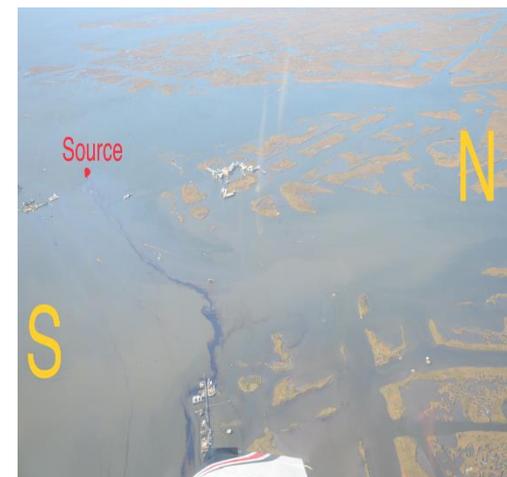
*Photo*



# Rattlesnake Bayou Spill

Louisiana

<b>Date:</b>	<b>12/9/18</b>
<b>Type and amount of product spilled:</b>	Well Blowout in Lake Washington discharged 221 Barrels of Oil
<b>Cause of spill:</b>	Failure of a 3 inch bull plug (successfully plugged on 12/16/18)
<b>Key operational activities:</b>	Strategically placing hard boom and Marco skimmers to catch as much oil as possible. Large SCAT project that went on for several weeks.
<b>Agencies Involved:</b>	LDEQ, LOSCO, USCG, LDWF, and NOAA
<b>Major lessons learned:</b>	Although over 30000 ft. of shoreline was impacted, 13000 ft. of boom deployed, and at least 180 people worked on this spill there were no reportable injuries throughout the cleanup.





# LOOP Brine Release

Louisiana

<b>Date:</b>	2/12/19
<b>Type and amount of product spilled:</b>	Brine release from a 42 inch line (amount unknown at this time, thousands of barrels of recovered brine solution)
<b>Cause of spill:</b>	Unsure if line corroded or if it was a mechanical failure, pipe was isolated till repairs could be made
<b>Key operational activities:</b>	Large pumps removing brine from the bottom of the canals
<b>Agencies Involved:</b>	LDEQ
<b>Major lessons learned:</b>	Large spill that from the surface showed very little evidence of a spill other than a few fish showed up dead in one of the dead end canals



Photo



# Metrics/Trends/Challenges

Louisiana

11/1/18 – 3/14/19

Non-Emergency Notifications	788
Emergency Notifications	367
Complaints	909



# Accomplishments

## Louisiana

### Training

Description	Dates
Air Monitoring for Local/State Responders	Multiple

### Exercises/Workshops

Description	Dates
Nuclear Power Plant Exercises	Multiple

### Fed/State/Local planning and coordination efforts

Description	Dates
State Emergency Operations Plan Updates	Multiple
LDEQ Catastrophic Event and Natural Disaster Response Plan and Parish Resource Book Update	Multiple



# Outlook

## Louisiana

### Training

Description	Dates
Air Monitoring Training for Local/State Responders (JESTC)	Multiple
LDEQ Internal Responder Training	Multiple

### Exercises/Workshops

Description	Dates
Nuclear Power Plant Exercises	Multiple
Louisiana Emergency Management Conference (LEMC)	May 13-16, 2019

### Fed/State/Local planning and coordination efforts

Description	Dates
Parish LEPC Meetings	Multiple
State Emergency Operations Plan Updates	Multiple
LDEQ Catastrophic Event and Natural Disaster Response Plan and Parish Resource Book Update	Multiple

# State Report Outs



**RRT-6 Spring 2019 Meeting**

03 27 2019

# Louisiana



PRIMARY	LDEQ	Jeff	Dauzat	jeff.dauzat@la.gov
ALTERNATE	LDEQ	Daniel	Lambert	daniel.lambert@la.gov
ALTERNATE	LDEQ	Jerry	Lang	jerry.lang@la.gov
ALTERNATE	LDEQ	Ji	Wiley	ji.wiley@la.gov
PRIMARY	GOHSEP	Chris	Guilbeaux	Christopher.Guilbeaux@LA.GOV
PRIMARY	LSUHSC	Jimmy	Guidry	jguidry@la.gov
ALTERNATE	LSUHSC	Luanne	White	lawhite@tulane.edu
<b>PRIMARY</b>	<b>LOSCO</b>	<b>Marty</b>	<b>Chabert</b>	<a href="mailto:marty.chabert@la.gov">marty.chabert@la.gov</a>
<b>ALTERNATE</b>	<b>LOSCO</b>	<b>Karolien</b>	<b>Debusschere</b>	<a href="mailto:Karolien.Debusschere@la.gov">Karolien.Debusschere@la.gov</a>
PRIMARY	LPCC	Mark	Ryan	mryan@lsuhsc.edu
PRIMARY	LSP	John	Porter	john.porter@la.gov
ALTERNATE	LSP	Gene	Dunegan	gene.dunegan@la.gov



# Executive Summary

Louisiana

<b>Challenges-</b>	LOSCCO continues to add staff.
<b>Best Practices-</b>	Stakeholder engagement. Training next generation.



# Rattlesnake Bayou

Louisiana

<b>Date:</b>	12/09/2018
<b>Type and amount of product spilled:</b>	~220 barrels of crude oil and natural gas condensate
<b>Cause of spill:</b>	Cracked casing on wellhead
<b>Key operational activities:</b>	Unified command established; SCAT teams daily; drone operations and overflights; boom around source for containment; wildlife rehab
<b>Agencies Involved:</b>	LOSCO, LDEQ, LDWF, LDNR, USCG, NOAA
<b>Major lessons learned:</b>	Drone flights proved useful in monitoring spill response actions and locating oil throughout marshes



*Incident Location*



*Photo*



# Bethany Longstreet CP

Louisiana

<b>Date:</b>	12/21/2018
<b>Type and amount of product spilled:</b>	~380 barrels of crude oil-saltwater mix; natural gas condensate
<b>Cause of spill:</b>	Overflow of multiple storage tanks
<b>Key operational activities:</b>	Constructions of weir dams; vacuum trucks; air monitoring; hard and soft boom
<b>Agencies Involved:</b>	LOSCO, LDEQ, LDWF, USEPA
<b>Major lessons learned:</b>	It is hard to locate cleanup crews to work during the Holiday season. Indigo Minerals had to get a crew from Oklahoma for this incident.



*Incident Location*



*Photo*



# Mantle Oil and Gas

Louisiana

<b>Date:</b>	02/15/2019
<b>Type and amount of product spilled:</b>	~15 barrels of crude oil; 100 barrels of saltwater
<b>Cause of spill:</b>	Failed gasket on a heater treater
<b>Key operational activities:</b>	Hard and soft boom to keep oil from moving farther down the ditch; drum skimmers and vacuum trucks for collection
<b>Agencies Involved:</b>	LOSCO, LDEQ, LDNR
<b>Major lessons learned:</b>	Drone photography able to show extent of oil/saltwater spray



*Incident Location*



*Photo*



# NRDA Settlements

Louisiana

- The Breton Island NRDA case was settled by State and Federal Trustees for \$8,723,395 in restoration funds and Trustee costs.



# Metrics/Trends/Challenges

Louisiana

## Reporting trends

Time Period	Total oil related reports
Calendar Year 2016	1,438
Calendar Year 2017	1,580
Calendar Year 2018	1,405
01/01/2019-03/20/2019	347



# Laws/Regulations/Policies

Louisiana

- RCP Appendices
- ESF-10 Appendix to State's EOP



# Accomplishments

## Louisiana

### Training

Description	Dates
HAZMAT	10/29/18-11/2/18
Science of Oil Spills	11/28/18-11/30/18

### Fed/State/Local planning and coordination efforts

Description	Dates
Statewide Geographic Response Strategies Executive Steering Committee	10/31/18
Southeast Louisiana Area Committee Meeting	11/13/18
Clean Gulf	11/13/18-11/15/18
Southcentral Louisiana Area Committee Meeting	12/7/18
South Louisiana Wetlands Discovery Center	2/6/19
BTNEP Management Meeting	2/7/19
Southeast Louisiana Area Committee Meeting	3/14/19



# Accomplishments

## Louisiana

### Exercises/Workshops

Description	Dates
LOOP Drill Planning Meeting	12/18/18
Oil Spill Preparedness and Response Workshop: Tradeoff Decisions in the Gulf of Mexico	2/4/19
Chevron drill planning	2/13/19
Sea Grant Birds and Oil Spill Seminar	2/28/19
GOHSEP/FEMA Region 6 2019 Hurricane Table Top Exercise/Rehearsal of Concept Drill	3/20/19



# Outlook

## Louisiana

### Training

Description	Dates
Hazwoper Refresher	Various

### Exercises/Workshops

Description	Dates
ExxonMobil Pipeline Drill	5/2/19
Chevron Drill (Chevron Drill-RRT Call)	5/20/19-5/24/19 5/6/19

### Fed/State/Local planning and coordination efforts

Description	Dates
Southwest Louisiana Area Committee Meeting	4/16/19
Louisiana Statewide Area Committee Meeting	6/5/19
Southeast Louisiana Area Committee Meeting	7/17/19
BTNEP Management Conference Meeting	8/1/19

# State Report Outs



## RRT-6 Spring 2019 Meeting

26 Mar 2019

# New Mexico



PRIMARY	NMED	Stephen	Connolly	Stephen.Connolly@state.nm.us
ALTERNATE	NMED	John	Kieling	john.kieling@state.nm.us
ALTERNATE	NMED	Janine	Kraemer	janine.kraemer@state.nm.us
PRIMARY	NMHD			
PRIMARY	NMDHSEM	Julie	Jolly	henry.jolly@state.nm.us
ALTERNATE	NMDHSEM	Brian	Simeone	brian.simeone@state.nm.us



# Personnel Changes

New Mexico

Agency	Role	Incoming Name	Outgoing Name
NMDHSEM	Cabinet Secretary	Jackie White	M. Jay Mitchell
NMDHSEM	Preparedness Bureau Chief	Wendy Blackwell	Susan Walker



# Incident Name

New Mexico

<b>Date:</b>	December 13, 2019
<b>Type and amount of product spilled:</b>	294,000 Gallons of Gasoline
<b>Cause of spill:</b>	Ruptured Pipe Near Anthony, New Mexico
<b>Key operational activities:</b>	Recovered 239,400 gallons and the rest soaked into the ground. Applied a type of foam sealant — Rusmar AC-900 Series.
<b>Agencies Involved:</b>	Chamberino Fire Department, New Mexico Gas Company, Kinder Morgan
<b>Major lessons learned:</b>	Following an inspection of the burst pipeline, the agency issued a "notice of proposed safety order" on Dec. 28. While a more in-depth report is in the works, preliminary findings showed that a protective coating had separated from the pipe, which may have allowed corrosion.



*Incident Location*



*Photo*



# Laws/Regulations/Policies

New Mexico

- NM Hazardous Materials Emergency Response Plan (HMER)
  - Updated in Dec 2018
  - Updated policy for State Police response
  - New list of Typed State Hazmat Teams including Phone numbers
  - Re-termed definition of a Large and Small Spill
    - Added clarity for first responder's



# Accomplishments

## New Mexico

### Training

Description	Dates

### Exercises/Workshops

Description	Dates

### Fed/State/Local planning and coordination efforts

Description	Dates
Updated Dec 2018 HMER Plan	Dec 2018



# Outlook

## New Mexico

### Training

Description	Dates
CAMEO	June 4- 7 2019

### Exercises/Workshops

Description	Dates
State Wide LEPC Work Shops	May / June / July

### Fed/State/Local planning and coordination efforts

Description	Dates
NM Homeland and Security Conference	Aug 2019

# State Report Outs



## RRT-6 Spring 2019 Meeting

March 27-28, 2019

# Oklahoma



PRIMARY	OEM	Bonnie	McKelvey	bonnie.mckelvey@oem.ok.gov
PRIMARY	ODEQ	Jennifer	Handley	jennifer.handley@deq.ok.gov
ALTERNATE	ODEQ	Loree	Boyanton	loree.boyanton@deq.ok.gov
ALTERNATE	ODEQ	Clifton	Hoyle	clifton.hoyle@deq.ok.gov
PRIMARY	ODH	Rocky	McElvany	rockym@health.ok.gov
ALTERNATE	ODH	Scott	Sproat	scotts@health.ok.gov
PRIMARY	OPCC	Scott	Schaeffer	scott-schaeffer@ouhsc.edu



# Personnel Changes

## Oklahoma

Agency	Role	Incoming Name	Outgoing Name
OEM	Executive Director	Mark Gower	Michelann Ooten
OSEE	Secretary	Kenneth Wagner	Col. Michael Teague (ret.)



# BF Goodrich

Oklahoma





# BF Goodrich

## Oklahoma





# BF Goodrich

Oklahoma





# BF Goodrich

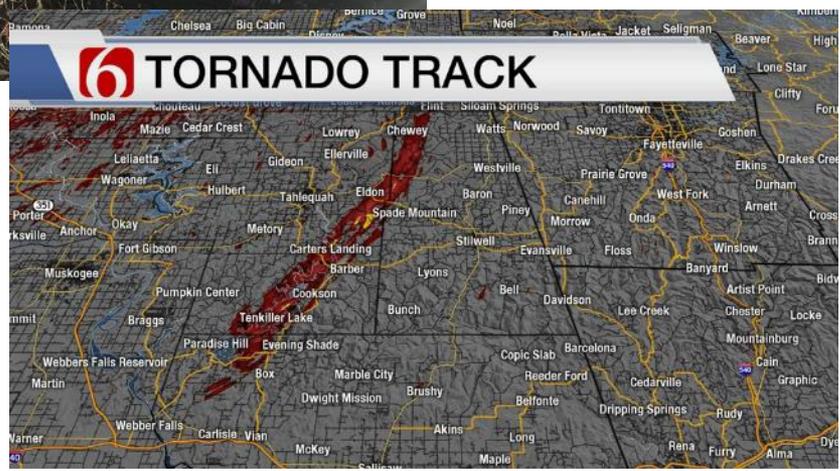
Oklahoma





# Cherokee Co. Tornado Response

Oklahoma





# Cherokee Co. Tornado Response

Oklahoma

- PWS intake damage under repair – on secondary source water
- Marina cleanup ongoing – COE monitoring
- Cleanup and recovery are still on-going
- No IA/PA available
- DEQ provided the county a grant to assist with debris disposal
- The county received a grant from Red Cross
- Weekenders are starting to show up



# LEPC Outreach

## Oklahoma

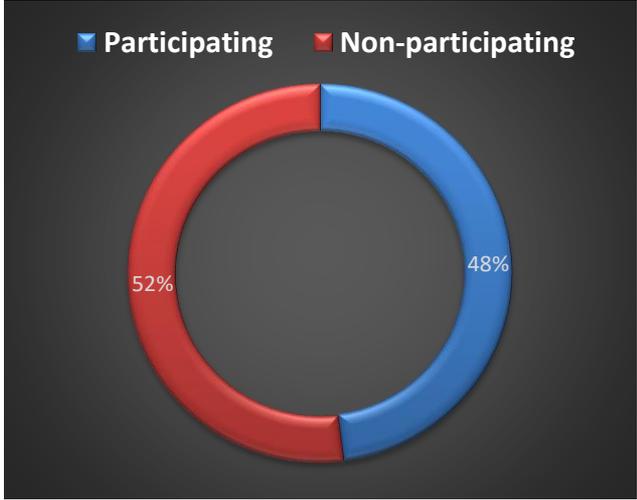
### LEPC Equipment Reimbursement Program

The Oklahoma DEQ is committed to supporting LEPCs and their partnership with first responders for the protection of public health and safety. Reimbursement grant opportunities provide training and protective equipment for hazardous waste emergency planning and response.

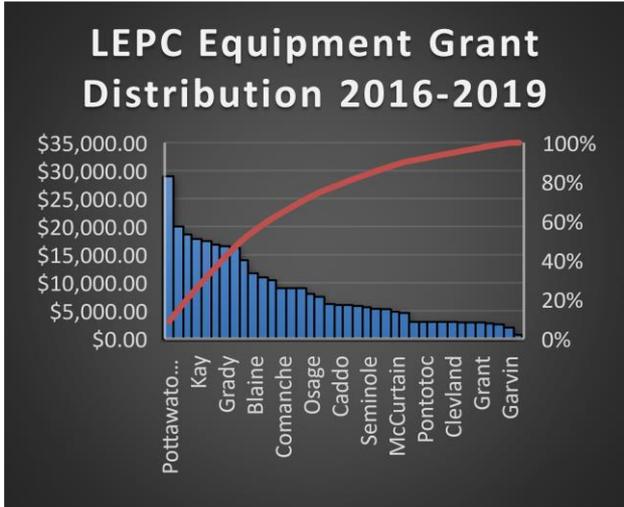
Penalty fees generated from the Hazardous Waste Fund are used to help county emergency services purchase equipment for hazardous material detection and clean-up through our state LEPCs.

Examples include:

- Gas meters
- Chemical spill kits
- Rescue equipment and gear
- Radios



Counties Participating in LEPC Equipment Reimbursement



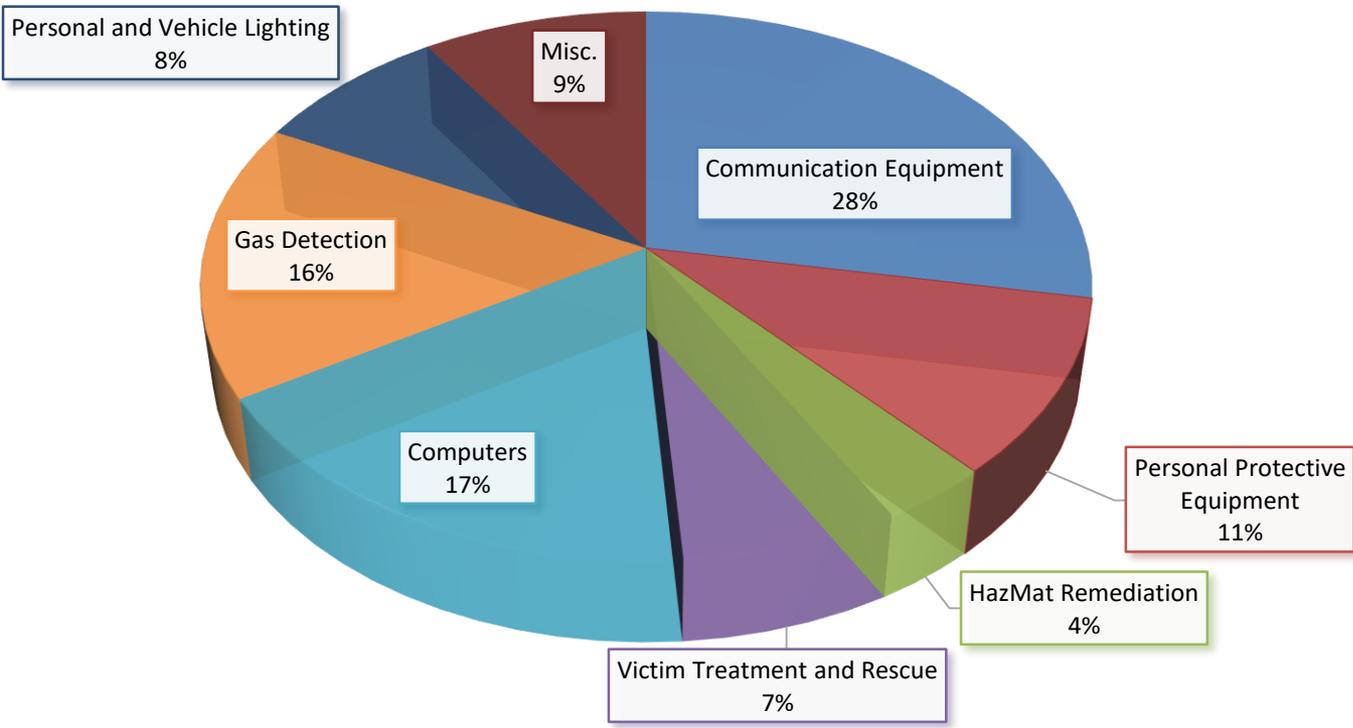
LEPC Grant Distribution 2016-2019



# LEPC Outreach

Oklahoma

**DISTRIBUTION OF EQUIPMENT TYPE 2016-2019**



2016 – 2019 funds expended \$323,274.47



# Metrics/Trends/Challenges

Oklahoma

Since the last meeting...

DEQ complaints

1,038

DEQ spills

134

DEQ fishkills

8

DEQ enforcement (ECLS only)

74

Referred complaints & spills

142





# Laws/Regulations/Policies

Oklahoma

- DEQ Emergency Response SOP being updated.
- Emergency Management Week
  - March 24 through March 30, 2019
- Emergency Management Day at the Capitol
  - March 27, 2019



# Accomplishments

## Oklahoma

### Training

Description	Dates
4 Corners Emergency Management Conference	December 3-5, 2018
Tornado Summit	March 5-6, 2019

### Exercises/Workshops

Description	Dates
Pipeline Exercise	Ask Dakota
SEOC Communications Exercise	November 15, 2018

### Fed/State/Local planning and coordination efforts

Description	Dates
LEPC Outreach, Training, & Assistance	



# Outlook

## Oklahoma

### Training

Description	Dates
OEM – Recovery from Disaster, Local Government Role	April 3, 2019
OEM – Disaster Recovery for Rural Communities	April 17, 2019

### Exercises/Workshops

Description	Dates
Express Services Exercise	April 12, 2019
Phillips 66 WCD Exercise	April 30-May 1, 2019

### Fed/State/Local planning and coordination efforts

Description	Dates
Phillips 66 WCD exercise planning	April 30-May 1, 2019
State Radiation Response Plan (ESF #8 & ESF #10, Appendix 1)	Completion by 2020
Earth, Wind, & Fire 2019 – state-wide exercise	Fall 2019

# State Report Outs



## RRT-6 Spring 2019 Meeting

27 March 2019

# Texas



PRIMARY	TCEQ	Anthony	Buck	<a href="mailto:anthony.buck@tceq.texas.gov">anthony.buck@tceq.texas.gov</a>
ALTERNATE	TCEQ	Tom	Erny	<a href="mailto:Tom.Erny@tceq.texas.gov">Tom.Erny@tceq.texas.gov</a>
PRIMARY	TDEM	Bryan	Becknel	<a href="mailto:bryan.becknel@dps.texas.gov">bryan.becknel@dps.texas.gov</a>
ALTERNATE	TDEM	Ben	Patterson	<a href="mailto:ben.patterson@dps.texas.gov">ben.patterson@dps.texas.gov</a>
PRIMARY	TDSHS	Bruce	Clements	
ALTERNATE	TDSHS	Jeff	Hoogheem	<a href="mailto:jeff.hoogheem@dshs.state.tx.us">jeff.hoogheem@dshs.state.tx.us</a>
ALTERNATE	TGLO	Steve	Buschang	<a href="mailto:Steve.Buschang@glo.texas.gov">Steve.Buschang@glo.texas.gov</a>
PRIMARY	TGLO	Jimmy	Martinez	<a href="mailto:Jimmy.a.martinez@glo.texas.gov">Jimmy.a.martinez@glo.texas.gov</a>
PRIMARY	TPWD	Johanna	Gregory	<a href="mailto:Johanna.Gregory@tpwd.texas.gov">Johanna.Gregory@tpwd.texas.gov</a>
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# Personnel Changes

Texas

Agency	Role	Incoming Name	Outgoing Name



# Metrics/Trends/Challenges

Texas

- Plugging Goals for FY19
  - Plug 1,560 orphaned wells with \$67 million (ESF)

- Plugging:

Currently 802 wells as of 2/28/2019 at an estimated cost of \$15.5M

- Site Remediation Goals for FY19:
  - 406 cleanup activities with \$20.9 million (OGRC)

- Site Remediation: As of Mar. 4, 2019:

Authorized or completed 114 cleanup activities at cost of \$11.5M.



# Inland State-Managed Cleanup Site

Texas





# Inland State-Managed Cleanup Site

Texas

<b>Date:</b>	<b>Currently ongoing- should be completed by FY 2020</b>
<b>Type and amount of product spilled:</b>	Asphaltene substance containing metals, NORM, and petroleum waste. The biggest tank contains 21,263 bbls of BS&W sludge with a consistency of toothpaste. We were unable to remove it with a vacuum truck. Tank was bulging at the weld seams & eventually released sludge inside firewall.
<b>Cause of spill:</b>	Original reclamation permit was for oily solid waste storage and treatment for use as road base. Too much waste was piling up so RRC revoked the permit.
<b>Key operational activities:</b>	Tank cleanup and removal, surface and subsurface soil removal, NORM removal, 150,000 yd <sup>3</sup> stockpile removal. Several emergency berm and/or containment activities following flooding events between 2014-present.
<b>Agencies Involved:</b>	Railroad Commission of Texas
<b>Major lessons learned:</b>	Too much stockpiling (18 feet in some areas) = an expensive cleanup We have spent 5M to date.  Closure costs (financial assurance) for permitted surface waste facilities are often irrelevant or non-existent.



# Inland State-Managed Cleanup Site

Texas



## Soil COCs:

NORM, arsenic, barium, lead, mercury, chlorides, benzene, TPH, and soil pH is 3.6

## Groundwater COCs:

Chloride, arsenic, benzene, and GW pH is 3.0



# Inland State-Managed Cleanup Site

Texas



**AOC 1 / 2**

Tanks removed

Drilling mud waste

Still ongoing

## AOC 1 / 2



Core from SB-21. Shallower, heavily impacted material on right.



View of scrap tanks at AOC 2. Looking south. Picture taken prior to June 2017 cleanup of this area.



# Inland State-Managed Cleanup Site

Texas



**AOC 3**

31,500 BBL  
Tank

Waste  
removed,  
cutting and  
removing tank

Ongoing

- AOC 1 – Possible Drilling Mud Disposal
- AOC 2 – NORM Tank Over Non-NORM Pit
- AOC 3 – 31,500 BBL Tank
- AOC 4 – E&P Waste, Possible 6' Deep
- AOC 5 – E&P Waste over AOC 4, Possible 12' Deep

# AOC 3



contaminated soils below the berm - West



# Inland State-Managed Cleanup Site

Texas

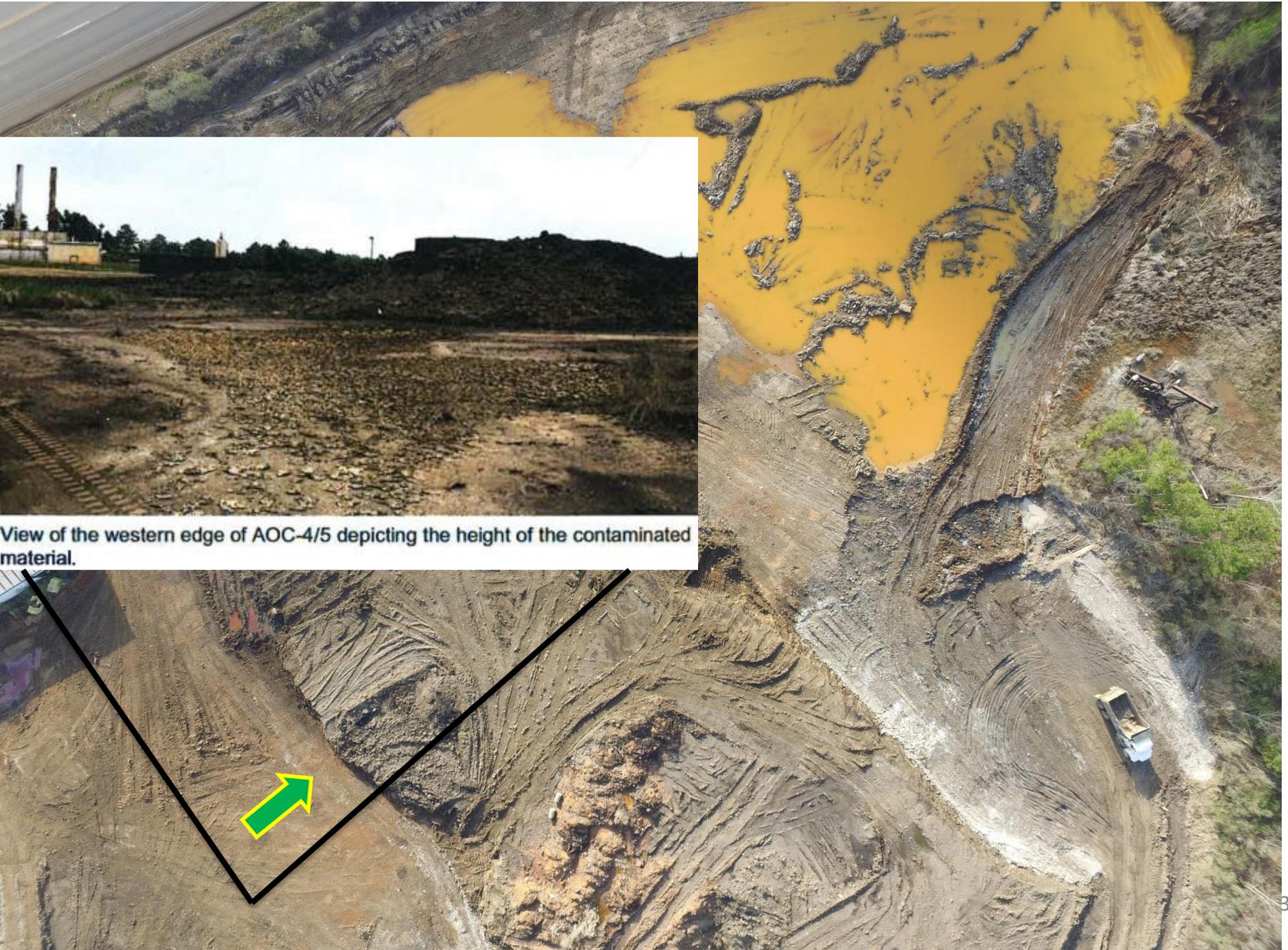
**AOC 4 / 5**



Stockpile of NORM and waste 18 feet high and 20 feet deep

Ongoing

# AOC 4 / 5



View of the western edge of AOC-4/5 depicting the height of the contaminated material.



# Laws/Regulations/Policies

Texas



# Accomplishments

Texas

## Training

Description	Dates
Shelter in Place Training	03/05/19
SOC 101 at Bunker	03/06/19

## Exercises/Workshops

Description	Dates
Pipeline Safety Workshop	03/07/19

## Fed/State/Local planning and coordination efforts

Description	Dates



# Outlook

## Texas

### Training

Description	Dates

### Exercises/Workshops

Description	Dates
Emergency Management Conference, San Antonio	April 15-19, 2019
RRC giving 3 presentations: <b>Knowing Who to Call, H2S in the Oil and Gas Industry, and RRC Emergency Response Roles &amp; Mock Emergency Exercise</b>	

### Fed/State/Local planning and coordination efforts

Description	Dates
Statewide Area Committee Meeting (RRT-6)	May 2019



# Sector New Orleans



Captain Kristi Luttrell  
Sector Commander



FY19 NRC Notifications	RRT Activations	Federal Projects	CERCLA Projects
<b>281</b>	00 Surface Washing Agents 00 In-situ Burns 00 Dispersants	<b>08</b>	<b>01</b>

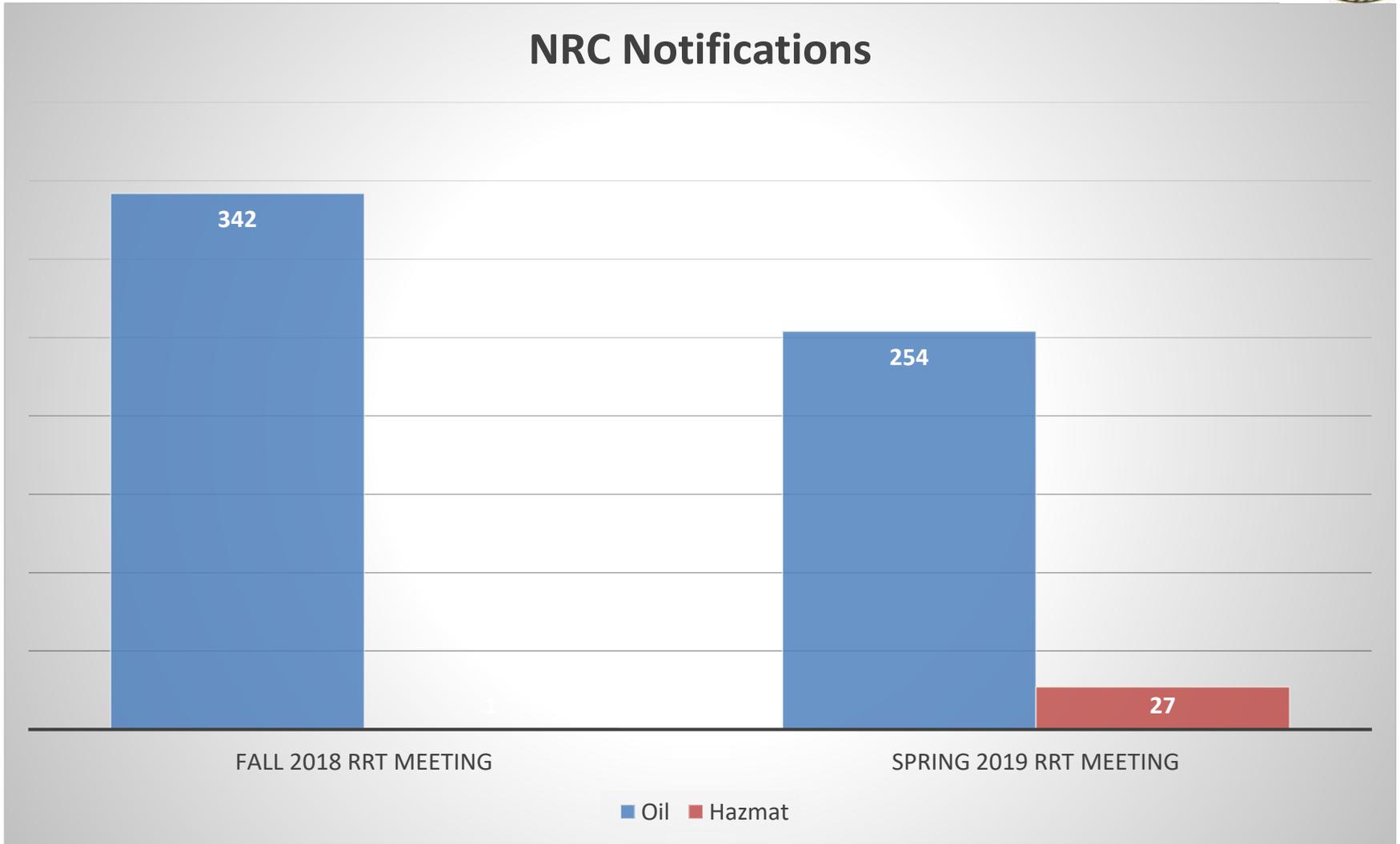


# Executive Summary

<b>Challenges-</b>	<ul style="list-style-type: none"><li>• Personnel Shortages for multiple responses federalized cases</li><li>• Aging infrastructure, environmental threats</li><li>• Sensitive Habitats and wildlife impacts</li></ul>
<b>Lessons Learned-</b>	<ul style="list-style-type: none"><li>• Local integration into response</li><li>• Local aerial surveillance for rapid overflight photo processing</li></ul>
<b>Best Practices-</b>	<ul style="list-style-type: none"><li>• E-Notification process for spills mtg certain threshold</li><li>• Emphasis on Safety during operations</li><li>• Flexible communication methods</li></ul>



## NRC Notifications





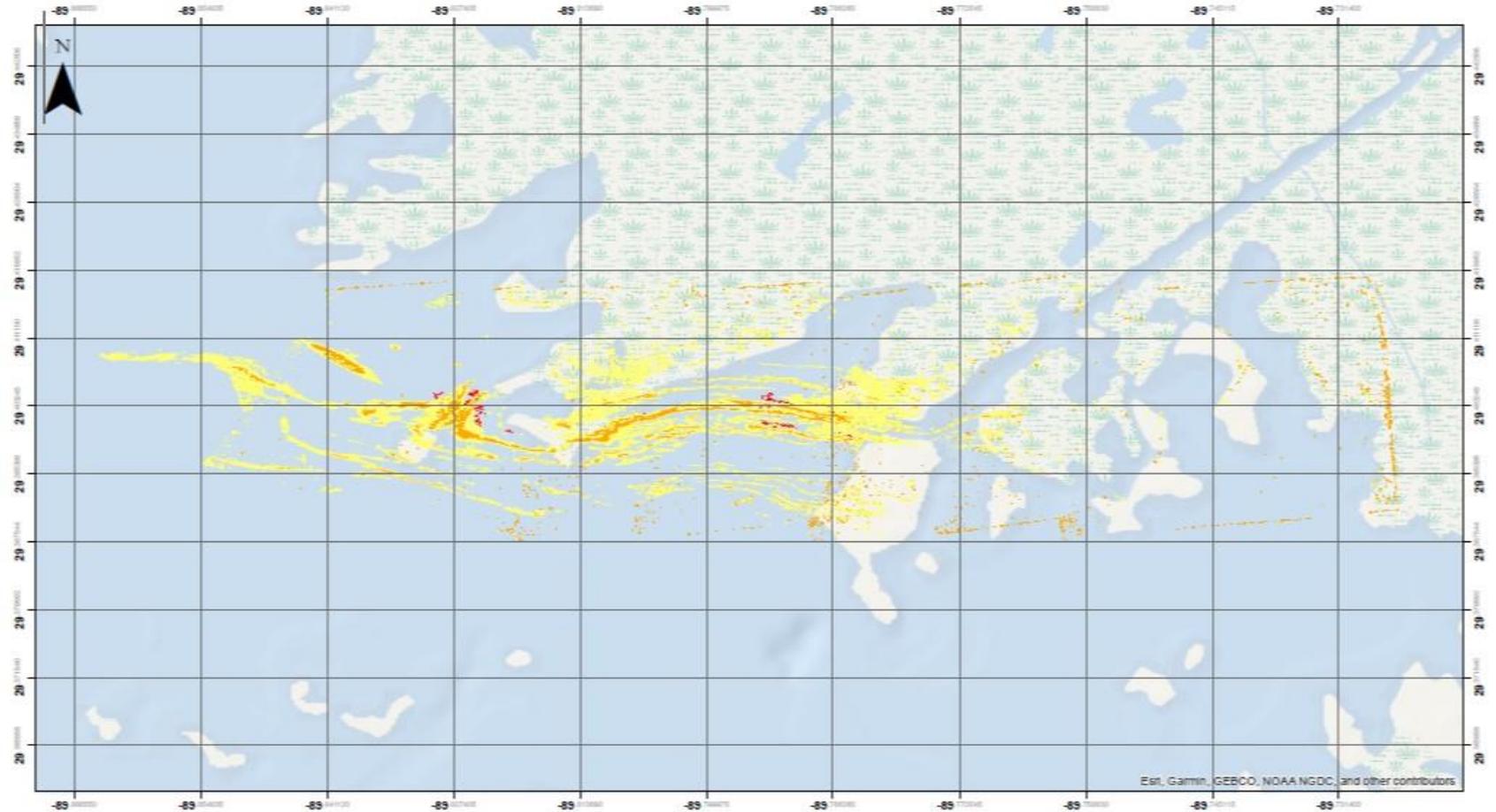
# RRT Activation / Notification

<b>Date:</b>	09 Dec 2018	<b>Activation</b>		<b>Notification</b>	
<b>Incident Name:</b>	Lake Washington A-10 Well Leak– Potential Major Oil Spill – Coastal Zone				
<b>Issue / Concern:</b>	USCG received a report of a wellhead actively discharging oil, water, and gas in Rattlesnake Bayou, LA.				
<b>Agencies Involved:</b>	USCG, LOSCO, DOC/NOAA, LA DNR, DEQ, BSEE  OSROs: FOREFRONT/ES&H, OMI, CGA, AMPOL				
<b>Decisions Made:</b>	ICP established for incident management <ul style="list-style-type: none"><li>• Source Control</li><li>• Recover/Removal Ops; 200 Personnel, 40 boats used for operation covering 80 sqNM</li><li>• Use of Spectral Imaging for initial impact assessment; assisted in SCAT efforts</li><li>• Drone usage +++</li></ul>				





# Ocean Imaging Products



Esti, Garmin, GEBCO, NOAA NGDC, and other contributors

**Oil Thickness Classes**    Metallic    Sheen    Thick / Actionable

Acquisition Date:  
4/12/2010 1340 - 1354 UTC

0 500 1,000 2,000 3,000 4,000  
Meters

FOSC Reports



# Consultations



Incident Name	Start Date	Stop Date	With	Phase	For	Species (Common Name)	Type	Federal Listing Status	Critical Habitat	Total Cost
Lake Washington	12/9/2019	Ongoing	LDWF	Planning & Response	Booming	Laughing Gull, Clapper Rail, Brown Pelican	ESA	Threatened	Yes	500
<b>Total</b>										<b>500</b>



# Accomplishments



Since last RRT meeting  
08-09 Nov 2018

## Training

Description	Dates
HSEEP	3-4 Oct 2018
NOAA SCAT Course	22-26 Oct 2018

## Exercises/Workshops

Description	Dates
TTX IMT CRIMSON MIDSTREAM	16 Nov 18

## Federal, state, and local planning and coordination efforts

Description	Dates
LEPCs (St. Tammany, St. Charles, St. John, St. James, St. Bernard, Jefferson, Plaquemines)	Ongoing
Region 1 Emergency Coordinators Meeting	Monthly
N.O. Federal Executive Board	Monthly
SE Louisiana Area Committee Meeting	2 per yr. req./13 Nov 18



# Outlook

Until Next RRT meeting  
27-28 March 2019



## Training

Description	Dates
CGA IN-SITU BURN CLASS	02-03 Apr 2019
GULF STRIKE TEAM MER OPERATIONS COURSE	01-05 Apr 2019

## Exercises/Workshops

Description	Dates
PREP FSE	20-24 May 2019

## Federal, state, and local planning and coordination efforts

Description	Dates
LEPC's (St. James, St. Charles, St. John, Plaquemines, Jefferson, St. Tammany, St. Bernard)	Ongoing/Regular
Geographic Response Strategies (GRS) Management Meetings	Ongoing
Louisiana Statewide AC Meeting	5 Jun 2019

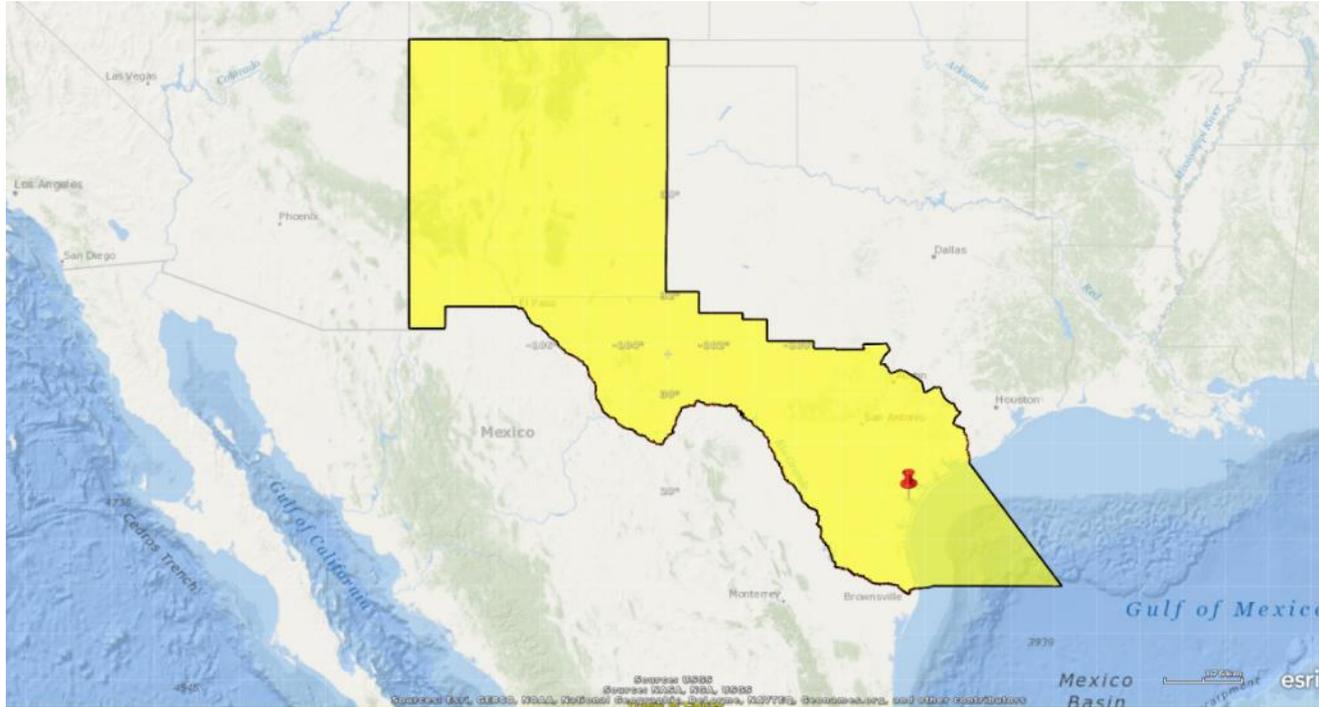




# Sector Corpus Christi

Captain Edward Gaynor

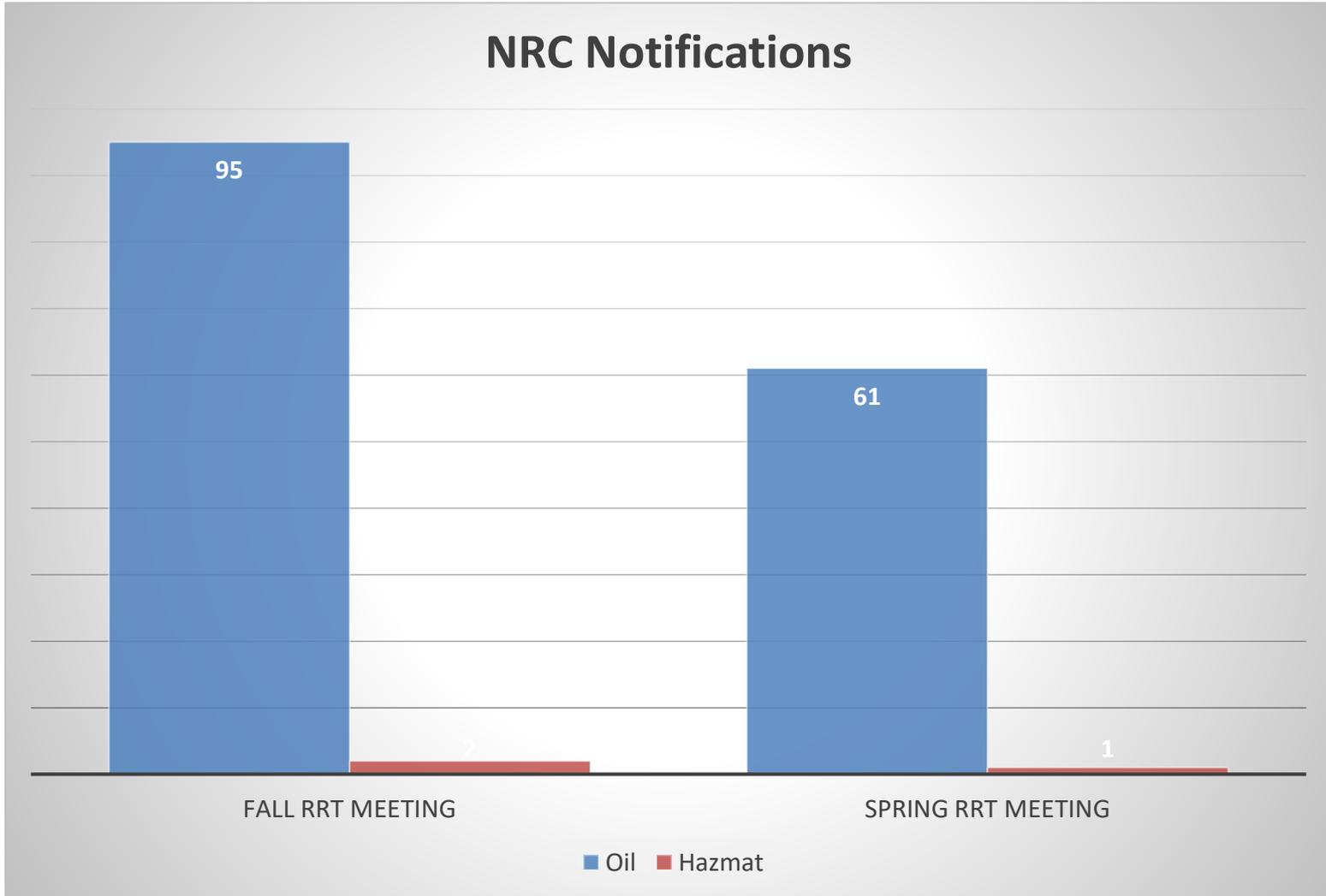
Sector Commander



NRC Notifications	RRT Activations	Federal Projects	CERCLA Projects
62	1 Surface Washing Agents 0 In-situ Burns 0 Dispersants	3	1



## NRC Notifications





# RRT Activation / Notification

<b>Date:</b>	17 Dec 2018	<b>Activation</b>		<b>Notification</b>	X
<b>Incident Name:</b>	Barge GM-5042 Discharge				
<b>Issue / Concern:</b>	Barge GM-5042 was loading VGO in the Corpus Christi Inner Harbor when the barge's tank was overfilled causing ~13 BBLs of VGO to discharge on deck. The barge's secondary containment could not contain the entire discharge and ~5 BBLs of VGO entered the Corpus Christi Inner Harbor.				
<b>Agencies Involved:</b>	U. S. Coast Guard, Texas General Land Office, and NOAA				
<b>Decisions Made:</b>	A modified ICP was established & staffed by USCG, TGLO, and RP. Multiple OSROs including 30+ responders, skimming systems, vacuum trucks, and pressure washing equipment were contracted by the RP. SWA PES-51 applied IAW Corpus Christi Inner Harbor Preauthorization of SWA Plan.				



*Incident Location*



*OSRO recovering VGO w/ shovels*



# RRT Activation / Notification

<b>Date:</b>	27 Dec 2018	<b>Activation</b>		<b>Notification</b>	X
<b>Incident Name:</b>	Sinking of TX 1755 FZ				
<b>Issue / Concern:</b>	TX 1755 FZ sunk due to unknown conditions. Potential o/b ~100 gallons of gasoline. RP attempted to raise vessel with straps and manual power but ops were deemed unsafe and terminated by the FOSCR.				
<b>Agencies Involved:</b>	U. S. Coast Guard & Texas General Land Office				
<b>Decisions Made:</b>	NOFA was issued and U.S. Coast Guard assumed all response operations. The FOSCR hired an OSRO and divers to safely and properly raise the vessel and remove the pollution threat mitigating damage to the surrounding environment and other vessels.				



*Incident Location*



*RP attempts to raise Vessel.*



# Consultations



Incident Name	Start Date	Stop Date	With	Phase	For	Species (Common Name)	Type	Federal Listing Status	Critical Habitat	Total Cost
NSTR										
<b>Total</b>										<b>0</b>



# Accomplishments



Since last RRT meeting  
08-09 Nov 2018

## Training

Description	Dates
LNG Workshop	9 Nov 2018
Union Pacific Transcaer Railcar Emergency Training	4 Feb 2019
ICS 300	12-15 Feb 2019
Oiled Wildlife Workshop	22 Feb 2019

## Exercises/Workshops

Description	Dates
Clean Gulf Conference	13-15 Nov 2018
Prep Notification Drills	15 Jan 2019
Q1/Q2 GIUE	11 Dec 2018 & 21 Feb 2019
Sector Corpus Christi IMT TTX	7 Feb 2019

## Federal, state, and local planning and coordination efforts

Description	Dates
NDOW Quarterly Meeting	28-29 Nov 2018
LEPC	8 Jan, 5 Mar 2019
STCZAC Meeting	24 Jan 2019 – cancelled due to lapse in appropriations



# Outlook

Until Next RRT meeting  
06-07 Nov 2019



## Training

Description	Dates
Science of Oil Spills	25-29 Mar 2019
SCAT	9-11 Apr 2019
Dispersants seminar	23 Apr 2019
ICS Workshop	15-17 May 2019
NDOW/Response Manager Refresher Training	6 May 2019

## Exercises/Workshops

Description	Dates
Q3/Q4 GIUE	May 2019 & Aug 2019
Prep Notification Drills	18 Apr, 16 Jul, 15 Oct 2019
NDOW Full Scale	6-10 May 2019
Severe Wx Seminar	18 Apr 2019

## Federal, state, and local planning and coordination efforts

Description	Dates
NDOW Quarterly Meeting	25-27 Jun 2019
LEPC	7 MAY, 2 Jul, 3 SEP, 5 Nov 2019
STCZAC Meeting	24 APR, 24 Jul, 23 Oct 2019
Texas Statewide AC Meeting	21 May 2019

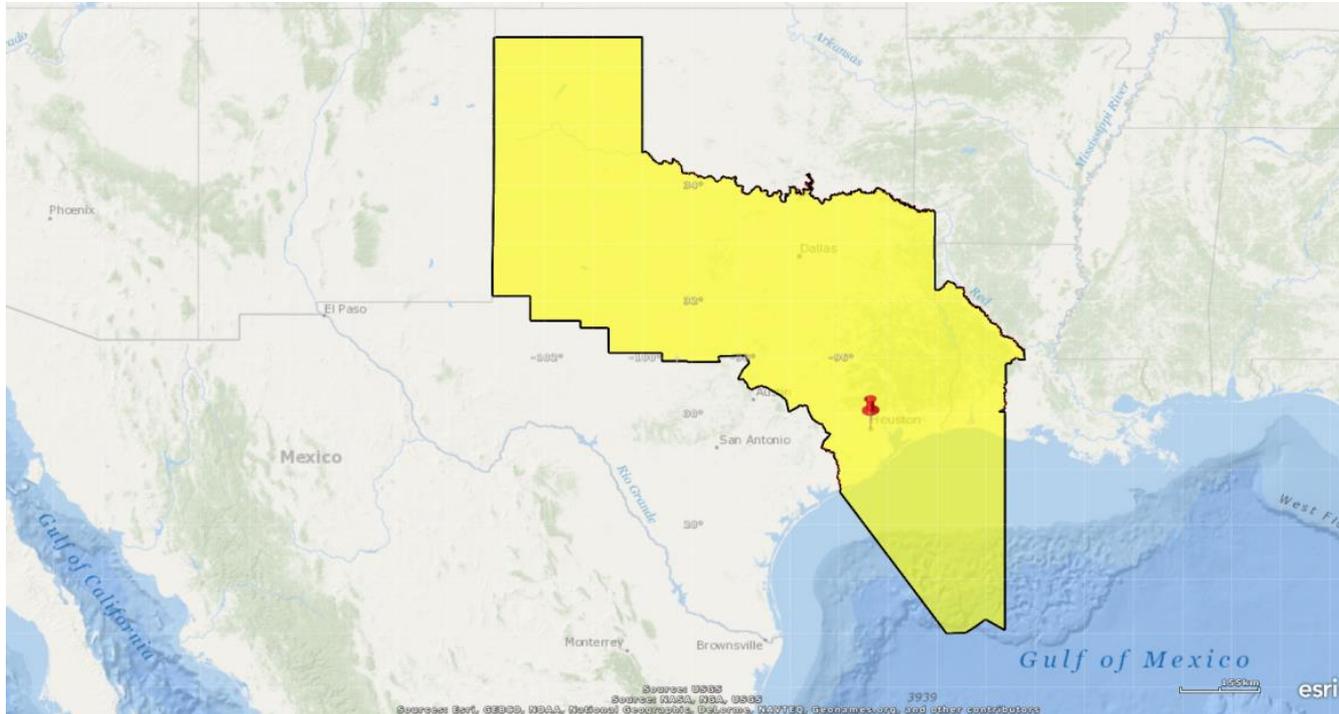




# Sector Houston-Galveston



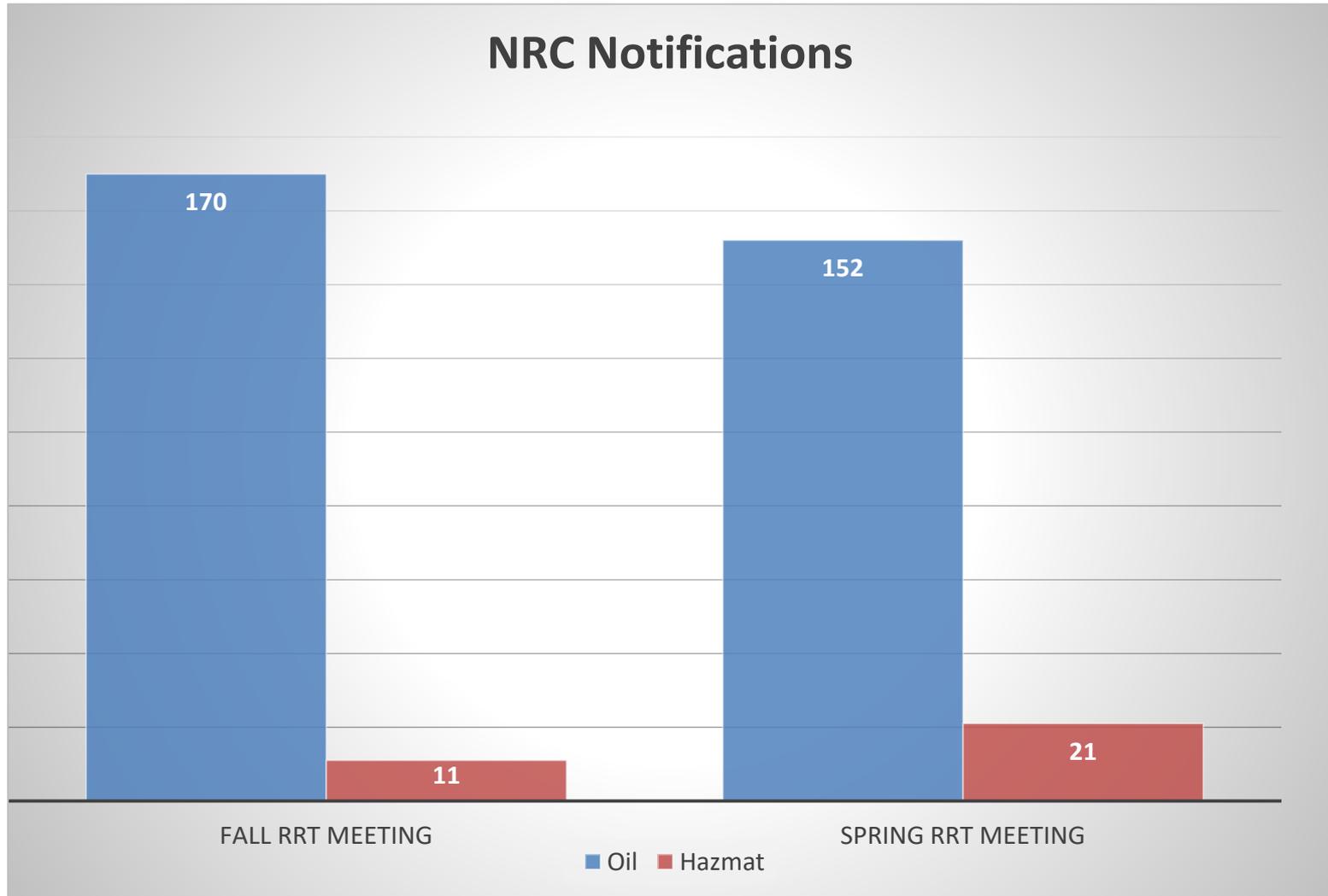
**Captain Kevin Oditt**  
**Sector Commander**



<b>NRC Notifications</b>	<b>RRT Activations</b>	<b>Federal Project #</b>	<b>CERCLA Project #</b>
<b>173</b>	<b>00 Surface Washing Agents 00 In-situ Burns 00 Dispersants</b>	<b>1</b>	<b>0</b>



# NRC Notifications



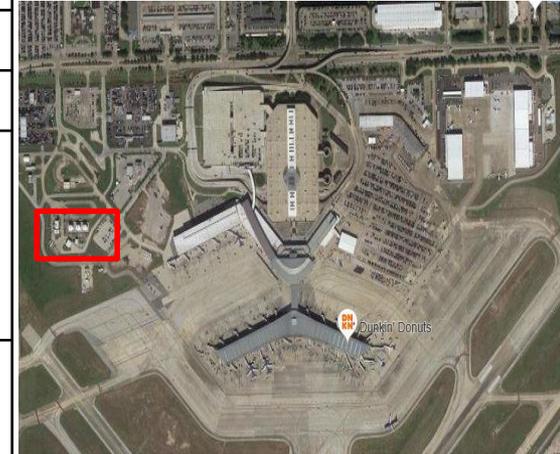
\* Only includes MER related NRC Notifications



# RRT Activation/Notification



<b>Date:</b>	03 Feb 2019	<b>Activation</b>	N	<b>Notification</b>	N
<b>Incident Name:</b>	Swissport Jet Fuel Discharge				
<b>Location:</b>	Hobby Airport				
<b>Type and amount of product spilled:</b>	<ul style="list-style-type: none"> <li>• JP-8; 61,420 gallons discharged with 3,000 - 4,000 gallons reaching Sims Bayou.</li> <li>• 32,797 gallons recovered from containment.</li> <li>• 658 Cubic yards of soil remediation completed, accounting for approximately 28,000 gallons of unaccounted for product.</li> </ul>				
<b>Issue / Concern:</b>	<ul style="list-style-type: none"> <li>• Tank to Tank transfer – Combination of Operator and Mechanical error. Operator failed to notice high tank alarm and automated shutoff failed allowing overfill of Tank #2.</li> <li>• Primary containment failed due to faulty dyke valve.</li> <li>• Fuel discharge amount overwhelmed secondary containment.</li> <li>• Product traveled over 2.5 miles through Hobby Airport drain system to Sims Bayou; found as far as Charles H. Milby Park.</li> <li>• Initial NRC reported 10-30 gallons waterway impact.</li> </ul>				
<b>Agencies Involved:</b>	TCEQ, USCG, TGLO, EPA, Houston HAZMAT				
<b>Decisions Made:</b>	<ul style="list-style-type: none"> <li>• RP hired National Response Corporation, for cleanup both on water and on land.</li> <li>• CG initial response - verify severity and location of spill. Houston HAZMAT deployed drone to track spill and assist OSRO in booming strategy.</li> <li>• Spill originated from Inland Zone – Following ACP section 1230 TCEQ and EPA are designated lead agencies for location.</li> <li>• USCG enforced Federal Water Pollution Control Act as lead federal official on scene.</li> <li>• Enforcement: Class I Civil Penalty - Proposed: \$10,000.</li> </ul>				



*Incident Location*



*Tank Farm*



# Hobby Airport Fuel Station



Primary Containment

Primary Containment Drain





# Hobby Airport Fuel Station



Sluice Gate Valve



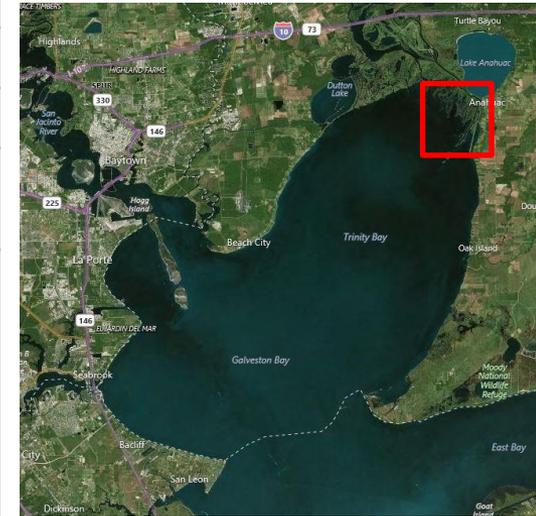
Storm Drain Outfall



# RRT Activation/Notification



<b>Date:</b>	23 Feb 2019	<b>Activation</b>	N	<b>Notification</b>	N
<b>Incident Name:</b>	Atlas Air Flight #3591 Crash				
<b>Location:</b>	Trinity Bay, Anahuac, TX				
<b>Type and amount of product spilled:</b>	<ul style="list-style-type: none"> <li>Fuel Remaining (Left, Right, Main and Center): <b>2239 gallons.</b></li> <li>Various auxiliary system hydraulic and lube oils: <b>53 gallons.</b></li> </ul>				
<b>Issue / Concern:</b>	<ul style="list-style-type: none"> <li>Cargo Plane with 3 POB - Initial Search and Rescue Response.</li> <li>Maximum water depth of 5 feet severely hampered accessibility with the majority of the site at less than 2 feet.</li> <li>Debris traveled 5NM South along eastern shore of Trinity Bay.</li> <li>Potential impact to national wildlife refuge; impact to marshland grasses from the crash as well as recovery ops.</li> <li>Cause still under investigation.</li> </ul>				
<b>Agencies Involved:</b>	TCEQ, USCG, TGLO, NOAA, EPA, NTSB, FBI, FAA, Houston HAZMAT, Harris County Sheriffs Office, Chambers County Sheriffs Office & EMS, HPD, Lone Star Retrieval, HazMat Special Services - LLC				
<b>Decisions Made:</b>	<ul style="list-style-type: none"> <li>TGLO fate analysis determined product unrecoverable due to dispersion within 3 hours of event.</li> <li>Booming strategy in place to prevent drift of crash debris and any potential pollution threat. (6,500 feet deployed)</li> <li>Salvage and recovery requires dredging and excavation due to mud bottom and insignificant water depth.</li> <li>AIRSTA, AUXAIR, &amp; multiple agency drone assets providing overflight monitoring of debris field.</li> </ul>				



*Incident Location*





# Atlas Air Boeing 767 Crash



Debris Field at Impact Location





# Atlas Air Boeing 767 Crash



## Impact to Marshland





# Atlas Air Boeing 767 Crash





# Atlas Air Boeing 767 Crash



## Booming Operations





# Atlas Air Boeing 767 Crash



## Booming Operations





# Atlas Air Boeing 767 Crash



## Debris Recovery and Removal





# Atlas Air Boeing 767 Crash



## Recovery Operations





# Atlas Air Boeing 767 Crash



## Recovery Equipment





# Consultations



Incident Name	Start Date	Stop Date	With	Phase	For	Species (Common Name)	Type	Federal Listing Status	Critical Habitat	Total Cost
NONE										
<b>Total</b>										



# Accomplishments



Since last RRT meeting  
08-09 Nov 2018

## Training

Description	Dates
Federal On-Scene Coordinator Representative (FOSCR) School	07-18 Jan 2019 18-29 Mar 2019
NOAA Science of Oil Spills	25-29 Mar 2019

## Exercises/Workshops

Description	Dates
Texas A&M Research Center Training Workshop	17-18 Dec 2018
Bryan Mound PREP Exercise	13 Feb 2019
USCG GIUE	05 Mar 2019
ECM Oil Spill Exercise	20 Mar 2019

## Federal, state, and local planning and coordination efforts

Description	Dates
Galveston County OEM Meetings	11Feb 2019, 04 Mar 2019
28 <sup>th</sup> Annual Clean Gulf Conference	13-15 Nov 2018
NDOW Full Scale Exercise Planning Meeting	31 Jan 2019
BSEE Tabletop Exercise	06 Mar 2019



# Outlook

Until Next RRT meeting  
06-07 Nov 2019



## Training

Description	Dates
NOAA SCAT Training	09-11 Apr 2019

## Exercises/Workshops

Description	Dates
NDOW Full Scale Exercise	06-10 May 2019
BP GoM Small Functional Exercise	15 May 2019

## Federal, state, and local planning and coordination efforts

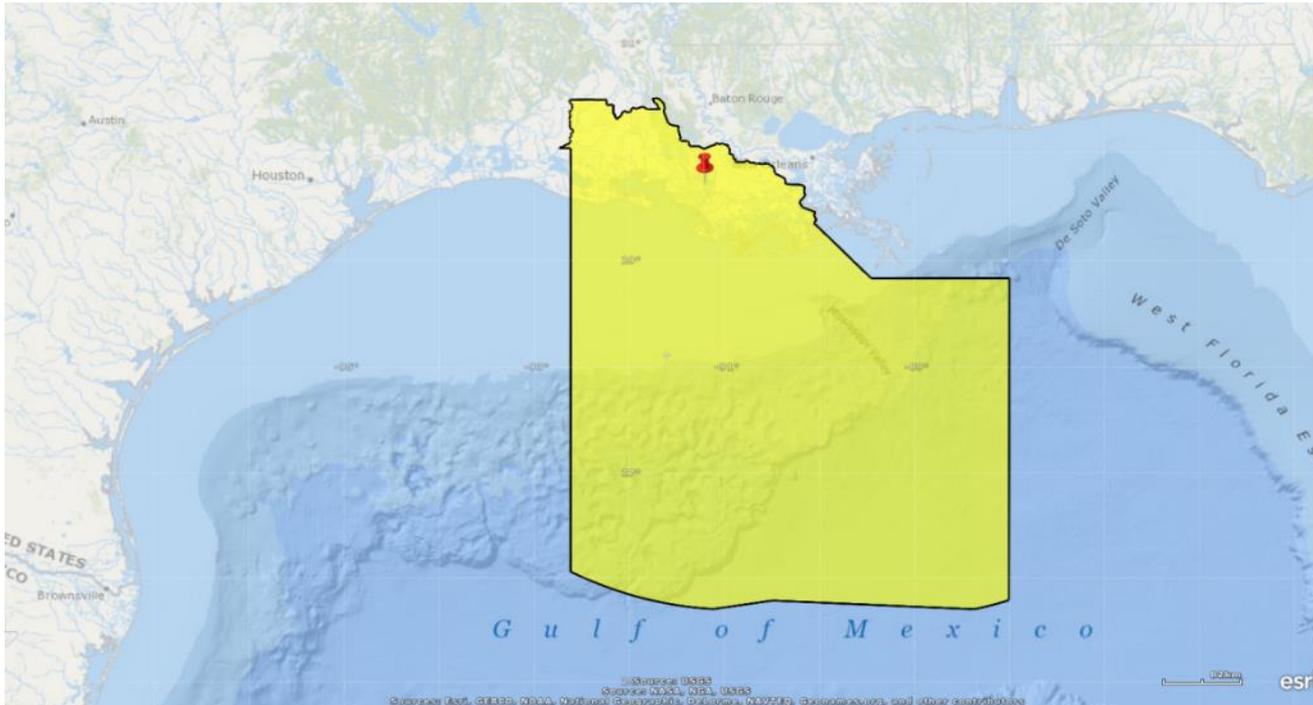
Description	Dates
Galveston County OEM Meeting	Mar-May 2019
Texas Statewide Area Committee	21 May 2019
BSEE GIUE	Various Dates
29 <sup>th</sup> Annual Clean Gulf Conference	28-30 Oct 2019



# MSU Houma



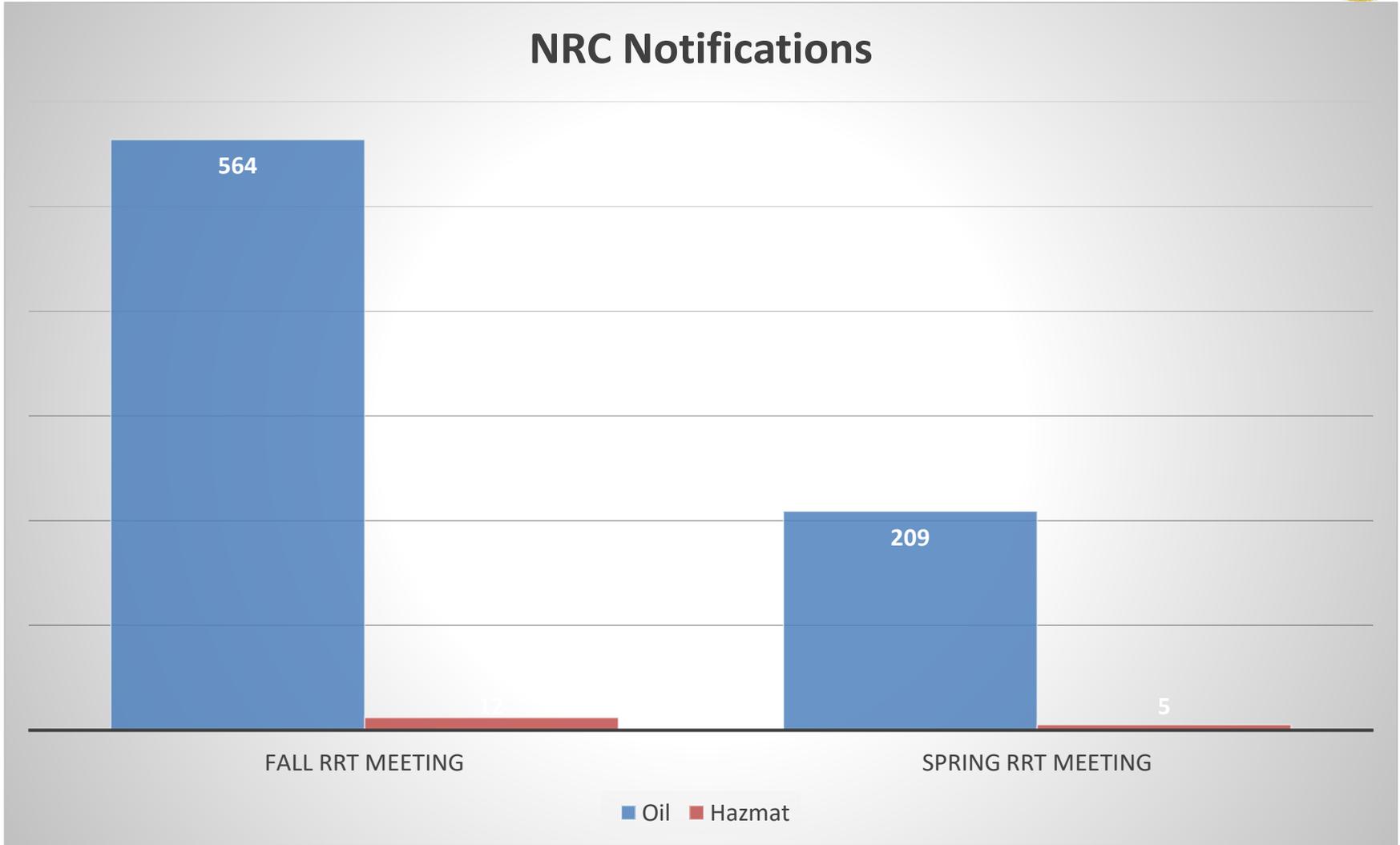
Captain Blake Welborn  
MSU Commanding Officer



NRC Notifications	RRT Activations	Federal Projects	CERCLA Projects
<b>214</b>	0 Surface Washing Agents 1 In-situ Burns 0 Dispersants	<b>6</b>	<b>0</b>



# NRC Notifications





# RRT Activation / Notification

<b>Date:</b>	15 Nov 2018	<b>Activation</b>	X	<b>Notification</b>	X
<b>Incident Name:</b>	Lake Pagie ISB				
<b>Issue / Concern:</b>	TPIC discharged approximately 40 bbls of crude oil condensate into a flotant in Lake Pagie. Condensate was trapped in the flotant making mechanical means of recovery difficult. All agencies involved agreed that ISB was the best way to mitigate the discharge with the least amount of environmental impact.				
<b>Agencies Involved:</b>	USCG, DOI, NMFS, NOAA, LOSCO, DEQ, SHPO, & Parish				
<b>Decisions Made:</b>	TPIC submitted ISB plan to FOSC and SOSC for review and approval. RRT6 incident specific activation call was conducted on 17 Nov 2018 and concurrence was given to conduct ISB.				





# RRT Activation / Notification

<b>Date:</b>	18 Nov 2018	<b>Activation</b>		<b>Notification</b>	
<b>Incident Name:</b>	RAM VXIII				
<b>Issue / Concern:</b>	Lift boat had a port leg malfunction causing a 45 degree list. Crew members rescued. Vessel continued to list/sink. Potential: 13,000 Diesel and 2,000 various oils. Vessel capsized on 24 NOV.				
<b>Agencies Involved:</b>	USCG, NOAA, USCG SERT, & BSEE				
<b>Decisions Made:</b>	MSU Houma contacted NOAA SSC for trajectory and spill fate. FOSC issued ADMIN Order on 21 Nov 2018 for the removal of all remaining fuel onboard. All fuel and pollutants were removed on 08 Dec 2018. Due to weather, the vessel was moved into deeper water and intentionally sunk until it can be salvaged in the spring.				





# RRT Activation / Notification

<b>Date:</b>	01 Dec 2018	<b>Activation</b>		<b>Notification</b>	
<b>Incident Name:</b>	M/V PACIFIC SHARAV				
<b>Issue / Concern:</b>	M/V PACIFIC SHARAV discharged 2,282 bbls BaraECD 4.2 Liquid Mud (Synthetic Based drilling mud) due to an emergency disconnect during inclement weather. Most of the product fell to sea floor and was unrecoverable.				
<b>Agencies Involved:</b>	USCG, NOAA, & BSEE				
<b>Decisions Made:</b>	MSU Houma contacted NOAA SSC for trajectory and spill fate. SSC confirmed that most of the product would sink and was unrecoverable. Several overflights were conducted and no surface expression was discovered. No recovery resources were deployed.				





# Consultations



Incident Name	Start Date	Stop Date	With	Phase	For	Species (Common Name)	Type	Federal Listing Status	Critical Habitat	Total Cost
TPIC 40BBL, Lake Pagie	15NOV18	20NOV18	NMFS & USFW	Response	ISB	Bald Eagle, Colonial Water birds,	ESA	N/A	No	200
TPIC 40BBL, Lake Pagie	15NOV18	20NOV18	SHPO	Response	ISB	Historic Land and Tribal Concerns	SHPO	N/A	No	200
<b>Total</b>										<b>\$400</b>



# Accomplishments



Since last RRT meeting  
08-09 Nov 2018

## Training

Description	Dates
NSFCC PAV	11 Feb 2019

## Exercises/Workshops

Description	Dates
First Quarter GIUE	29 Nov 2018
NOAA Sea Grant Workshop	04-05 Dec 2018
Second Quarter GIUE	25 Feb 2019

## Federal, state, and local planning and coordination efforts

Description	Dates
28 <sup>th</sup> Annual Clean Gulf Conference	13-15 Nov 2018
Area Committee Meeting	07 Dec 2018
Preparedness Assessment Visit (PAV)	11-15 Feb 2019



# Outlook

Until Next RRT meeting  
06-07 Nov 2019



## Training

Description	Dates
NOAA SCAT Course	TBD
Sciences of Oil Spill Course	25 -29 Mar 2019
DRAT FOSCR Collage	29 Jul – 02 Aug 2019
Spill Response Course	Summer 2019

## Exercises/Workshops

Description	Dates
Third and Fourth Qtr. GIUEs	TBD
LOOP TTX	18 Jul 2019
Sector NOLA Full Scale PREP	22-23 May 2019

## Federal, state, and local planning and coordination efforts

Description	Dates
Louisiana Statewide AC Meeting	05 Jun 2019
Area Committee Meeting	TBD
29 <sup>th</sup> Annual Clean Gulf Conference	28-30 Oct 2019





# MSU Port Arthur



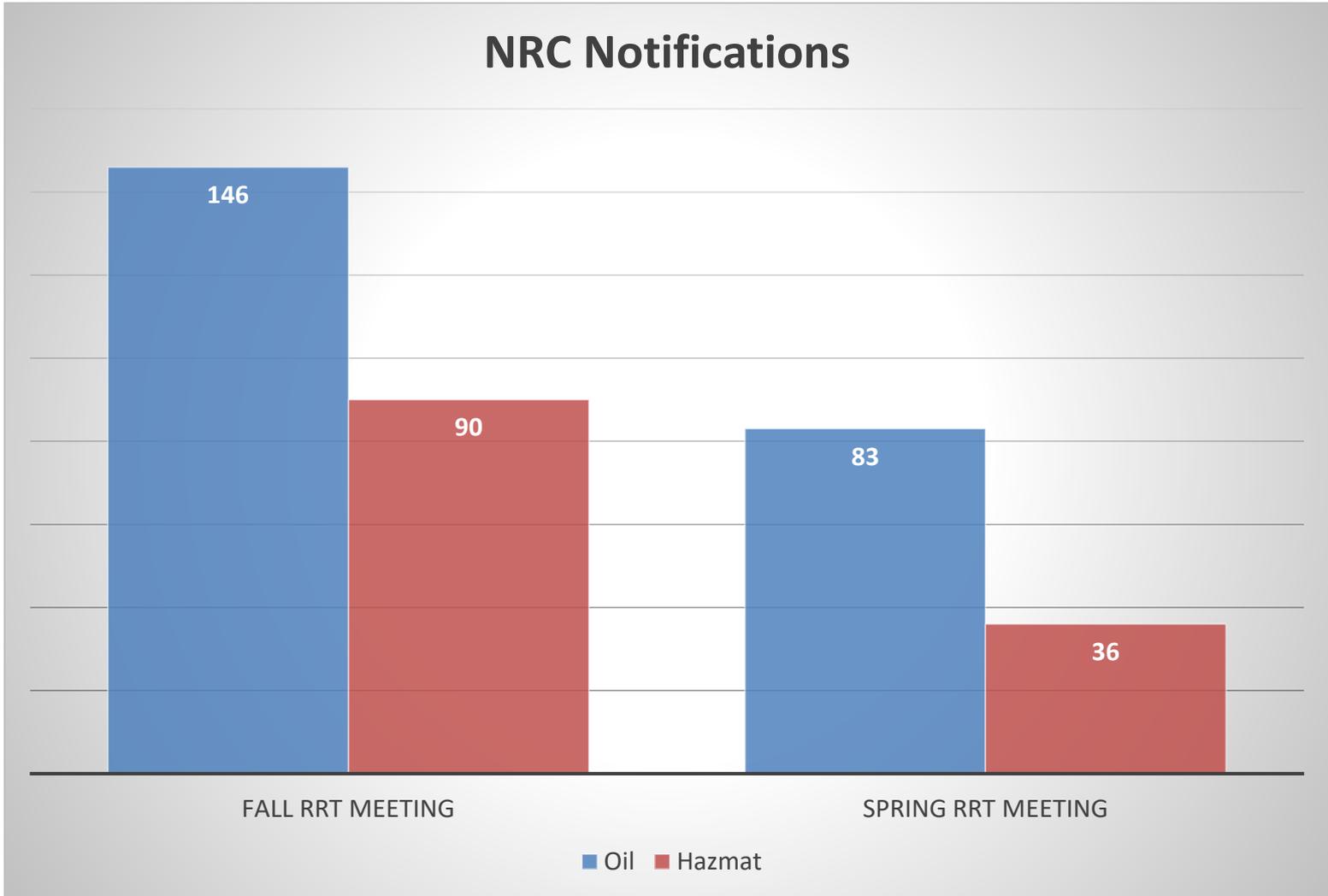
Captain Jacqueline Twomey  
MSU Commanding Officer



NRC Notifications	RRT Activations	Federal Projects	CERCLA Projects
<b>119</b>	00 Surface Washing Agents 00 In-situ Burns 00 Dispersants	<b>02</b>	<b>03</b>



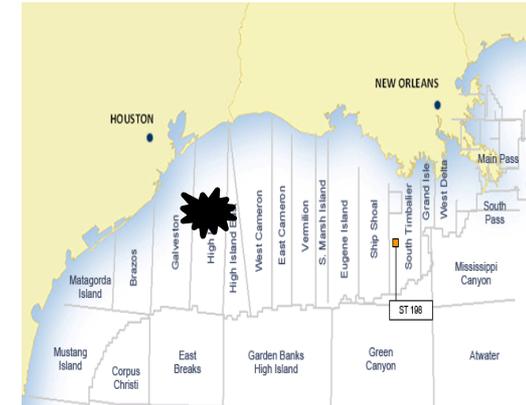
# NRC Notifications





# RRT Activation / Notification

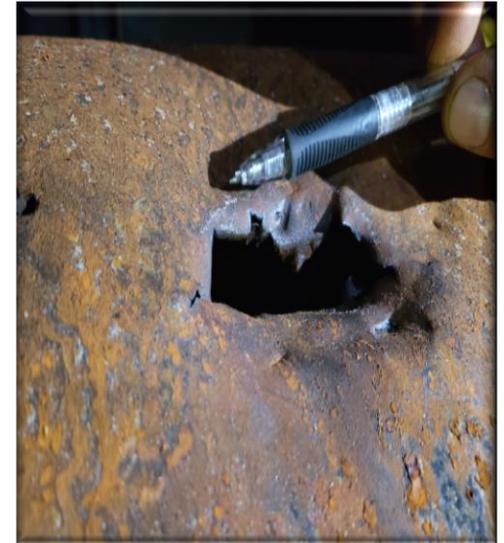
<b>Date:</b>	15 Nov 2018	<b>Activation</b>		<b>Notification</b>	
<b>Incident Name:</b>	High Island 24				
<b>Issue / Concern:</b>	1,000+ gallons of crude oil discharged from Jefferson Block 24 Oil and Gas LLC's platform in High Island block 24, Gulf of Mexico.				
<b>Agencies Involved:</b>	USCG, DOI/USFW, DOC/NOAA, TGLO, Texas Parks and Wildlife, & LOSCO				
<b>Decisions Made:</b>	Conducted CG overflight, opened OSLTF for \$200,000 due to RP's inaction. OSRO vessel onscene to monitor and skim oil. Prime 8 Offshore contracted to assist Wild Well Control with identifying and securing source of discharge.				





# RRT Activation / Notification

<b>Date:</b>	30 Jan 2019	<b>Activation</b>		<b>Notification</b>	
<b>Incident Name:</b>	M/V SEABULK ARTIC				
<b>Issue / Concern:</b>	Approx. 2 barrels of diesel from hole in vessel's ballast water line.				
<b>Agencies Involved:</b>	RP, OSROs, Facility, USCG – Port Everglades, MSU Lake Charles, & Sector Mobile.				
<b>Decisions Made:</b>	Facility activated FRP, conducted cleanup and investigation into potential sources. MSU Lake Charles coordinated w/facility, Port Arthur VTS, and CG units to ID potential sources and took samples. MSU Lake Charles discussed with RP and NPFC options in case RP would not acknowledge responsibility.				





# Consultations



Incident Name	Start Date	Stop Date	With	Phase	For	Species (Common Name)	Type	Federal Listing Status	Critical Habitat	Total Cost
NONE										
<b>Total</b>										



# Accomplishments



Since last RRT meeting  
08-09 Nov 2018

## Training

Description	Dates
FOSCR "C" School	7-18 Jan 2019
ICS Training (IC & LOFR)	17 Jan 2019
ICS 430/440	14-18 Jan 2019
ICS 300	4-8 Feb 2019
ICS 358	18-22 Feb 2019
FOSCR "C" School	17 -29 Mar 2019
Science of Oil Spills Course	25-29 Mar 2019

## Exercises/Workshops

Description	Dates
TAMU Exercise	17-18 Dec 2018
DIVS Drill	27 Feb 2019
Phillip 66 WCD TTX	28 Feb 2019
GIUE	20 Feb 2019

## Federal, state, and local planning and coordination efforts

Description	Dates
28 <sup>th</sup> Annual Clean Gulf Conference	13-15 Nov 2018
NDOW Meeting	28-29 Nov 2018
MTEP D8 Meeting	6 Feb 2019
AC ESG Meeting	12 Mar 2019
LEPC Meetings	20 Nov 2018, 15 Jan 2019, 19 Feb 2019, 19 Mar 2019



# Outlook

Until Next RRT meeting  
06-07 Nov 2019



## Training

Description	Dates
SCAT Course	9-12 Apr 2019
ICS 620 Area Command	9-12 Apr 2019
FOSCR College (St. Louis)	2 Apr – 3 May 2019
MGT 314	3-7 Jun 2019
FOSCR College (NOLA)	29 Jul - 2 Aug 2019
Spill Response Course (MC)	26-30 Aug 2019

## Exercises/Workshops

Description	Dates
Dispersant Seminar	23 Apr 2019
NDOW/Severe WX FSE	6-10 May 2019

## Federal, state, and local planning and coordination efforts

Description	Dates
Texas Statewide AC Meeting	21 May 2019
Louisiana Statewide AC Meeting	5 Jun 2019

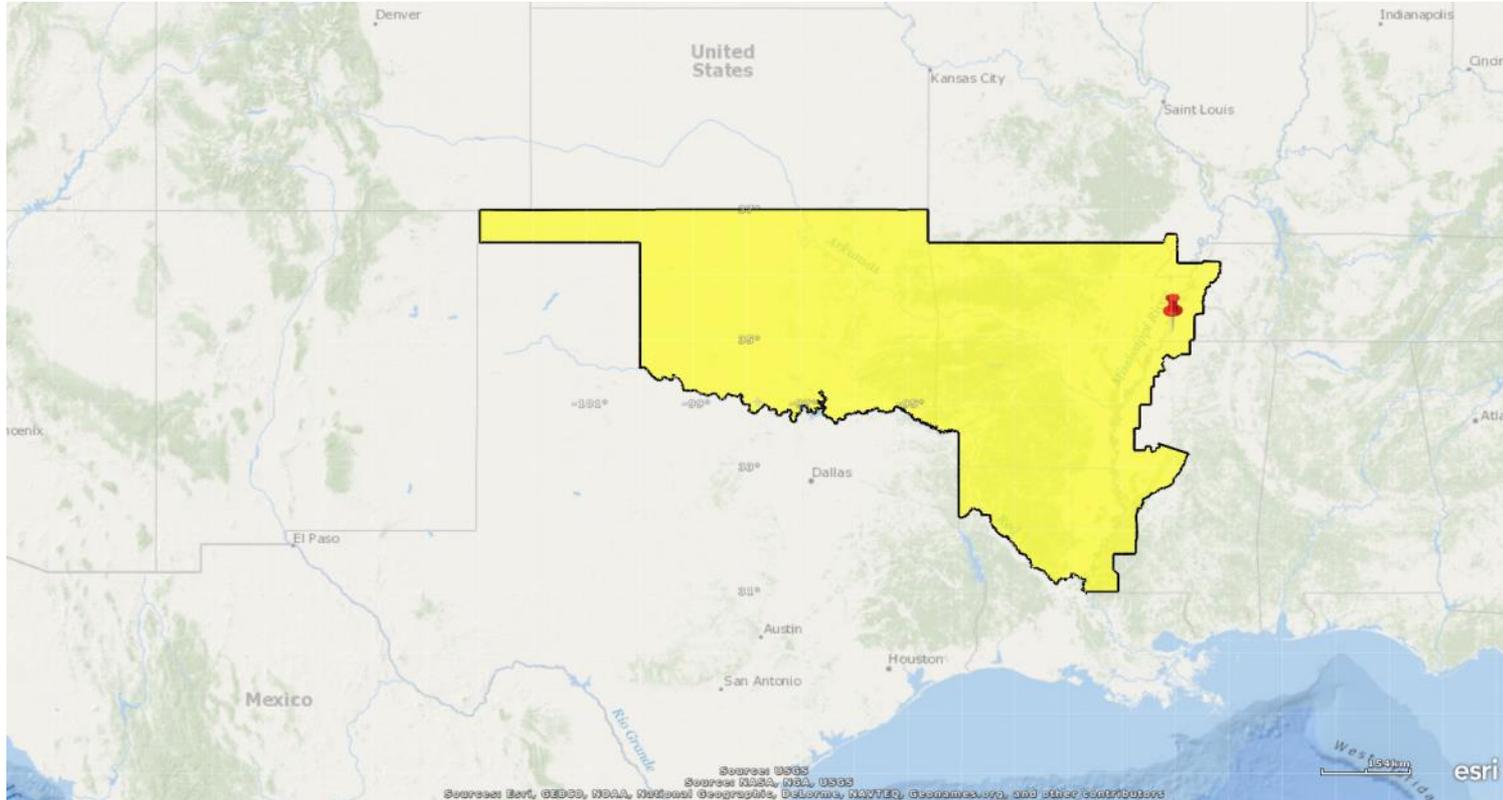


# Sector Lower Mississippi River



Captain Roxanne Tamez

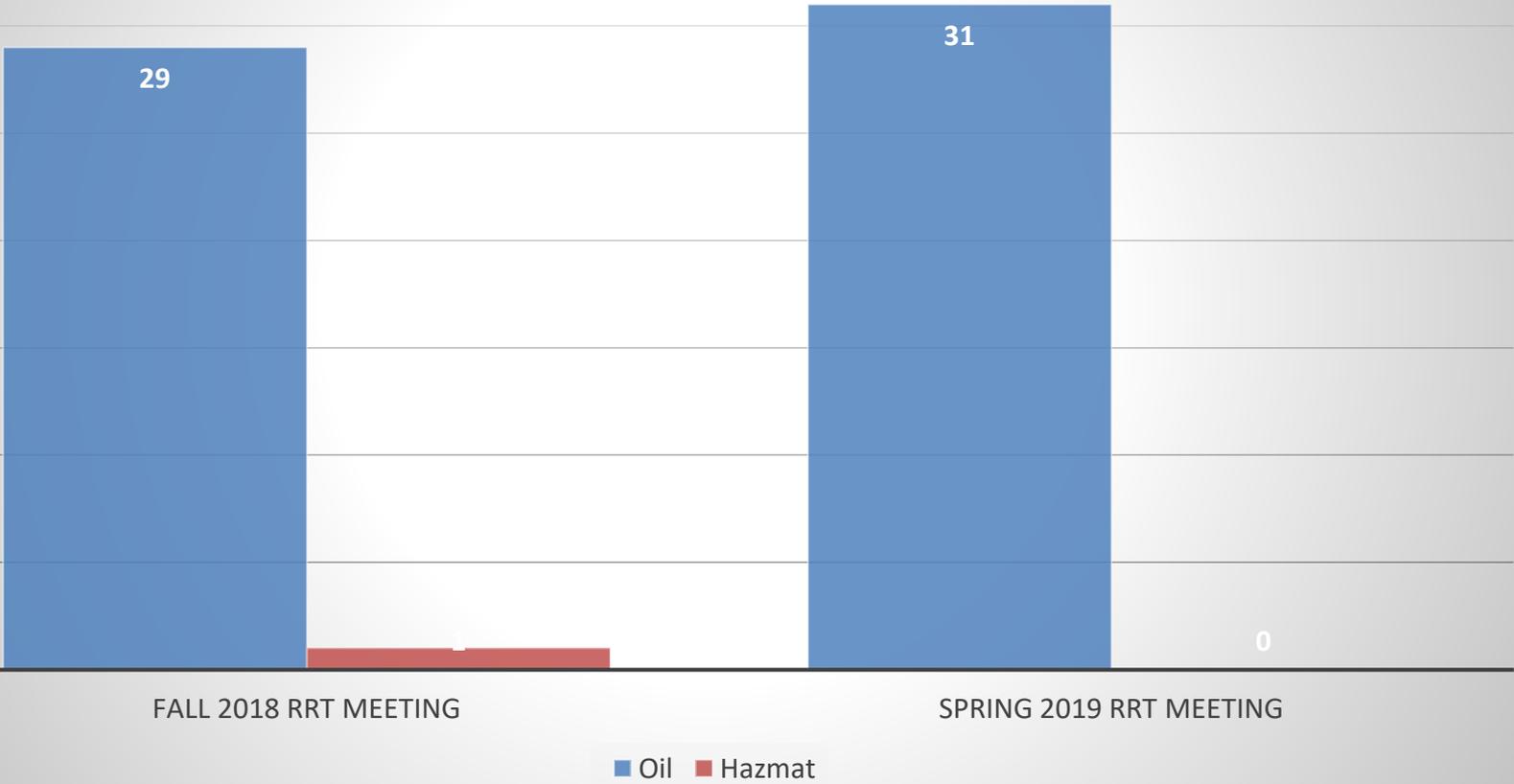
Sector Commander



NRC Notifications	RRT Activations	Federal Projects	CERCLA Projects
<b>31</b>	00 Surface Washing Agents 00 In-situ Burns 00 Dispersants	00	00



# NRC Notifications





# Consultations

Incident Name	Start Date	Stop Date	With	Phase	For	Species (Common Name)	Type	Federal Listing Status	Critical Habitat	Total Cost
None										
<b>Total</b>										

[REIMBURSABLE STANDARD RATES](#)



# Accomplishments



Since last RRT meeting  
08-09 Nov 2018

## Training

Description	Dates
FEMA Sports & Special Events Incident Management Course	4-5 Dec 2018
ICS-300	11-14 Dec 2018
CG-MER Webinar for National Environmental Compliance and Endangered Species Act	12 Dec 2018
CBRNE Training	7-8 & 10-11 Jan 2019
Science of Oil Spills	25-29 Mar 2019

## Exercises/Workshops

Description	Dates
GIUE – Sector	13 Nov 2018
AR National Guard CST Full-Scale Exercise	12-13 Mar 2019
GIUE – DD Fort Smith	11 Mar 2018

## Federal, state, and local planning and coordination efforts

Description	Dates
LEPC Meetings	Monthly
28 <sup>th</sup> Annual Clean Gulf Conference	13-15 Nov 2018



# Outlook

Until Next RRT meeting  
06-07 Nov 2019



## Training

Description	Dates
RadSeeker Training - NOLA	2 Apr 2019

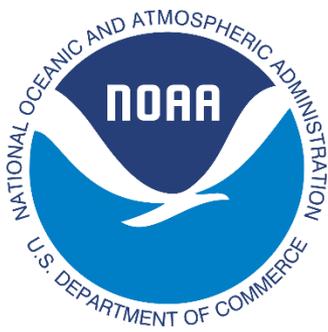
## Exercises/Workshops

Description	Dates
IMAT Workshop	24-26 Apr 2019
Shaken Fury Exercise	2-5 Jun 2019
GIUE – MSD Vicksburg	TBD

## Federal, state, and local planning and coordination efforts

Description	Dates
LEPC Meetings	Monthly
3 <sup>rd</sup> Annual Clean Waterways Conference	16-18 Apr 2019
RRT-5 Meeting	23-25 Apr 2019
RRT-4 Meeting - Cape Canaveral, FL	7-10 May
Shaken Fury 19 – Earthquake Exercise	3-7 Jun 2019
29 <sup>th</sup> Annual Clean Gulf Conference	28-30 Oct 2019





Alternate	U.S. DOC -- NOAA	Paige	Doelling	<a href="mailto:paige.doelling@noaa.gov">paige.doelling@noaa.gov</a>
Primary	U.S. DOC – NOAA	Charlie	Henry	<a href="mailto:charlie.henry@noaa.gov">charlie.henry@noaa.gov</a>
Alternate	U.S. DOC -- NOAA	Brandi	Todd	<a href="mailto:brandi.todd@noaa.gov">brandi.todd@noaa.gov</a>



# Key Personnel Changes

Role	Incoming	Outgoing
New Orleans NOAA Scientific Support	ENS Ololade (Lola) Ajilore, NOAA Corps	LT Steve Wall, NOAA Corps



# Laws/Regulations/Policies

- NSTR - Nothing Significant to Report



# Training/Exercise Outlook

Description	Dates
Science of Oil Spills (SOS) Mobile, AL	25-29 March 2019
Science of Oil Spills (SOS) Seattle, WA	3-7 June 2019
Science of Chemical Releases (SOCR) Seattle, WA	18-20 June 2019
Science of Oil Spills (SOS) Cleveland, OH	22-26 July 2019

<https://response.restoration.noaa.gov/training-and-education/training/workshops/science-oil-spills-classes.html>

**Exercises: A few... mostly internal and with USCG Sector  
Mobile, AL**



# Looking Ahead...

<b>Challenges</b> -	<b>Planning for another busy hurricane season...</b>
<b>Lessons Learned-</b>	<b>(see best practices)</b>
<b>Best Practices-</b>	<b>What did we really learn over the last two years?</b>

# Federal Report Outs



## RRT-6 Spring 2019 Meeting

26-27 Mar 2019

# DOI and Its Bureaus/Services

- Office of the Secretary
  - **Office of Environmental Policy & Compliance (“DOI”)**
- Bureaus/Services
  - Bureau of Indian Affairs (BIA)
  - Bureau of Land Management (BLM)
  - Bureau of Ocean Energy Management (BOEM)
  - **Bureau of Safety and Environmental Enforcement (BSEE)**
  - Bureau of Reclamation (BOR)
  - **US Fish & Wildlife Service (FWS)**
  - National Park Service (NPS)
  - Office of Surface Mining Reclamation and Enforcement (OSMRE)
  - US Geological Survey (USGS)



Primary	U.S. DOI – Region 6 RRT (Acting REO)	Susan	King	susan_king@ios.doi.gov
Alternate	U.S. DOI – Region 7 RRT (REO Denver)	Courtney	Hoover	courtney_hoover@ios.doi.gov
BSEE	GOM - Oil Spill Preparedness Verification Branch	Gary	Petrae	gary.petrae@bsee.gov
FWS	National Contaminants Coord	Barry	Forsythe	barry_forsythe@fws.gov
FWS	Regional Contaminants Coord	Lynn	Wellman	lynn_wellman@fws.gov
BIA	HQ (“Central Office”)	BJ	Howerton	bj.howerton@bia.gov



# Executive Summary

<b>Challenges-</b>	<ul style="list-style-type: none"><li>➤ <b>Staff shortages</b><ul style="list-style-type: none"><li>➤ Local FWS Response staff in NM, TX, LA, AR</li><li>➤ DOI ABQ from 2 to 1</li></ul></li> <li>➤ <b>Competing priorities</b></li></ul>
<b>Lessons Learned-</b>	<ul style="list-style-type: none"><li>➤ <b>Emergency consultation tools</b> under Endangered Species Act <b>not available</b> during part of furlough</li></ul>
<b>Best Practices-</b>	<ul style="list-style-type: none"><li>➤ <b>Communication/collaboration</b> – e.g., Deer Park fire, FWS and NPS</li></ul>



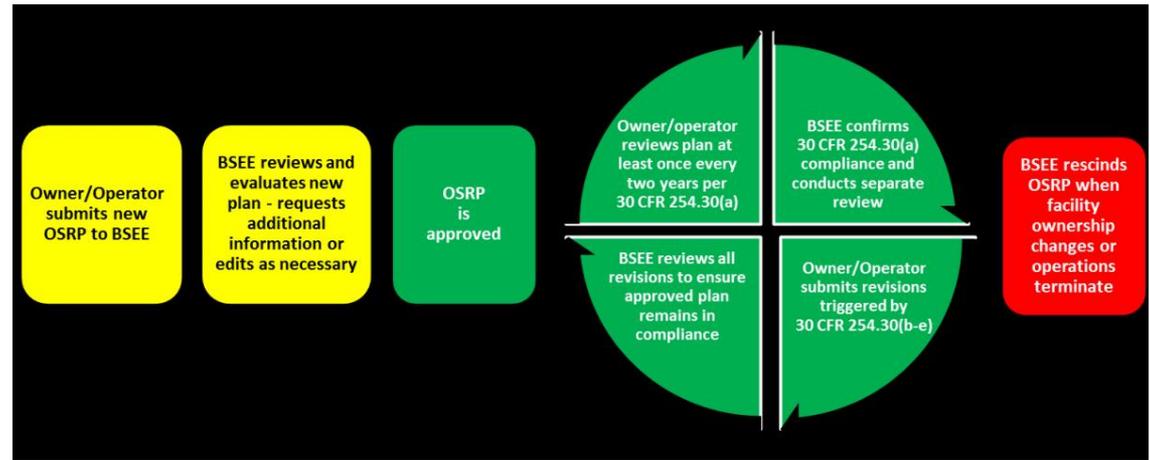
# Key Personnel Changes

Role	Incoming	Outgoing
RRT Member DOI (Regional Environmental Officer)	Acting – Susan King	Steve Spencer
FWS Contaminants Biologist – Coastal TX	Vacant (but approval to hire)	Clare Lee
FWS Contaminants Biologist – Region 4 (LA, AR)	Staff rotating monthly	Greg Masson
FWS Oil and Gas Specialist – Region 4	Jimmy Laurent	Barret Fortier



# Metrics/Trends/Challenges

- **1,572** National Response Center (NRC) Reports
  - Nov 9-Mar 14 (minus 5 weeks furlough)
- **119** Bureau Notifications: National Response Center (to **FWS**, **BSEE**, BLM, BIA, NPS)
- **68** Oil Spill Response Plans reviewed (BSEE, FY19)
- **12** Equipment preparedness verification inspections (depots) done (BSEE, FY19)
- **15** Response team exercises evaluated (BSEE, FY19)



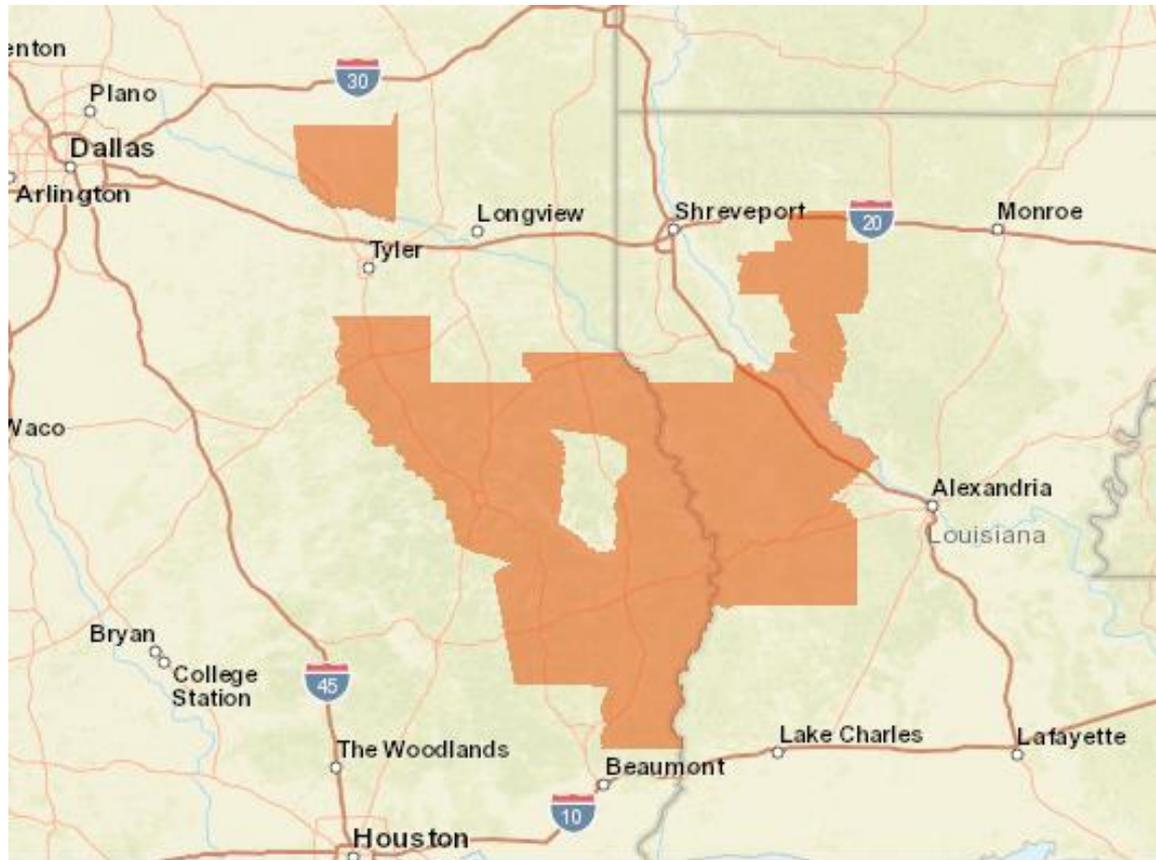


# Laws/Regulations/Policies

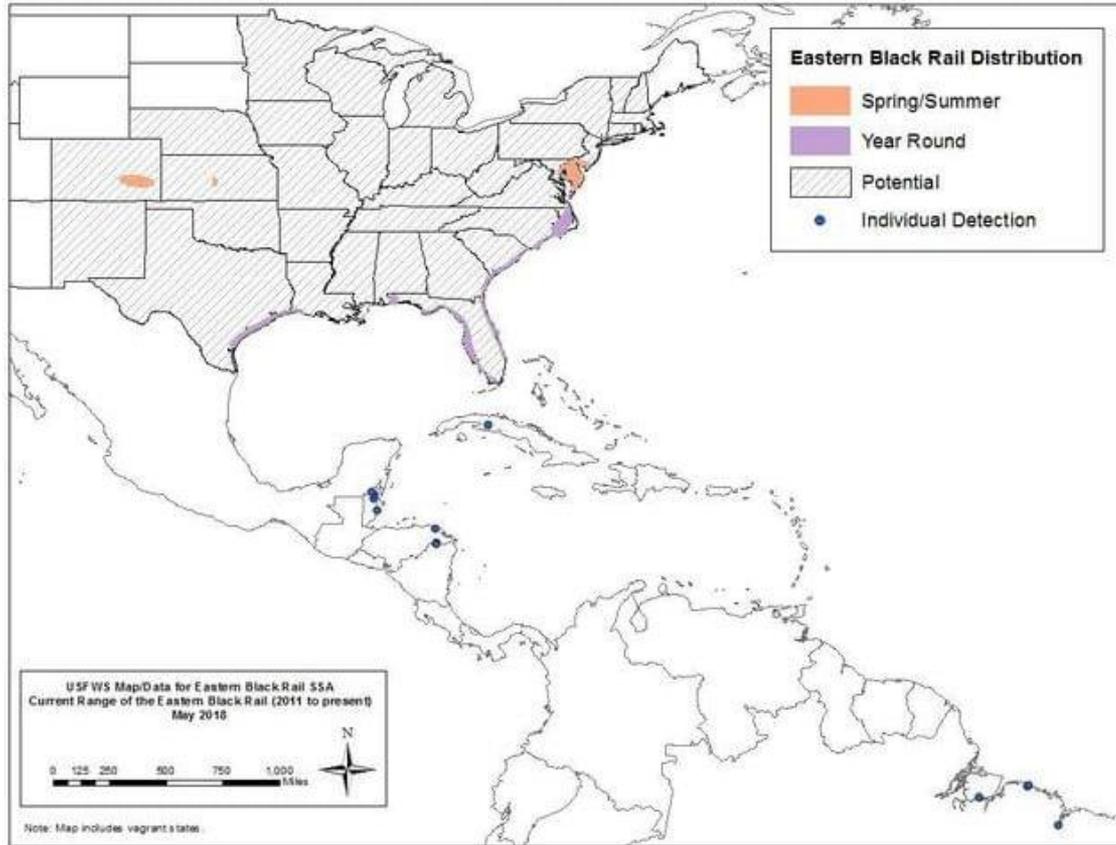
## Endangered Species Act - Updates

- ❖ **Louisiana pine snake** – listed as Threatened in 2018; habitat is LA, TX longleaf pine forests
- ❖ **Eastern black rail** – “Proposed Threatened” – marshes, all R 6 states





## Louisiana Pine Snake Distribution



## Eastern Black Rail Distribution

# Laws/Regulations/Policies (contd)

- New **Programmatic Agreement** on National Historic Preservation Act (NHPA) compliance for Oil Spill Response
  - USCG, EPA, DOI, and Advisory Council on Historic Preservation (ACHP) solicitors
  - ACHP to prepare initial draft
  - DOI submitted comments





# Accomplishments

## Training

Description	Dates
Inland Oil Spill Training	National – spaces open FL training

## Exercises/Workshops

Description	Dates
4 Govt-Initiated Unannounced Exercises	BSEE
18 Functional or Full-Scale Exercises evaluated	BSEE
Historic Properties Specialist (HPS) workshop	NPS

## Fed/State/Local planning and coordination efforts

Description	Dates
Endangered Species Act – emergency consultation support USCG, EPA	



# Outlook

## Training/Grants

Description	Dates
DOI Inland Oil Spills courses	National – spaces open Florida training 2019; Possibilities for FY 2020
Historic Properties Specialist training	First, Fall 2019 (in AK)
Inland Oil Spill Preparedness Program (IOSPP) grants	Requests for Proposals from Bureaus out

## Exercises/Workshops

Description	Dates
Hagerman Natl Wildlife Refuge, TX	Summer 2019

## Fed/State/Local planning and coordination efforts

Description	Dates
Endangered Species Act – protocols/process (DOI, FWS) for USCG	Spring-Summer 2019
National Historic Preservation Act – Programmatic Agreement	Continuing

# Federal Report Outs



## RRT-6 Spring 2019 Meeting

27 thru 29 March 2019



Primary	U.S. DOL / OSHA	Doug	Huddleston	<a href="mailto:Huddleston.Douglas@dol.gov">Huddleston.Douglas@dol.gov</a>
Alternate	U.S. DOL / OSHA	Josh	Flesher	<a href="mailto:Flesher.Josh@dol.gov">Flesher.Josh@dol.gov</a>



# Laws/Regulations/Policies

## Region VI – “Alerting LEPC’s of OSHA Violations involving Hazardous Chemicals”

OSHA Region VI has developed a system to notify local officials of violations regarding hazardous chemicals in their respective areas.

- 1910.106 Flammable Liquids
- 1910.119 Process Safety Management
- 1910.120(q) Hazardous Waste Operations and Emergency Response
- 1910.1000 Air Contaminants and Toxic Chemicals
- 1910.1200 Hazard Communication

The Area Director will screen all violations and selectively submit, via email, only those providing value to the purpose and mission of the area LEPC.



# Laws/Regulations/Policies

## **OSHA “Establishment Search” Tool Upgrade**

- OSHA is working on a system that will allow Local Emergency Planning Committee (LEPC) / State and Tribal Emergency Response Commission (SERC) / (TERC) officials to view OSHA citations involving hazardous chemicals at facilities located within their state or counties.

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- Region VI is working with the National Office to draft a Fact Sheet that provides instructions on how to use OSHA’s Establishment Search for local sites that have received hazardous chemical violations (1910.1200, 119, 109, 106, etc.).
- Once finalized, we plan to disseminate the fact sheet through LEPC’s / SERCs / TERCs, with the goal of reaching the interested LEPC/local-AHJs/Emergency-Responders/etc.



# Laws/Regulations/Policies

## **Regional Emphasis Program for Fertilizer Grade Ammonium Nitrate (FGAN) and Agricultural Anhydrous Ammonia Facilities**

- The intent of this emphasis program is to reduce injuries, illnesses and fatalities related to workers' exposures in fertilizer grade ammonium nitrate (FGAN) and agricultural anhydrous ammonia mixing/blending, storage, and distribution facilities.
- Outreach activities began October 1, 2018, and included letters to employers; training sessions; electronic information sharing activities; and public service announcements.
- Enforcement activities began January 1, 2019, and typically include an on-site inspection and review of production operations; working conditions; records; safety and health programs; chemical handling and use; and safety management systems, to identify and obtain corrections of workplace hazards at all applicable inspections.



# Laws/Regulations/Policies



## OSHA REGIONAL NOTICE

U.S. DEPARTMENT OF LABOR Occupational Safety and Health Administration

<b>DIRECTIVE NUMBER:</b> 02-02-031	<b>EFFECTIVE DATE:</b> October 1, 2018
<b>SUBJECT:</b> Regional Emphasis Program for Fertilizer Grade Ammonium Nitrate (FGAN) and Agricultural Anhydrous Ammonia Facilities	
<b>REGIONAL IDENTIFIER:</b> Region VI	

### ABSTRACT

- Purpose:** The purpose of this Notice is to establish a Regional Emphasis Program (REP) to reduce injuries, illnesses and fatalities related to workers' exposures in fertilizer grade ammonium nitrate (FGAN) and agricultural anhydrous ammonia mixing/blending, storage, and distribution facilities.
- Scope:** This Notice applies to all worksites in Arkansas, Louisiana, Oklahoma, and Texas, and those worksites in New Mexico that are under Federal Jurisdiction.
- References:** OSHA Instruction CPL 02-00-160, Field Operations Manual (FOM)  
OSHA Instruction CPL 04-00-001, Procedures for Approval of Local Emphasis Programs (LEPs)  
OSHA Instruction CPL 02-00-051, Enforcement Exemptions and Limitations under the Appropriations Act
- Cancellations:** None
- State Plan Impact:** Region VI 21(d) Consultation Project Offices in Arkansas, Louisiana, Oklahoma, and Texas will provide outreach, consultation services, and training to affected employers as requested. State Plans are strongly encouraged to adopt this program.
- Action Offices:** Region VI Area Offices  
Region VI Consultation Project Offices  
Dallas Regional Office
- Originating Office:** Dallas Regional Office – Enforcement Programs



# Laws/Regulations/Policies

## Chemical Facility Security and Safety Working Group Charter Background

The Working Group was initially established as a response to several catastrophic chemical facility incidents in accordance with Executive Order (EO) 13650 "Improving Chemical Facility Safety and Security" on 08/01/2013.

## Membership

The National Working Group consists of representatives from the following Agencies:

- Department of Homeland Security, (OHS), Office of Infrastructure Protection
- Department of Labor, (DOL), Occupational Safety and Health Administration (OSHA)
- Environmental Protection Agency's (EPA) Office of Land and Emergency Management

## Additional representatives include, but are not limited to:

- Department of Justice, Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF)
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- Department of Agriculture (USDA)



# Improving Chemical Facility Safety and Security

<https://www.osha.gov/chemicalexecutiveorder/>

The screenshot shows the OSHA website page for 'Improving Chemical Facility Safety and Security'. The page features a large banner with the title 'Actions to Improve Chemical Facility Safety and Security - A Shared Commitment' over an image of an industrial facility at night. The navigation bar includes 'Home', 'Five Thematic Action Areas', and 'Additional Resources'. A 'Topics' dropdown menu is open, listing: 'Emergency Planning Resources', 'Chemical and Facility Data', 'EPA Risk Management Program', 'OSHA Process Safety Management', 'DHS Chemical Facility Anti-Terrorism Standards', 'Ammonium Nitrate Guidance', and 'Best Practices'. The main content area includes a 'Home' section with links to 'Strengthening Community Planning and Preparedness', 'Enhancing Federal Operational Coordination', 'Improving Data Management', 'Modernizing Policies and Regulations', and 'Incorporating Stakeholder Feedback and Developing Best Practices'. Below this is a 'Status Reports' section with links to 'NEW! Status Report Fact Sheet 2015', 'Status Report Fact Sheet 2014', 'Executive Order Progress Update: February 2014', and 'Executive Order Progress Update: December 2013'. A 'Resource Materials' section provides information on public comments and materials available in the public docket for Section 6 of the Executive Order. Finally, an 'Executive Order' section lists links to 'Executive Order 13650: Improving Chemical Facility Safety and Security', 'EPA's Webpage on Executive Order 13650', and 'Comments and related documents on the Executive Order Listening Sessions'.



# Laws/Regulations/Policies

## OSHA Process Safety Management (PSM) Standard Update

- OSHA convened a Small Business Advocacy Review Panel in order to receive feedback on potential revisions to OSHA's Process Safety Management Program (PSM) standard. Report issued August 1, 2016 – No revisions from this action.
  - OSHA entered into the Small Business Regulatory Enforcement Fairness Act (SBREFA) process in October 2018.



# Investigations

## Valero Refining – HF Alkylation Unit Main Fractionator Pipe Explosion

- This incident was investigated by our Houston South Area Office
- The facility was a Refinery Unit - the incident occurred at the Alkylation Unit, downstream of the Gasoline-producing Fluidic Catalytic Cracking Unit (FCCU)

The operation involved a depropanizer process, which produces propane that is used in the alkylation unit's reaction tower. On April 19, 2018, a rupture in a 10-inch feed piping that serviced the Main Fractionator tower, resulted in a release of liquid gas, and ignition of the vapor cloud causing fire and explosion at the Alkylation Light Ends Unit. One (1) employee was sent to Hospital for observation and released, and four (4) Contractors sustained minor injuries while exiting the area where the explosion occurred.

OSHA issued a Citation that carried four (4) instances:

- 29 CFR 1910.119(j)(2) – Written procedures
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# Findings

## Valero Refining – HF Alkylation Unit Main Fractionator Pipe Explosion

**Synopsis / Hazards:** Valero implemented Risk Based Inspection (RBI) and the use of Condition Monitoring Locations (CML) located throughout the piping circuits. Key hazards were the substances used (due to the presence of highly corrosive substance Hydrofluoric Acid (HF)) and pressures.

- American Petroleum Institute (API) 570 required the evaluation of pressures within circuit piping upon discovery of system “degradation.”
- American Petroleum Institute (API) 574 required that a “remaining life assessment” (evaluation) be conducted with alert thickness was reached.
- Risk Based Inspection (RBI) program for the circuit piping was thought to be implemented in the year 2015. An “alert thickness” value was set, and CML’s in place, however, the adherence to inspection date(s) were not adhered to. This resulted in the compromise of piping circuits, and ultimate failure and rupture of the piping, ignition and fire.



# Valero Refining – HF Alkylation Unit Photos



Photo Courtesy of Reuters



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Photo of the Alkylation Light Ends Unit where explosion and fire occurred



**Photo of the Main Fractionator tower and point of rupture of the 10" feed piping**



**Expanded view of the Fractionator Tower and fire damage to associated feed / return piping**



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Photo of thinning walls of the 10" feed piping that fed the Fractionator Tower

# Questions??

**Doug Huddleston, CSP**

**OSHA Region VI**

**Office Number: 972-850-4167**

**[huddleston.douglas@dol.gov](mailto:huddleston.douglas@dol.gov)**

# Federal Report Outs



## RRT-6 Spring 2019 Meeting

27 thru 29 March 2019



Primary	U.S. DOL / OSHA	Doug	Huddleston	<a href="mailto:Huddleston.Douglas@dol.gov">Huddleston.Douglas@dol.gov</a>
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**Office Number: 972-850-4167**

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# Federal Report Outs



## RRT-6 Spring 2019 Meeting

27-28 March 2019



Alternate	U.S. DHS / FEMA	David	Bell	<a href="mailto:david.bell@fema.dhs.gov">david.bell@fema.dhs.gov</a>
Alternate	U.S. DHS / FEMA	Kenneth	Clark	<a href="mailto:kennethg.clark@fema.dhs.gov">kennethg.clark@fema.dhs.gov</a>
Primary	U.S. DHS / FEMA	Christine	Hanson	<a href="mailto:christine.hanson@fema.dhs.gov">christine.hanson@fema.dhs.gov</a>
Alternate	U.S. DHS / FEMA	Kevin	Jaynes	<a href="mailto:kevin.jaynes@fema.dhs.gov">kevin.jaynes@fema.dhs.gov</a>
Alternate	U.S. DHS / FEMA	Bullett	Young	<a href="mailto:laverm.young@fema.dhs.gov">laverm.young@fema.dhs.gov</a>



# Key Personnel Changes

Role	Incoming	Outgoing
Hurricane Program Manager	TBD	John Boesch
Operational Planner	TBD	Jennifer Superales
Response Division Deputy Director	TBD	Andrew Sabata



# Executive Summary

## Lessons Learned:

- 1) Socialization of WebEOC capabilities  
→ increased usage, utility
- 2) Deliberate plans need increased socialization
- 3) RRCC roster must be furlough-proof

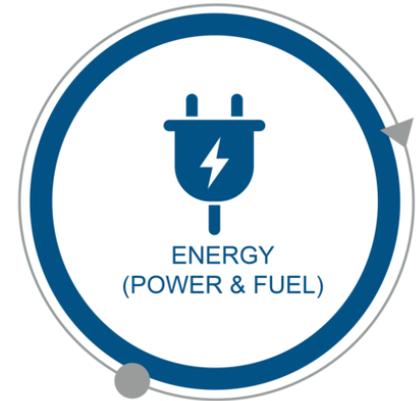
## Best Practices:

- 1) Mission Ready Packages
- 2) Logistics Capability Assessment Tool (LCAT) now influencing creation of Operations Capability Assessment Tool (OCAT), est. completion TBD



# Laws/Regulations/Policies

- Lifelines (reporting)





# Metrics/Trends/Challenges

- 0 RRCC Activations
- 2 IMAT deployments (Typhoon Wutip; DR-4416-TX)
- RRCC RISM → ICS Transition moving rapidly; associated IT systems markedly less so.



# Accomplishments

## Training

Description	Dates
NWIRT, Barksdale AFB	5-7 FEB
RadResponder Webinar	19 MAR

## Exercises/Workshops

Description	Dates
ICS Transition Brief/RRCC Readiness Assessment Drill - Denton	23 JAN
Joint Civil & DoD CBRNE Symposium – Washington DC	6-8 MAR
CUSEC TTX – Springfield	20 MAR
LA GOHSEP Hurricane ROC Drill	20 MAR

## Fed/State/Local planning and coordination efforts

Description	Dates
Shaken Fury MSEL Synch Meeting	12-14 MAR
New Orleans Evacuation Transportation Forum	21 MAR
FEMA R6-USCG D8 Response Coordination Meeting	22 MAR



# Outlook

## Training

Description	Dates
ChemResponder Webinars	9-10 APR
Emergency Services Training	10 APR
RadResponder Webinar	16 APR

## Exercises/Workshops

Description	Dates
GOHSEP/LANG Hurricane Exercise/DRX – Baton Rouge	2-3 APR
Shaken Fury R6 ROC Drill – Denton	11 APR
NUWAIX 19 – PANTEX - Amarillo	24-25 APR
Ardent Sentry – various	29 MAY-7 JUN
Shaken Fury - various	3-7 JUN

## Fed/State/Local planning and coordination efforts

Description	Dates
TDEM Conference – San Antonio	15-18 APR
RISC Meeting, R6 Denton	21-23 MAY



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# ***Navy Region Southeast Report Out***

(Informational)

March 2019

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**ENGAGE ENABLE SUSTAIN**



# Points of Contact

---

- **Primary**

John E. Baxter, PE

NRSE Navy On-Scene Coordinator (NOSC-R / FOSC-R)

Building 135, Room 233

Box 30

Jacksonville, FL 32212-0030

Direct: +1 904 542 6981 (DSN 942)

Mobile: +1 904 482 8397

john.baxter3@navy.mil

- **Alternate**

Pending Hiring Action

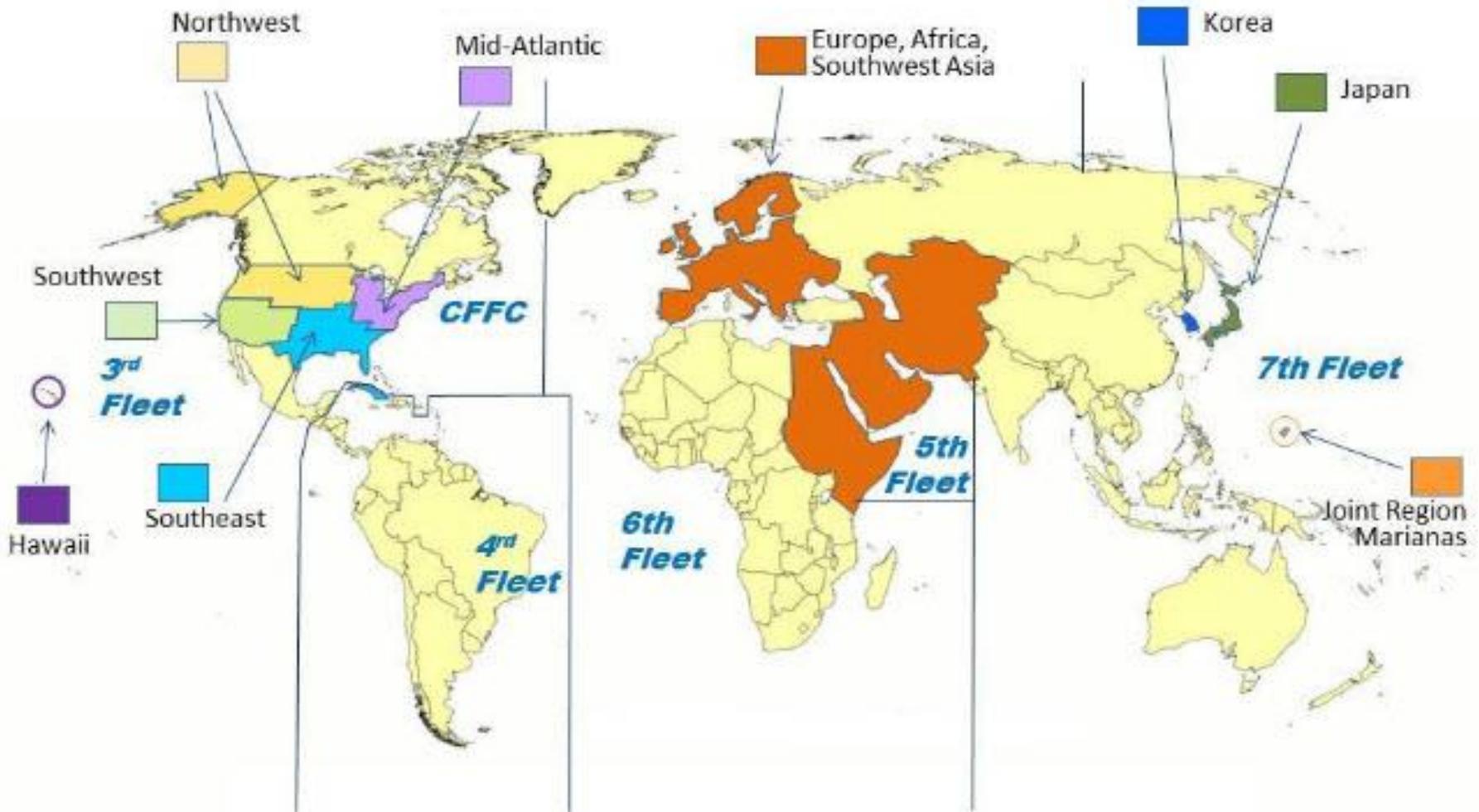
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**ENGAGE ENABLE SUSTAIN**



# Navy OSC's



**ENGAGE ENABLE SUSTAIN**



# Area of Responsibility





# Executive Summary

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- **Responsibilities**

- Geographic AOR (e.g. 12 States plus OCONUS)
- Four RRTs (e.g. CRRT, RRT-4, RRT-6, RRT-7)
- 18 annual preparedness TTXs
- Real-world responses

- **Lessons Learned**

- Federal, State, Local and Tribal relationships

- **Best Practices**

- Training Partnerships (e.g. Army, DOE, USCG, EPA, NOAA)
- Use of both A/E and ER/OSRO contractors on responses

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**ENGAGE ENABLE SUSTAIN**



# Key Personnel Changes

---

- **Incoming**
  - Deputy On-Scene Coordinator (OSC)
  - Pending Hiring Action
  - Anticipate June 2019
- **Outgoing**
  - Mike Davenport
  - Collateral RRT and Spill Response Duties

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**ENGAGE ENABLE SUSTAIN**



# Metrics/Trends/Challenges

---

- **December 2018**
  - NAS JRB Ft. Worth
- **Miscellaneous**
  - NAS Corpus Christi
  - NAS Kingsville
  - NAS JRB New Orleans
- **Trends**
  - Aircraft Mishaps
  - Natural Disasters (e.g. Hurricanes)

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**ENGAGE ENABLE SUSTAIN**



# **Laws/Regulations/Policies**

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- **No significant OSC impacts within the past 6 months regarding:**
  - Preparedness
  - Prevention
  - Response

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**ENGAGE ENABLE SUSTAIN**



# Accomplishments

---

- **Training**
  - ICS300
  - ICS400
- **Exercises**
  - NAS Corpus Christi (November 2018)
  - NAS JRB Ft. Worth (August 2018)
  - NAS Kingsville (August 2018)
  - NAS JRB New Orleans (January 2019)

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**ENGAGE ENABLE SUSTAIN**



# Outlook

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- **Training**

- Revised Incident Management Team (IMT) Courses
- Increased Unified Command (UC) Integration
- Addition of Functional Exercises (FTX)

- **Exercises**

- NAS Corpus Christi (June 2019)
- NAS JRB Ft. Worth (August 2019)
- NAS JRB Kingsville (June 2019)
- NAS JRB New Orleans (January 2020)

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**ENGAGE ENABLE SUSTAIN**



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# Questions?

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**ENGAGE ENABLE SUSTAIN**

# Federal Report Outs



## RRT-6 Spring 2019 Meeting

27 Mar 2019



Role	RRT Member	Contact Info
Co-Chair	Mr. Michael Sams	(504) 671-2234 <a href="mailto:Michael.K.Sams@uscg.mil">Michael.K.Sams@uscg.mil</a>
Co-Chair Alternate	LT Keyth Pankau	(504) 671-2235 <a href="mailto:Keyth.A.Pankau@uscg.mil">Keyth.A.Pankau@uscg.mil</a>
Coordinator	Mr. Todd Peterson	(504) 671-2232 <a href="mailto:Todd.M.Peterson@uscg.mil">Todd.M.Peterson@uscg.mil</a>

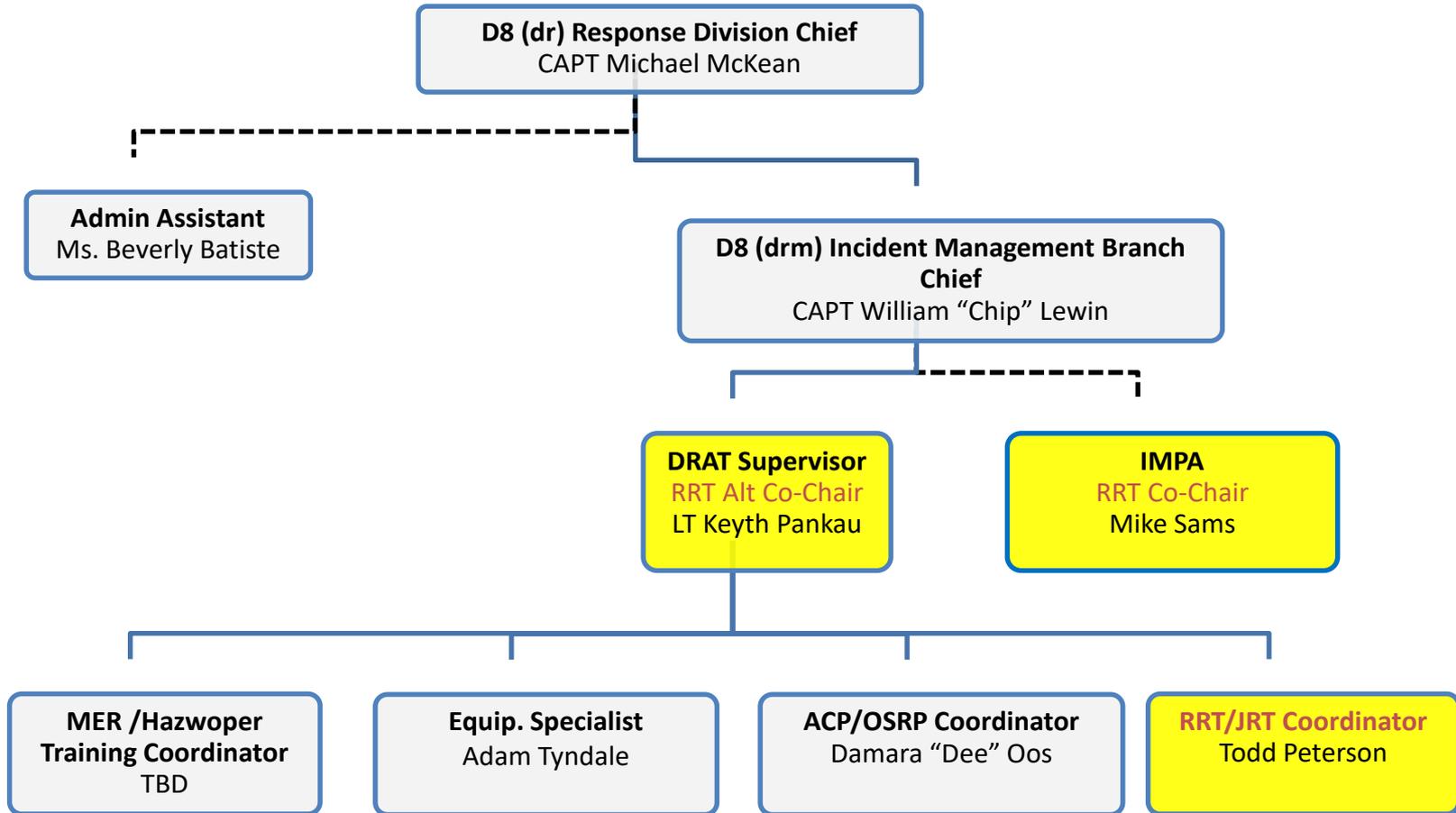


# Overview

- National Review Panel – ACPs
- Hurricane Michael
- Shaken Fury 2019
- Consultations
- High Water - Inland Rivers



# D8 (drm) Incident Management Branch





# Laws/Regulations/Policies

- **CG Headquarters:**
  - Penn-Tulis ESF-10 Memo
  - ESF-10 Annex in coastal ACPs
- **CGD 8 Policy Messages:**
  - Pollution Planning, Preparedness, and Response areas of emphasis
  - ACP Policy Update



# Accomplishments

Since last RRT meeting  
08-09 Nov 2018

## Fed/State/Local planning and coordination efforts

Description	Location	Dates
28 <sup>th</sup> Annual Clean Gulf Conference	New Orleans, LA	13-15 Nov 2018
NOAA Sea Grant Workshop	Houma, LA	5 Dec 2018
2019 Gulf of Mexico Oil Spill and Ecosystem Science Conference (GoMOSES)	New Orleans, LA	4-7 Feb 2019
Preparedness Assessment Visit (PAV)	Sector New Orleans & MSU Houma, LA	4-15 Feb 2019
Consultation Alignment Mtg with CGD 8 NOAA SSCs	New Orleans, LA	22 Feb 2019
Preparedness Assessment Visit (PAV) – Spot Check	Pittsburgh, PA	20 Mar 2019
Clean Gulf Conference Planning Mtg	New Orleans, LA	19 Mar 2019



# Outlook

Until Next RRT meeting

06-07 Nov 2019

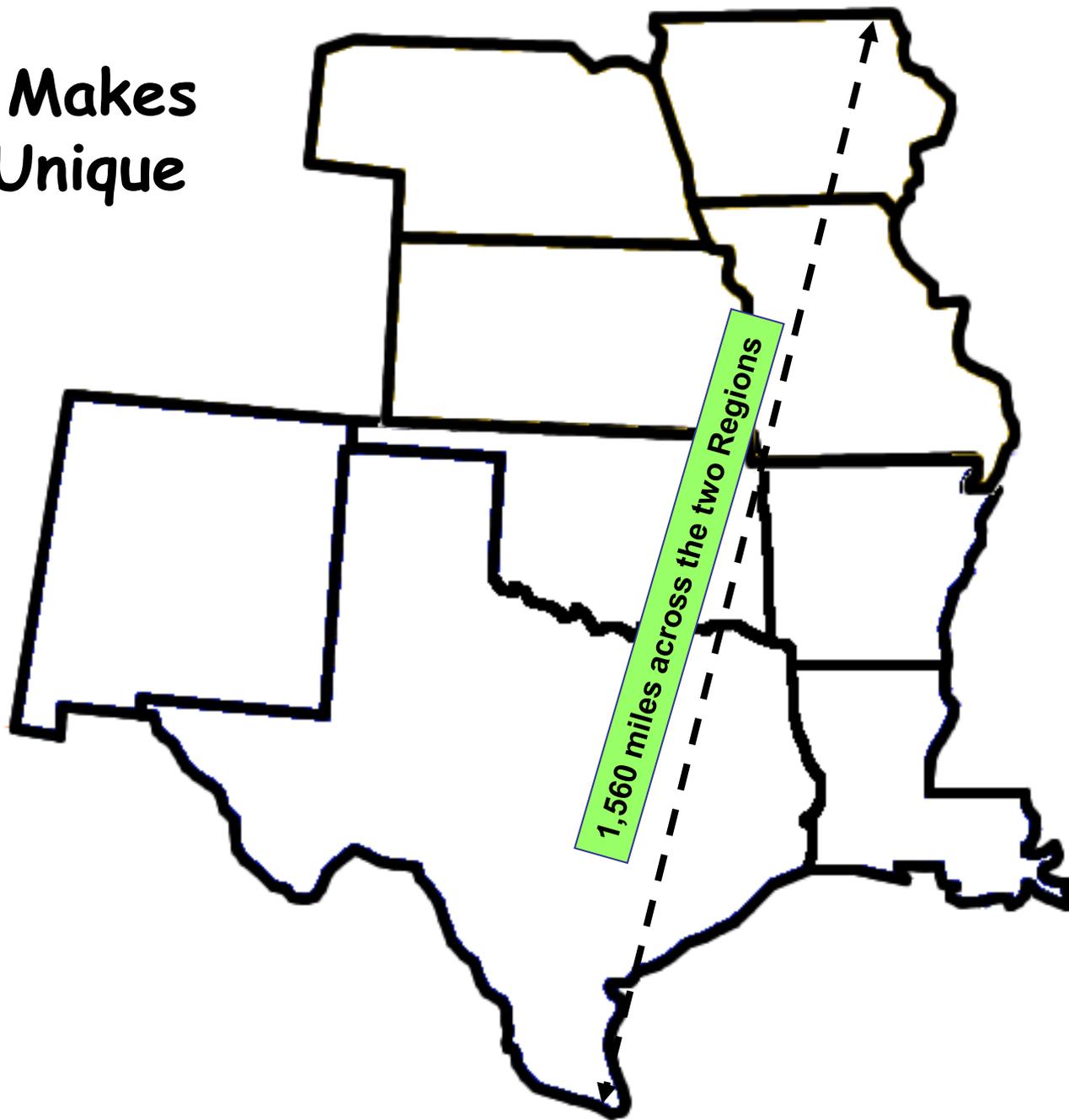
## Fed/State/Local planning and coordination efforts

Description	Location	Dates
ICS 620 Area Command	New Orleans, LA	9-11 Apr 2019
3 <sup>rd</sup> Annual Clean Waterways Conference	Cincinnati, OH	16-18 Apr 2019
RRT-8 Meeting	Lakewood, CO	24-25 Apr 2019
2019 National Response Team (NRT) - Regional Response Team (RRT) Co-Chairs Meeting	Chicago, IL	30 Apr -2 May 2019
NOAA Sea Grant Workshop	Mobile, AL	6-7 May 2019
RRT-4 Meeting	Cape Canaveral, FL	7-9 May 2019
Texas Statewide AC Meeting	The Woodlands, TX	21 May 2019
Shaken Fury 19 – Earthquake Exercise	Various Locations	3-7 Jun 2019
Louisiana Statewide AC Meeting	Baton Rouge, LA	5 Jun 2019
29 <sup>th</sup> Annual Clean Gulf Conference	New Orleans, LA	28-30 Oct 2019

# What Makes Us Unique



# What Makes Us Unique



# What Makes Us Unique



Total Public Roads Miles by State		
Arkansas	102,616	(17)
Iowa	114,741	(12)
Kansas	142,047	(4)
Louisiana	61,411	(34)
Missouri	131,807	(6)
Nebraska	94,988	(21)
New Mexico	69,111	(32)
Oklahoma	112,988	(15)
Texas	313,656	(1)
Total	1,143,365	miles

Total Land Area by State		
Arkansas	135,765	(30)
Iowa	145,743	(26)
Kansas	213,100	(15)
Louisiana	125,434	(32)
Missouri	170,304	(22)
Nebraska	200,345	(16)
New Mexico	314,915	(5)
Oklahoma	180,533	(21)
Texas	696,621	(2)
Total	2,182,760	miles



Total Population by State		
Arkansas	3,081,825	(33)
Iowa	3,156,145	(31)
Kansas	2,911,505	(35)
Louisiana	4,659,978	(25)
Missouri	6,126,452	(18)
Nebraska	1,929,268	(37)
New Mexico	2,095,428	(36)
Oklahoma	3,943,079	(28)
Texas	28,701,845	(2)
Total	56,605,525	persons

# What Makes Us Unique



Total Rail Road Miles by State		
Arkansas	2,797	(25)
Iowa	3,897	(11)
Kansas	4,891	(6)
Louisiana	2,858	(24)
Missouri	4,019	(10)
Nebraska	3,236	(19)
New Mexico	1,835	(34)
Oklahoma	3,273	(16)
Texas	10,384	(1)
Total	37,190	miles

Total Pipeline Miles by State		
Arkansas	30,171	(24)
Iowa	30,937	(23)
Kansas	47,658	(13)
Louisiana	66,090	(6)
Missouri	37,189	(18)
Nebraska	21,464	(33)
New Mexico	26,933	(26)
Oklahoma	53,121	(9)
Texas	225,592	(1)
Total	539,155	miles



Total Refining Capacity by State		
Arkansas	90,500	(27)
Iowa	0	(N/A)
Kansas	389,920	(12)
Louisiana	3,302,507	(2)
Missouri	0	(N/A)
Nebraska	0	(N/A)
New Mexico	136,600	(24)
Oklahoma	521,800	(8)
Texas	5,701,414	(1)
Total	10,142,741	bbl / day

# What Makes Us Unique



FRP Facilities by State		
Arkansas	204	
Iowa	93	
Kansas	69	
Louisiana	1,080	
Missouri	48	
Nebraska	43	
New Mexico	132	
Oklahoma	648	
Texas	2,194	
Total	4,511	Facilities

EPCRA Tier II Reports by State		
Arkansas	4,000	
Iowa	4,500	
Kansas	20,000	
Louisiana	16,600	
Missouri	8,000	
Nebraska	3,000	
New Mexico	18,000	
Oklahoma	50,000	
Texas	80,000	
Total	204,100	Facilities



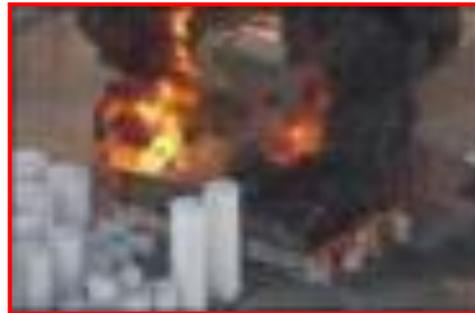
RMP Facilities by State		
Arkansas	167	(27)
Iowa	835	(4)
Kansas	630	(5)
Louisiana	318	(13)
Missouri	367	(10)
Nebraska	434	(7)
New Mexico	59	(40)
Oklahoma	301	(14)
Texas	1,459	(1)
Total		Facilities

# What Makes Us Unique



Avg. Tornadoes per Year by State		
Arkansas	38	(13)
Iowa	49	(8)
Kansas	92	(2)
Louisiana	37	(14)
Missouri	47	(10)
Nebraska	55	(5)
New Mexico	10	(31)
Oklahoma	65	(3)
Texas	147	(1)
Total	540	miles

Disaster Declarations by State		
Arkansas	70	(19)
Iowa	65	(27)
Kansas	72	(17)
Louisiana	79	(14)
Missouri	69	(22)
Nebraska	64	(28)
New Mexico	87	(9)
Oklahoma	189	(3)
Texas	352	(1)
Total	1,047	Declarations



NRC Release Notifications to EPA (2016-18)		
Arkansas	688	(28)
Iowa	538	(31)
Kansas	545	(30)
Louisiana	2,118	(5)
Missouri	693	(27)
Nebraska	309	(37)
New Mexico	193	(40)
Oklahoma	1,375	(13)
Texas	6,223	(1)
Total	13,168	Reports

# Region 6 Response to Major Incidents



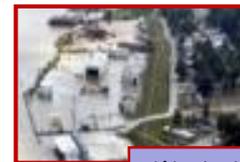
Joplin Tornado



Missouri River Flooding



Port Neal Iowa Explosion



Mississippi River Flooding

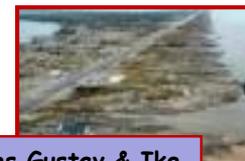


Hurricanes Katrina & Rita  
\$430M, 1,500 personnel,  
4 years

Region 6 and 7 have received  $\approx 39\%$  of all Presidentially-declared emergencies and major disasters -- the most in the country



OKC Bombing Response



Hurricanes Gustav & Ike  
\$42M, 280 personnel,  
4 months



West Texas Explosion



Deep Water Horizon Oil Spill  
\$27M, 120 personnel, 5-1/2 months



Columbia Shuttle Recovery  
\$ 46M, 750 personnel, 90 days

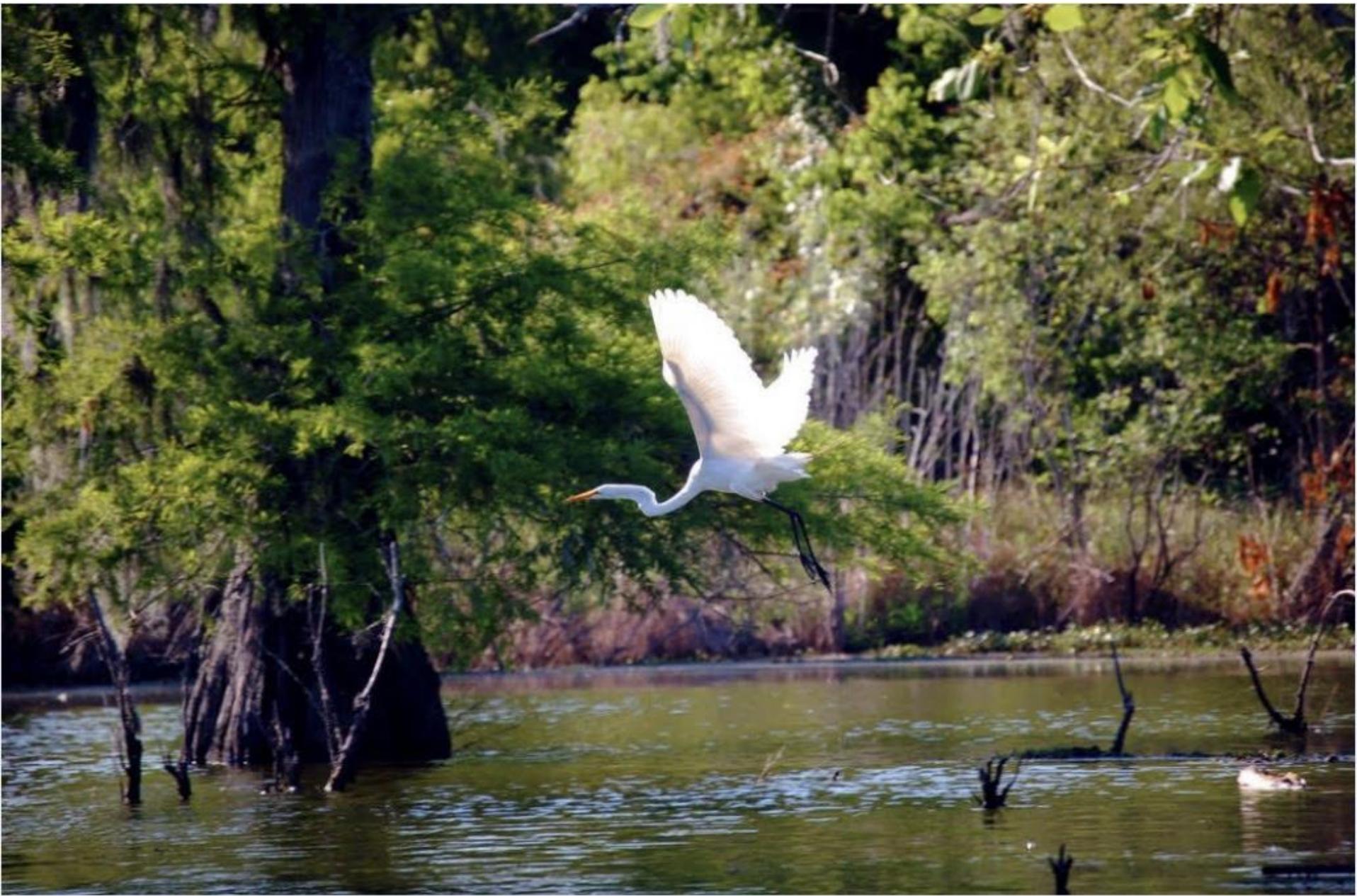
















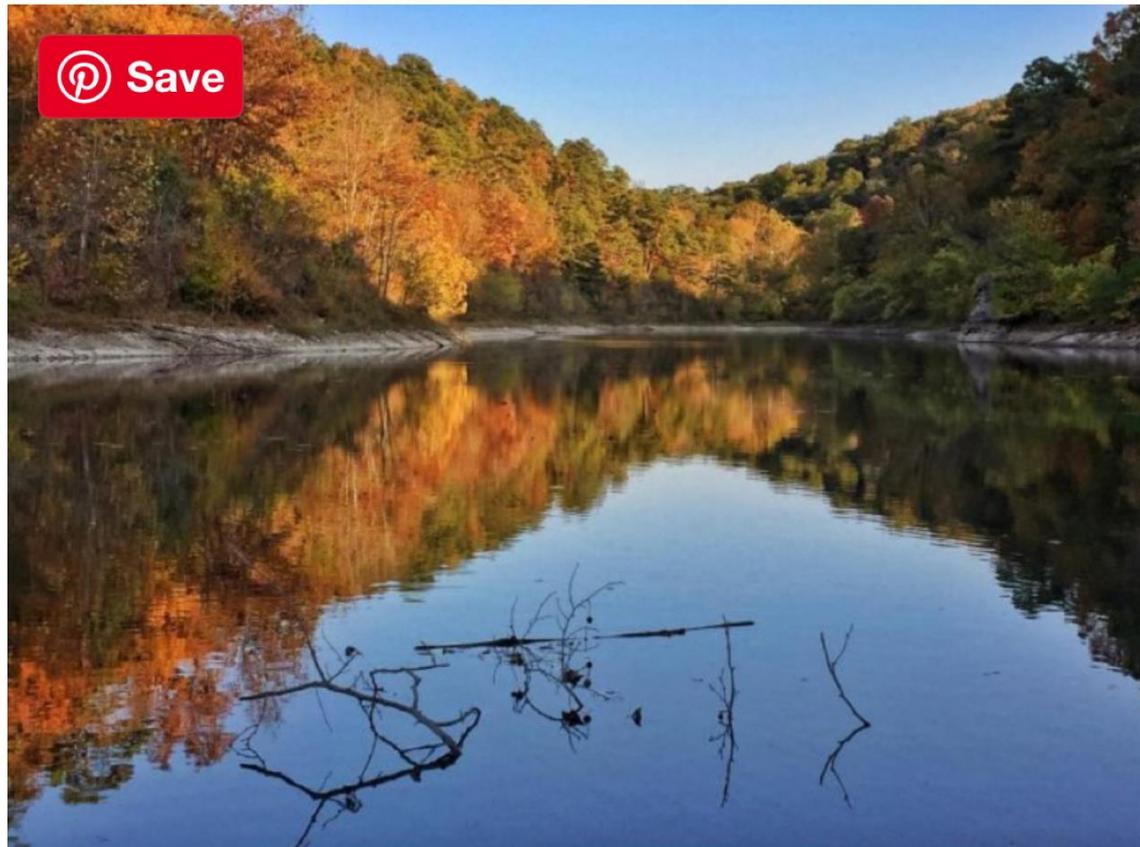








**Black Bass Lake Park will certainly be one of your favorite gems of Eureka Springs.**









## 4. Keeper of the Plains (Wichita)



### **3. Tallgrass Prairie National Preserve (Strong City)**





# 1. BBQ



# 1. The Gateway Arch



🔍 ozarks missouri



## 1. Gooey butter cake



Flickr/Annie

Mmm...mmm...nothing beats gooey butter cake sprinkled with powdered sugar. You won't find anything like this sweet treat anywhere but Missouri unless, of course, you decide to make your own.

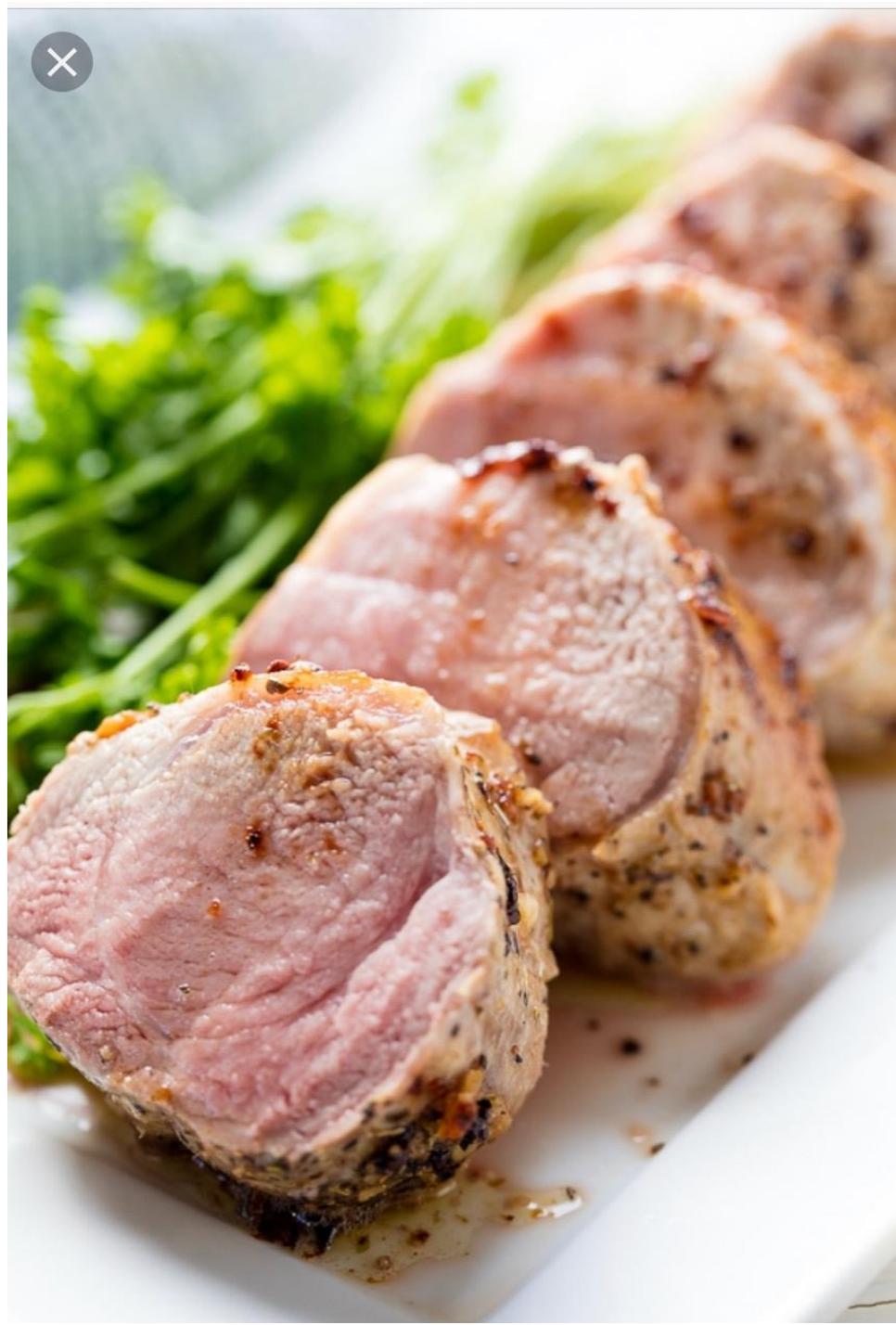
## 2. St. Louis-style pizza



## 9. The Bridges of Madison County



Andy Langerer/Flickr





istockphoto.com



# 2019 Joint Regional Response Team (RRT) 6 and 7

Presentation by:

Jim Wilkinson, CUSEC Executive Director

March 27, 2019



# Presentation Overview

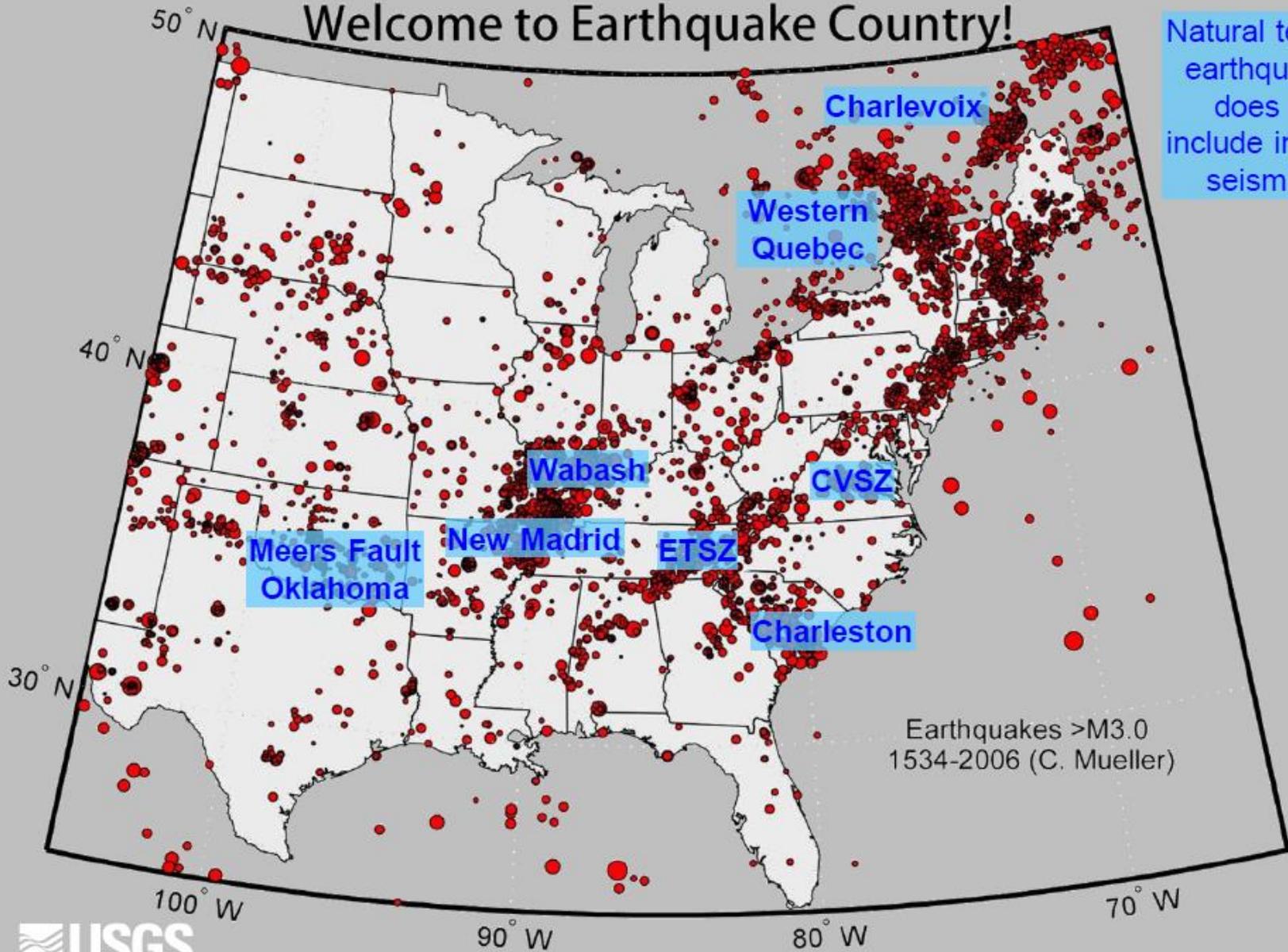
- Earthquake Basics
- CUSEC
- Seismic Risk –
  - Response Challenges
  - Long Term Recover
- Modeled Risk Assessment
- Upcoming Events

# Earthquake Basics

- New Madrid Seismic Zone – Most active region east of the Rockies
  - Wabash Valley Seismic Zone
  - East TN Seismic Zone
  - Oklahoma, Kansas, Texas, - induced earthquakes
    - 2,130 earthquakes in the past year in OK
    - 88 earthquakes in the past year in Dallas, TX area
- NMSZ – starts about 35 miles north west of Memphis and extends into southern IL. – Is comprised of 3 segments
- NMSZ averages 150 – 200 earthquakes a year
- Largest area of *Liquefaction* in the world

# Welcome to Earthquake Country!

Natural tectonic earthquakes;  
does not include induced seismicity



# RESEARCH:

Large earthquakes in 1450 and 900 A.D.

The average time between the large earthquakes is about 500 years

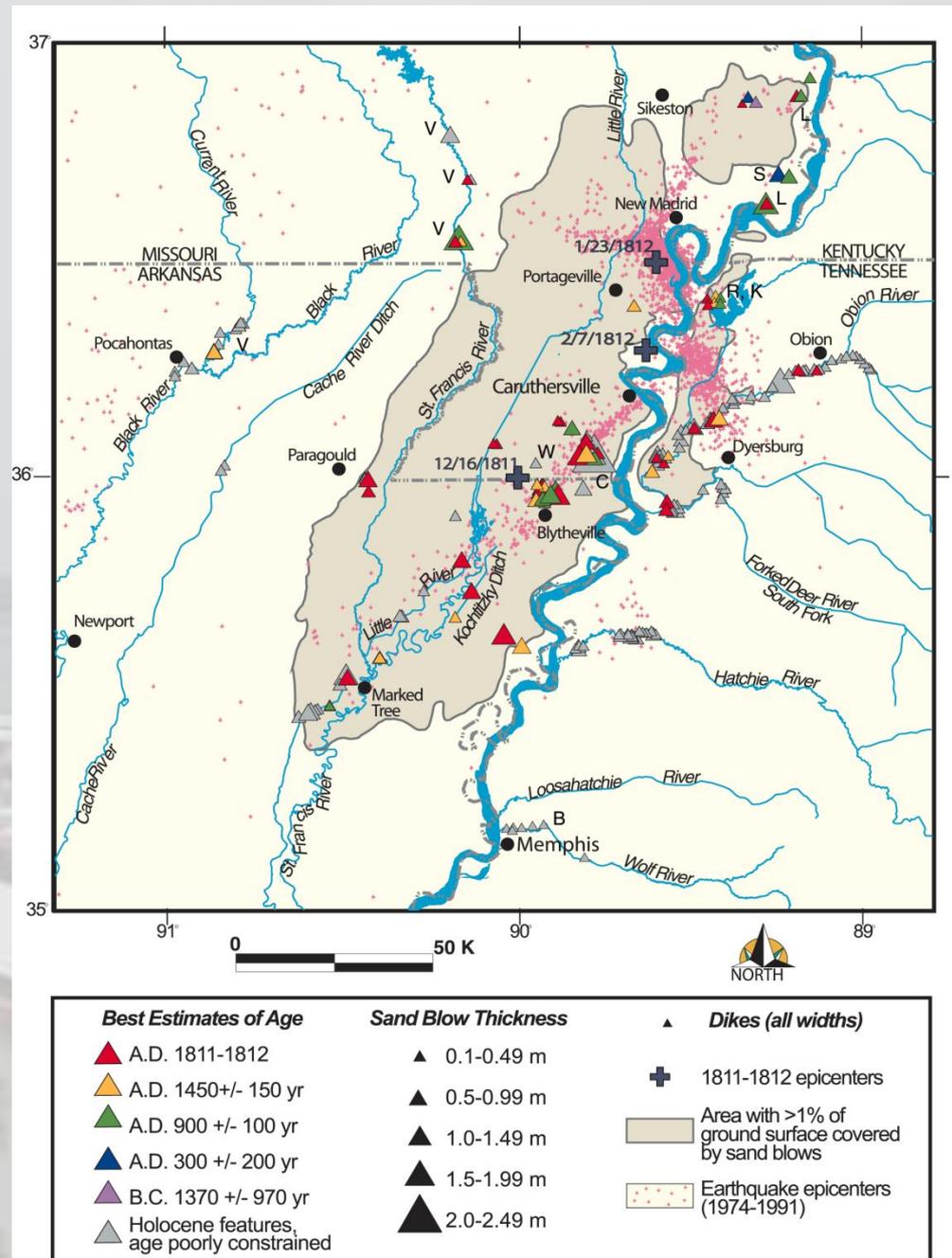
The prehistoric earthquakes were approximately the same size as the 1811-1812 earthquakes

Each may actually represent sequences of large earthquakes, as in 1811-1812

Dec 16, 1811

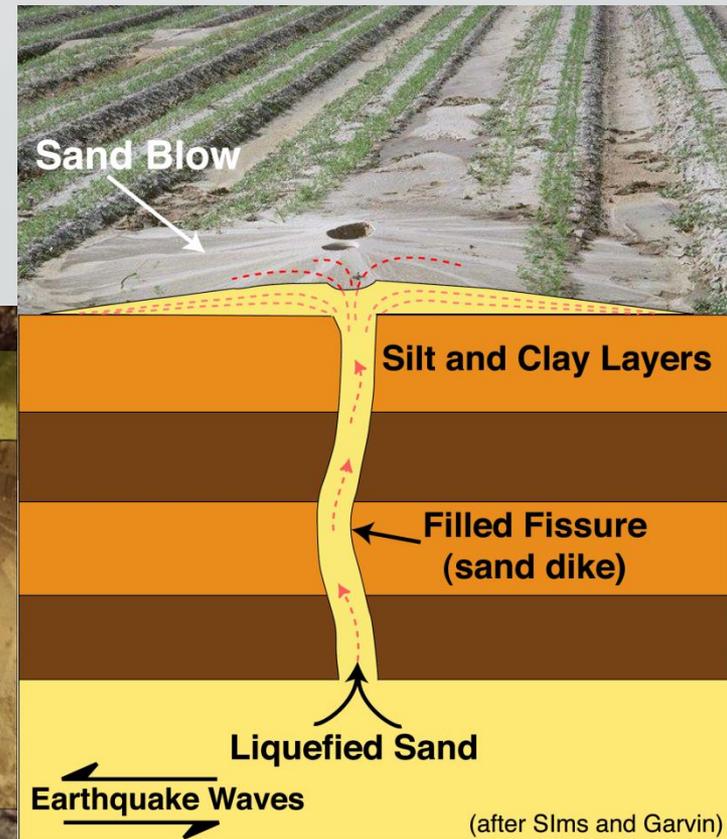
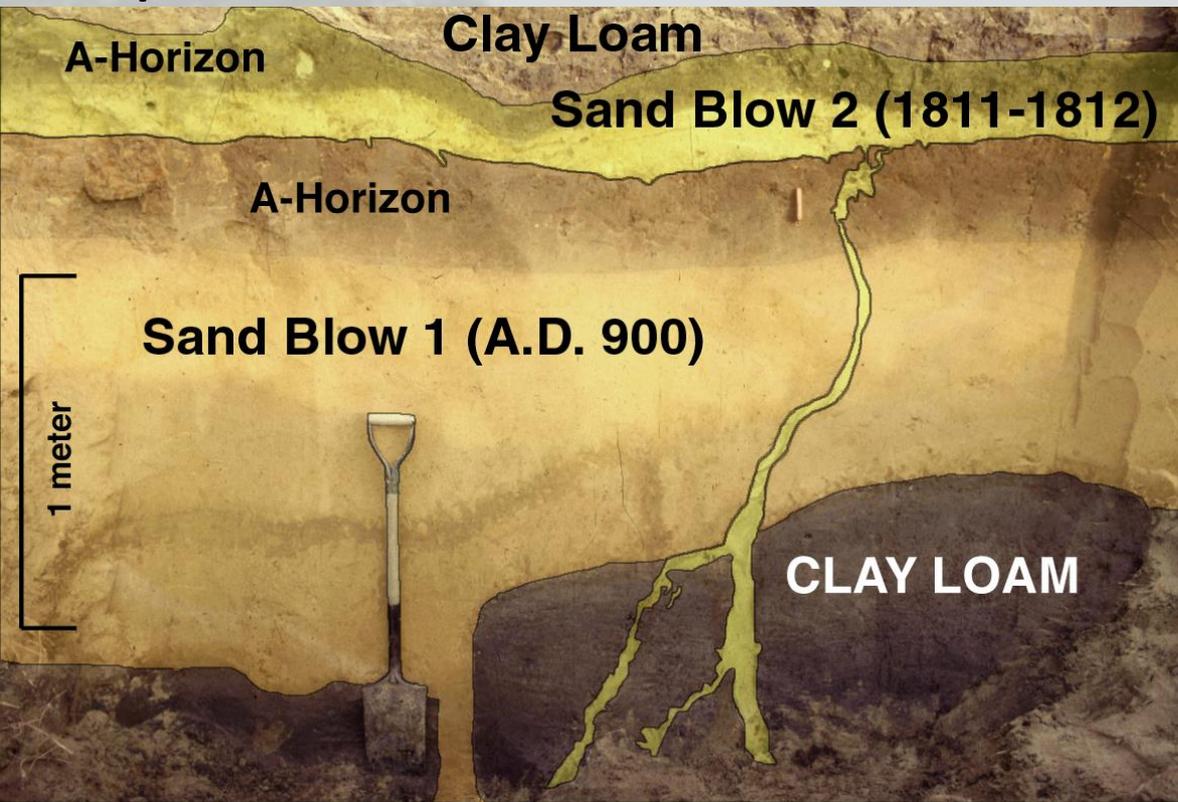
Jan 23, 1812

Feb 7, 1812



# How Do Researchers Determine Past Events?

## Liquefaction



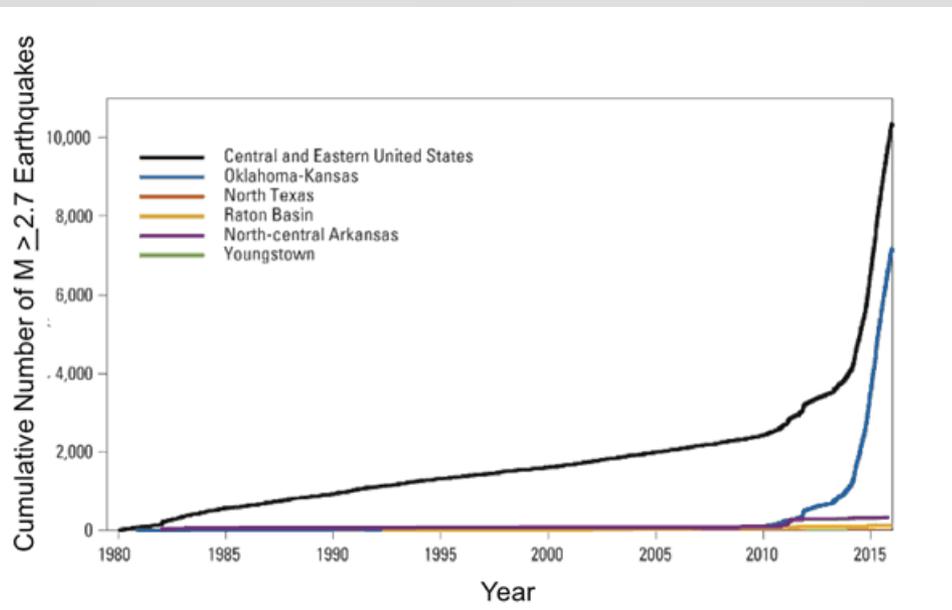
# Large area susceptible to liquefaction



# Liquefaction Caused Damage



# Induced Earthquakes



- Can occur anywhere in the U.S. that conditions support
- 1960's Rocky Mountain Arsenal
- Jan 4, 2016 5.0 Cushing, OK 5.0 destroyed 14 homes and injured two
- Sept 3, 2016 Pawnee 5.8 Damage recorded 300 miles away in Kansas

From 1980 to 2000, Oklahoma averaged only two earthquakes a year of magnitude 2.7 or higher. That number jumped to about 2,500 in 2014, then to 4,000 in 2015.

# What Makes the Central US Unique Geologically?

- Low reoccurrence interval but high impact
- Large area of unconsolidated soils
- Felt/impacted area 20 times larger than similar events in the western U.S.
- Large earthquakes occur in clusters
- Large area susceptible to liquefaction

# Secondary Hazards

- Landslides
- Liquefaction
- Disruption of ground water supplies
- Changes to river channels
- Hazardous Materials Release
- Localized flooding
- Fire
- Ground displacement – lateral spreading

# So what does all this mean in terms of earthquake probabilities?

- Magnitude ~7.5 – 8.0  
(similar to 1811-1812)  
Approximately 7-10%  
Low probability, high consequence
- Magnitude 6.0 or greater  
(similar to 1843 Marked Tree, AR and 1895 Charleston , M0)  
Approximately 25-40%  
Higher probability, still significant impacts

**Broad agreement in earth science community that NMSZ continues to pose significant and ongoing hazard**

# History behind CUSEC

- Scientific Community Outlined the Seismic Hazard for the Central U.S. during the 70's – unlike other areas of the country that have over a 100 years of understanding of their seismic hazard and corresponding plans
- Scientific data showed a regional impact unlike any other place in the United States –
- 1977 NEHRP Created -Earthquake Funding was now available
- FEMA / and Seven States most at risk by this hazard looked at the “regional” threat starting in 1981.
- CUSEC Formed in 1983

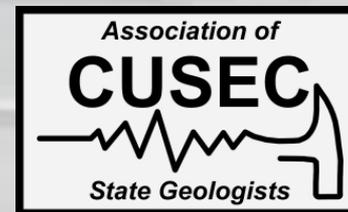
# CUSEC

- One of three EM Consortia
- Only consortia with a single hazard that impacts all its states
- Purpose was different from the beginning
- Structured like an Emergency Management Agency



# CUSEC Structure

- Board of Directors - State EMA Directors
- Eight Member States –AL, AR, KY, IL, IN, MO, MS, & TN
- Ten Associate
- Working Groups: State EMA -PIO's, Ops Chiefs, State Hazard Mitigation Officers, Donations/Volunteer planners, Exercise Officers, Technology Working Group,
- Organizational Associations
  - Association of CUSEC State Geologists
  - CUSEC State Transportation Task Force
  - CUSEC State National Guard Task Force
- Cover Four FEMA Regions – IV, V, VI, & VII
- Contracting is handled through FEMA HQ
- Serve as the alternate assembly point for both  
Memphis USACE and Memphis Coast Guard Office

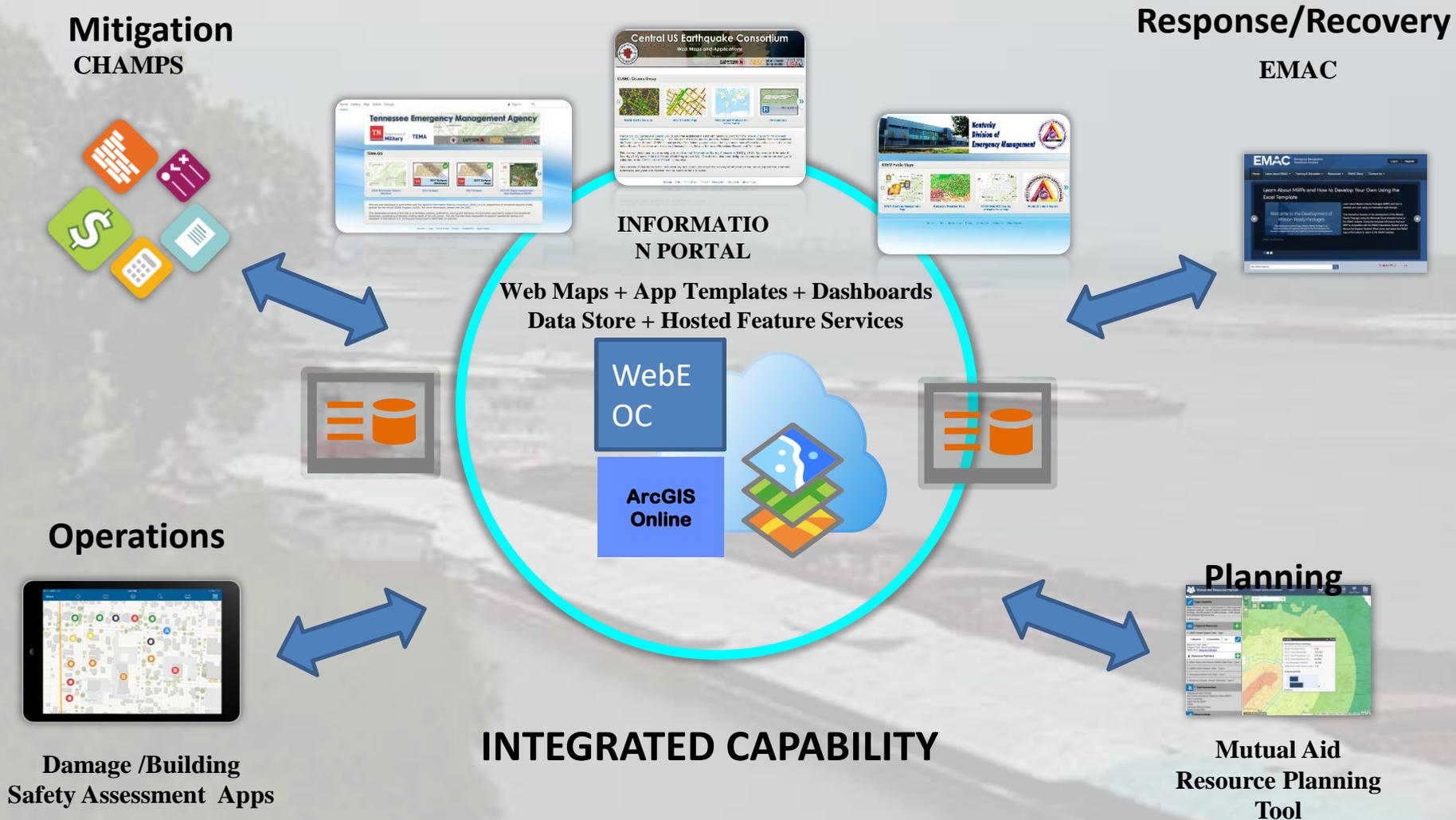


# CUSEC Goals

- To raise the level of **public awareness** of the earthquake hazard in the central U.S.
- To promote the adoption of **mitigation programs, tools, and techniques** to reduce vulnerability
- To foster **multi-state planning for response and recovery** to a damaging earthquake
- To promote the **application of research and lessons learned** to improve the level of preparedness

# Sample Activity

## Regional Information Sharing Portal



# The Seismic Risk in the Central US

What makes this risk potentially  
“Catastrophic”?

# Problems on a Good Day – *What if...*



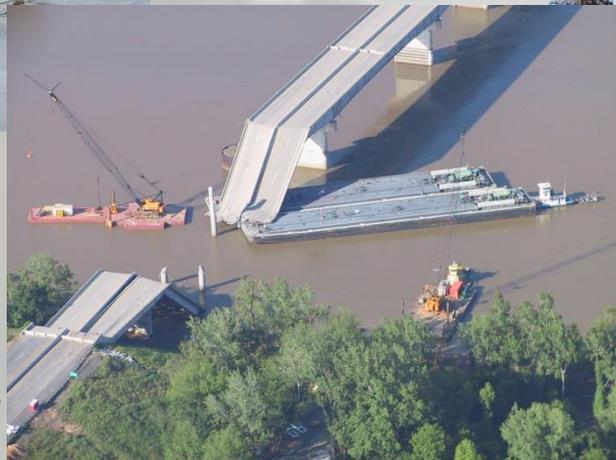
Lance Murphy – Commercial Appeal Photographer



J. Wilkinson CUSEC



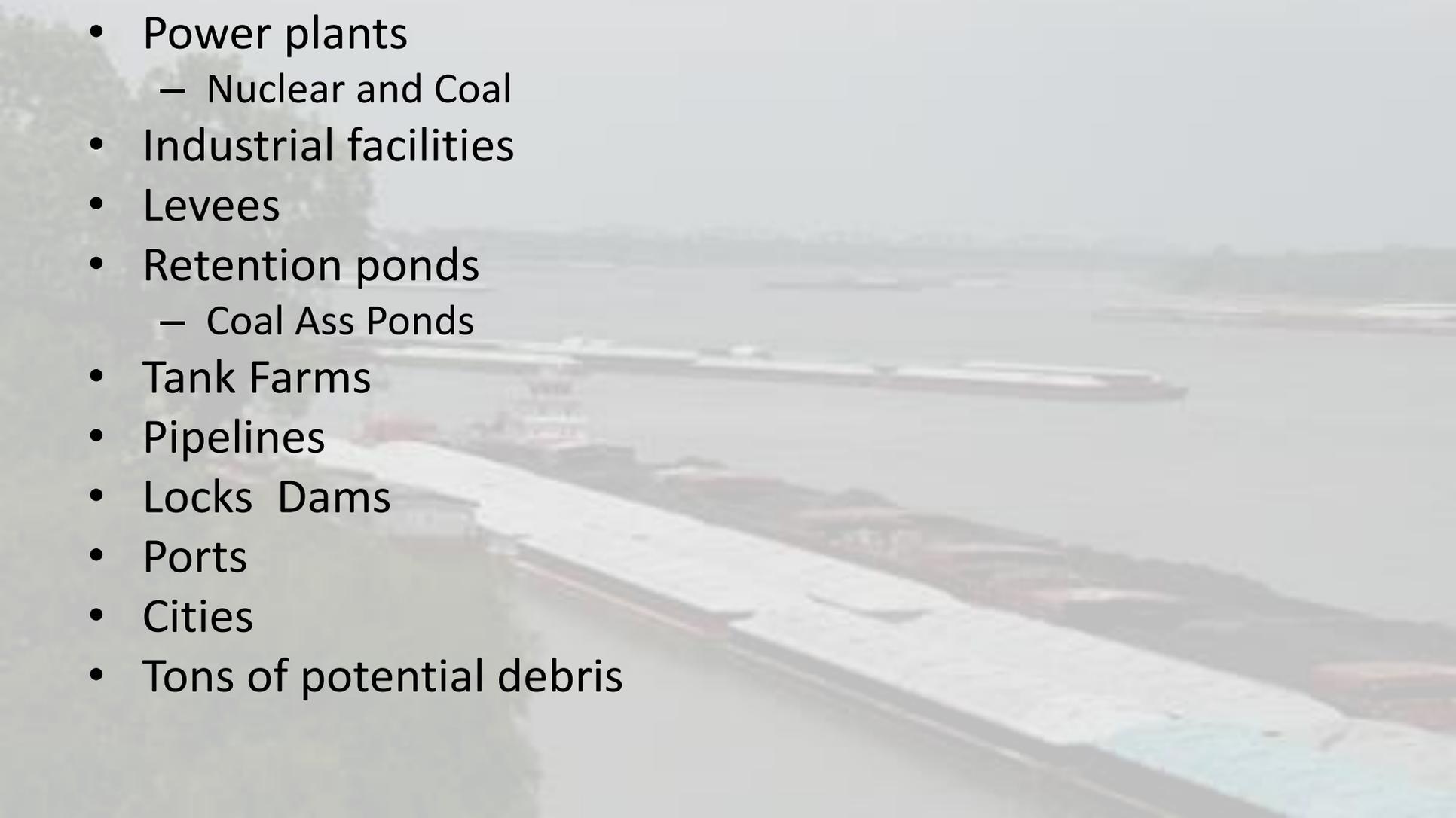
J. Wilkinson CUSEC



Wikipedia

# What's Vulnerable? Anything not built to a current seismic standard!

- Power plants
  - Nuclear and Coal
- Industrial facilities
- Levees
- Retention ponds
  - Coal Ass Ponds
- Tank Farms
- Pipelines
- Locks Dams
- Ports
- Cities
- Tons of potential debris



# Impact to the River Systems Especially Problematic



The Red Deer River is seen in an aerial photo taken after a pipeline carrying crude started spilling oil into a tributary creek near Sundre, Alberta on June 8, 2012. (Photo courtesy of Global Calgary)

# River Systems of 1811 are vastly different from today



H. Bosse, draughtsman with the Corps of Engineers, 1883-1891. (*U. S. Army Corps of Engineers, St. Paul District*)

- Still a major transportation corridor
- Navigational and control systems are now critical elements
- Industrial / commercial / community developments increase associated risk



# Damage to Ports



USGS/EERI Haiti EQ Damage report



FEMA photo



# Rivers are going to be choked with debris



Man made debris - I-35 bridge



Photo credit: Mark Moran  
Noxen, Pennsylvania



North Shore Emergency Management

Up and Down Stream of the Impact zone will become a parking lot



# Downstream Considerations

- Management of river traffic
  - Vessels that would have been going up stream
  - Vessels operating in area
  - Response vessels
- Contaminates in the river
  - Hazardous materials
  - Debris
  - Large volumes of soil/silt – i.e. sandbars, islands, landslides,
- River channel conditions may be altered
  - River channel upstream could shift

# Response Challenges

- Differing priorities / mandates
- Damage over a large geographical area
  - Multiple jurisdictions requesting aid
  - Differing needs / level of response needed
- Disruption to the infrastructure
  - Slows response
  - Restricts access
- Hazardous conditions
- Adjudication of resources
  - Tents
  - Generators
  - Food/Water

# Long Term Recovery Issues

- Legal Issues
  - Debris from I-35 remained 3 years after the collapse
- Design/Code Modifications
  - Flood control
  - Land use
  - Building
- Volume of Repairs / Reconstruction Projects
  - Limited resources
  - Limited labor
  - Lose of River Channels
  - Prioritization challenges
    - Bridges, levees, drainage/irrigation canals, locks

# Modeled Risk

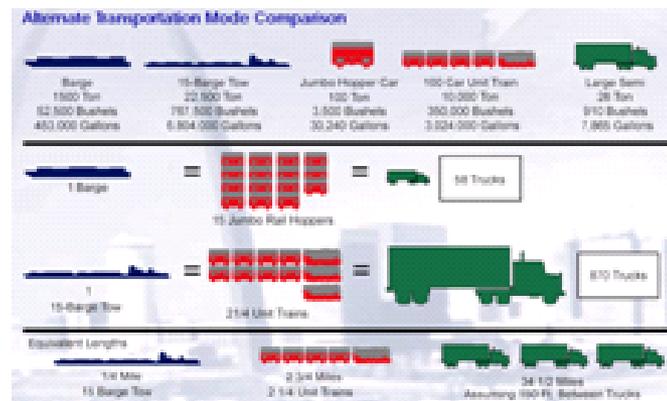
- Public Sector Modeling
  - HAZUS
    - FEMA
      - Mid America Earthquake Center
      - Sandia National Labs
      - Argonne National Labs
    - State EMA's
- Private Sector Modeling
  - RMS
  - EQECAT Catastrophe Models
  - others



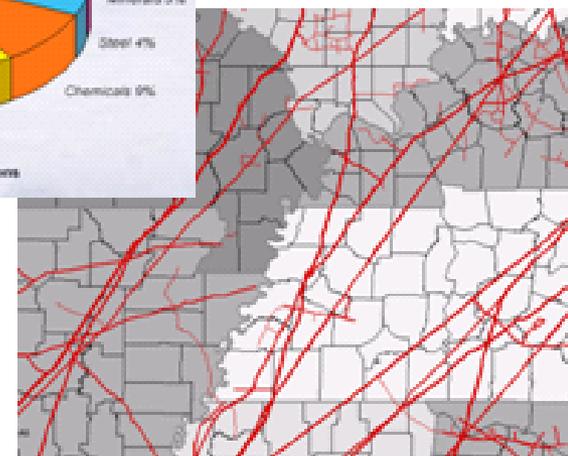
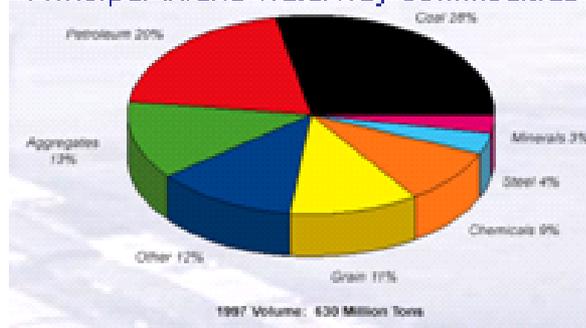
# Consequences: Earthquake on New Madrid Fault

## National Commodity Flow and Economic Consequences

- Effects of a significant quake in the NMSZ would have wide-ranging impact on the Nation's economy
  - A mere 10-day disruption to the local economies of those areas structurally damaged by the 1895 quake (e.g., due to fallen power lines) would have a \$50B impact (2/3 of this outside the affected region)
  - Commodity flows (pipeline, rail, highway, barge) through the impacted area likely disrupted for a much longer period
    - Infrastructure for alternative modes likely damaged as well
    - Alternative modes, even if available, are resource constrained
  - Products/services impacted include
    - Fuel (NG, Oil) for the upper Midwest (seasonally dependent)
    - Coal supplies to generation plants in the Southeast and Midwest
    - Food exports (seasonally dependent)
    - Availability of critical transportation facilities (e.g., Memphis FedEx SuperHub)
    - Availability of routes for insertion of emergency services personnel

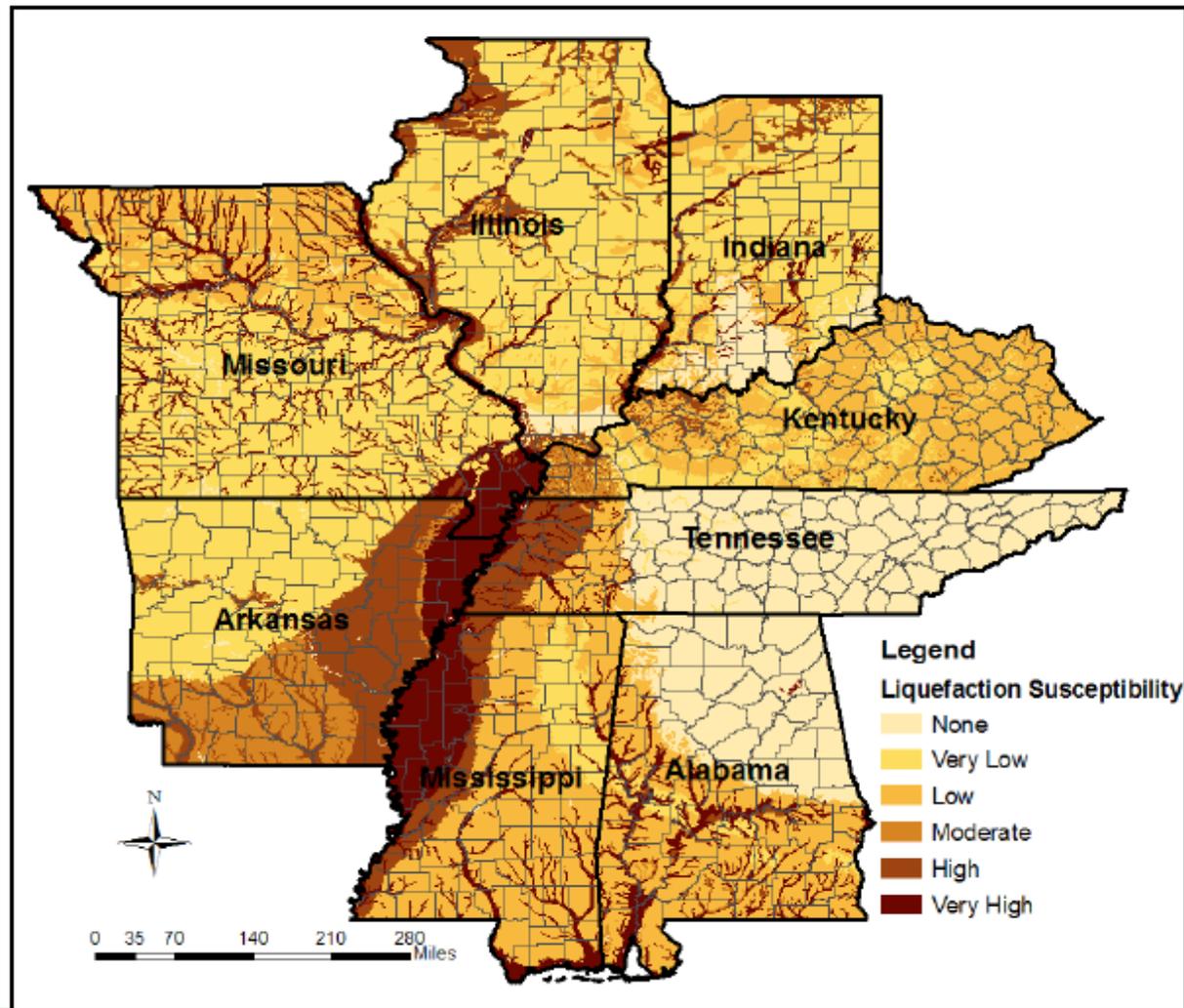


Principal Inland Waterway Commodities



Natural Gas Pipelines in Seismic Zone (Platts)

# Regional Liquefaction Susceptibility



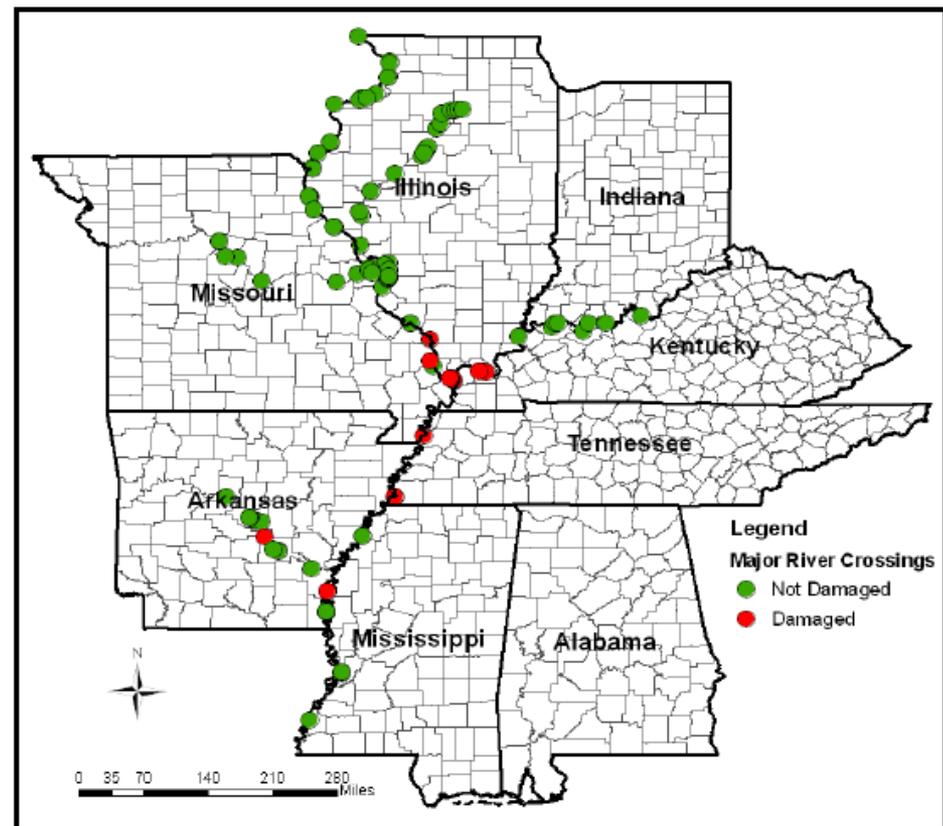
It is not recommended that staging areas or response activities are placed in areas specified as 'High' or 'Very High' liquefaction susceptibility. Areas with 'None', 'Very Low', or 'Low' are better suited for these types of activities.

# Transportation Lifelines

Several major river crossing along the Mississippi, Ohio, and Arkansas Rivers are damaged, including:

- Harahan, Frisco and Memphis/Arkansas Bridges in Memphis, TN
- Caruthersville Bridge in Dyersburg, TN
- Charles W. Dean Bridge from Arkansas City, AR
- Mississippi and Ohio River bridges at Cairo, IL
- I-24 Bridge from Metropolis, IL
- Irvin S. Cobb Bridge in Paducah, KY
- I-57 Bridge at Cairo, IL
- Bill Emerson Memorial Bridge at Cape Girardeau, MO

Additionally, many bridges along major interstates in the region are damaged, such as I-55, I-57, I-24, I-40, I-155 and several US Routes



	Highway Bridges	
	Total	Damaged
Alabama	17,491	0
Arkansas	14,060	1,083
Illinois	29,967	157
Indiana	20,387	0
Kentucky	15,418	262
Mississippi	18,293	6
Missouri	27,258	1,004
Tennessee	22,897	1,035
<b>TOTAL</b>	<b>165,771</b>	<b>3,547</b>

	Airports	
	Total	Damaged
Alabama	469	0
Arkansas	335	37
Illinois	935	20
Indiana	675	0
Kentucky	222	13
Mississippi	257	0
Missouri	562	28
Tennessee	318	45
<b>TOTAL</b>	<b>3,773</b>	<b>143</b>

	Ports	
	Total	Damaged
Alabama	327	0
Arkansas	103	17
Illinois	517	20
Indiana	100	0
Kentucky	301	61
Mississippi	222	0
Missouri	232	52
Tennessee	202	82
<b>TOTAL</b>	<b>2,004</b>	<b>232</b>

	Railway Bridges	
	Total	Damaged
Alabama	118	0
Arkansas	68	11
Illinois	1,030	11
Indiana	92	0
Kentucky	166	3
Mississippi	63	0
Missouri	200	2
Tennessee	151	2
<b>TOTAL</b>	<b>1,888</b>	<b>29</b>

# Other Critical Infrastructure

- *Dams, Levees, and Hazardous Materials facilities are the only forms of additional infrastructure considered*
- *All damage to these types of infrastructure occur in northeast AR, southern IL, western KY, southeast MO, an western TN*
- *Flooding due to dam/levee failure is most likely in areas of most sever shaking and substantial displacement from liquefaction*
- *Common materials stored at hazmat sites include:*
  - *Metal compounds: nickel, zinc, manganese, lead, chromium, and copper*
  - *Liquid chemicals: hydrochloric acid, sulfuric acid, ammonia, benzene, glycol ether, ethylene, formaldehyde, methanol, nitric acid, and toluene*
  - *Other: arsenic, barium, chlorine and cyanide compounds*
- *Hazmat facilities do not include nuclear facilities. Please consult the additional maps provided for nuclear facility locations.*

	Dams	
	Total	Damaged
Alabama	2,233	0
Arkansas	1,228	55
Illinois	1,562	31
Indiana	1,187	0
Kentucky	1,196	53
Mississippi	3,544	0
Missouri	5,408	55
Tennessee	1,215	133
<b>TOTAL</b>	<b>17,573</b>	<b>327</b>

	Levees	
	Total	Damaged
Alabama	5	0
Arkansas	124	20
Illinois	576	34
Indiana	101	0
Kentucky	90	10
Mississippi	50	0
Missouri	369	25
Tennessee	11	7
<b>TOTAL</b>	<b>1,326</b>	<b>96</b>

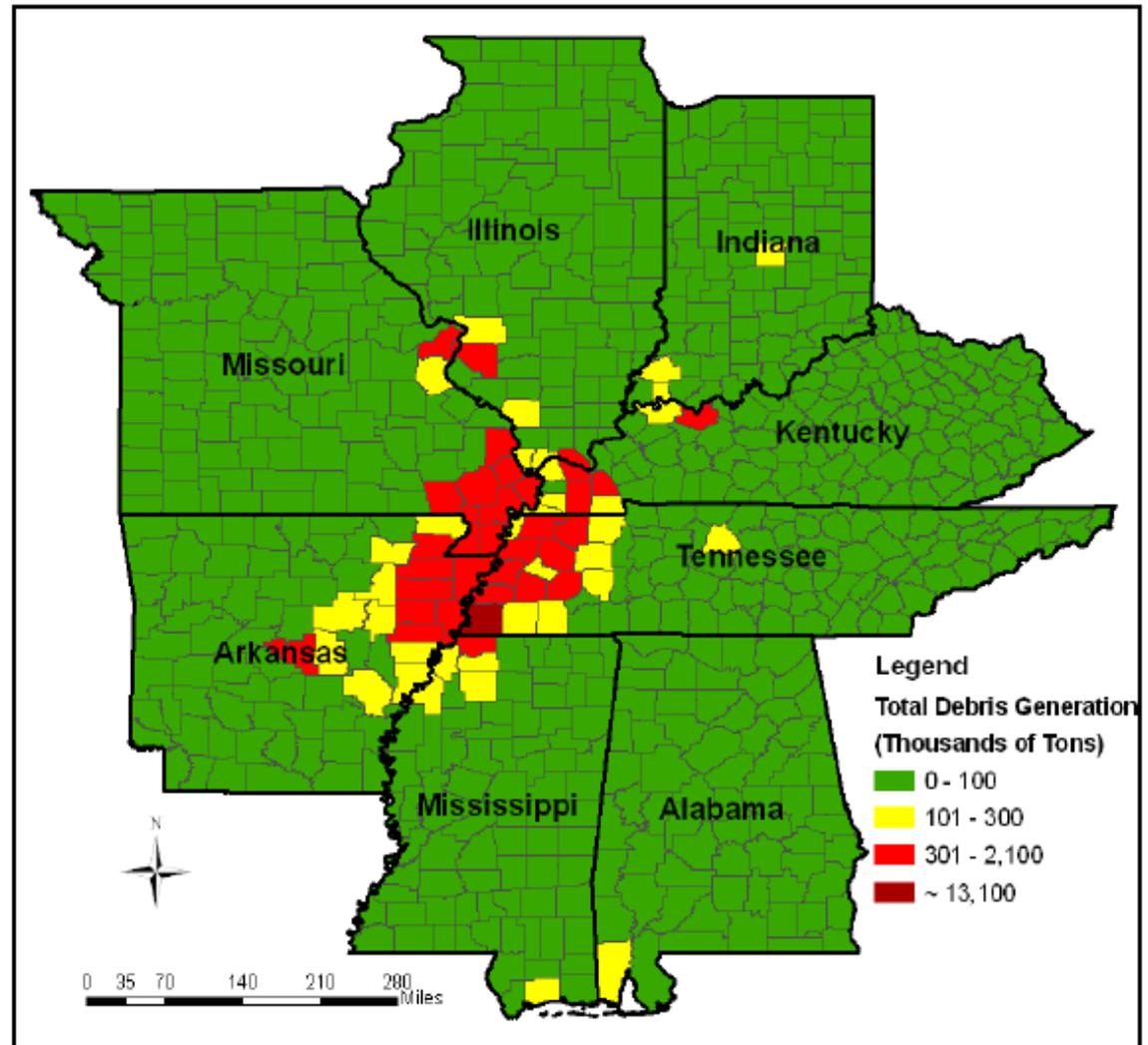
	Hazmat Facilities	
	Total	Damaged
Alabama	3,656	0
Arkansas	1,834	69
Illinois	17,130	36
Indiana	5,112	0
Kentucky	2,865	43
Mississippi	2,042	0
Missouri	3,040	32
Tennessee	4,080	73
<b>TOTAL</b>	<b>39,759</b>	<b>253</b>

# Debris Generation

	Brick, Wood, Other	Steel & Concrete	Total Debris
Alabama	256,000	303,000	559,000
Arkansas	4,096,000	5,295,000	9,391,000
Illinois	1,308,000	1,454,000	2,762,000
Indiana	488,000	561,000	1,049,000
Kentucky	2,058,000	2,760,000	4,818,000
Mississippi	1,489,000	1,919,000	3,408,000
Missouri	2,943,000	3,507,000	6,450,000
Tennessee	9,305,000	12,314,000	21,619,000
<b>TOTAL</b>	<b>21,943,000</b>	<b>28,113,000</b>	<b>50,056,000</b>

	Total Truckloads
Alabama	22,360
Arkansas	375,640
Illinois	110,480
Indiana	41,960
Kentucky	192,720
Mississippi	136,320
Missouri	258,000
Tennessee	864,760
<b>TOTAL</b>	<b>2,002,240</b>

- *Over 50 million tons of debris generated*
- *Largest amount of debris generated in Shelby County, TN, roughly 13 million tons in Memphis area*
- *Several counties Missouri, Kentucky, and Arkansas generate over 1 million tons of debris*
- *Over 2 million truckloads required to remove all debris*



*NOTE: Debris truckloads required are based on the use of a 25-ton truck to remove all debris generated during the earthquake event.*

# To Summarize - What if it happened here today?

## 7.7M New Madrid Earthquake

### 8 State Perspective

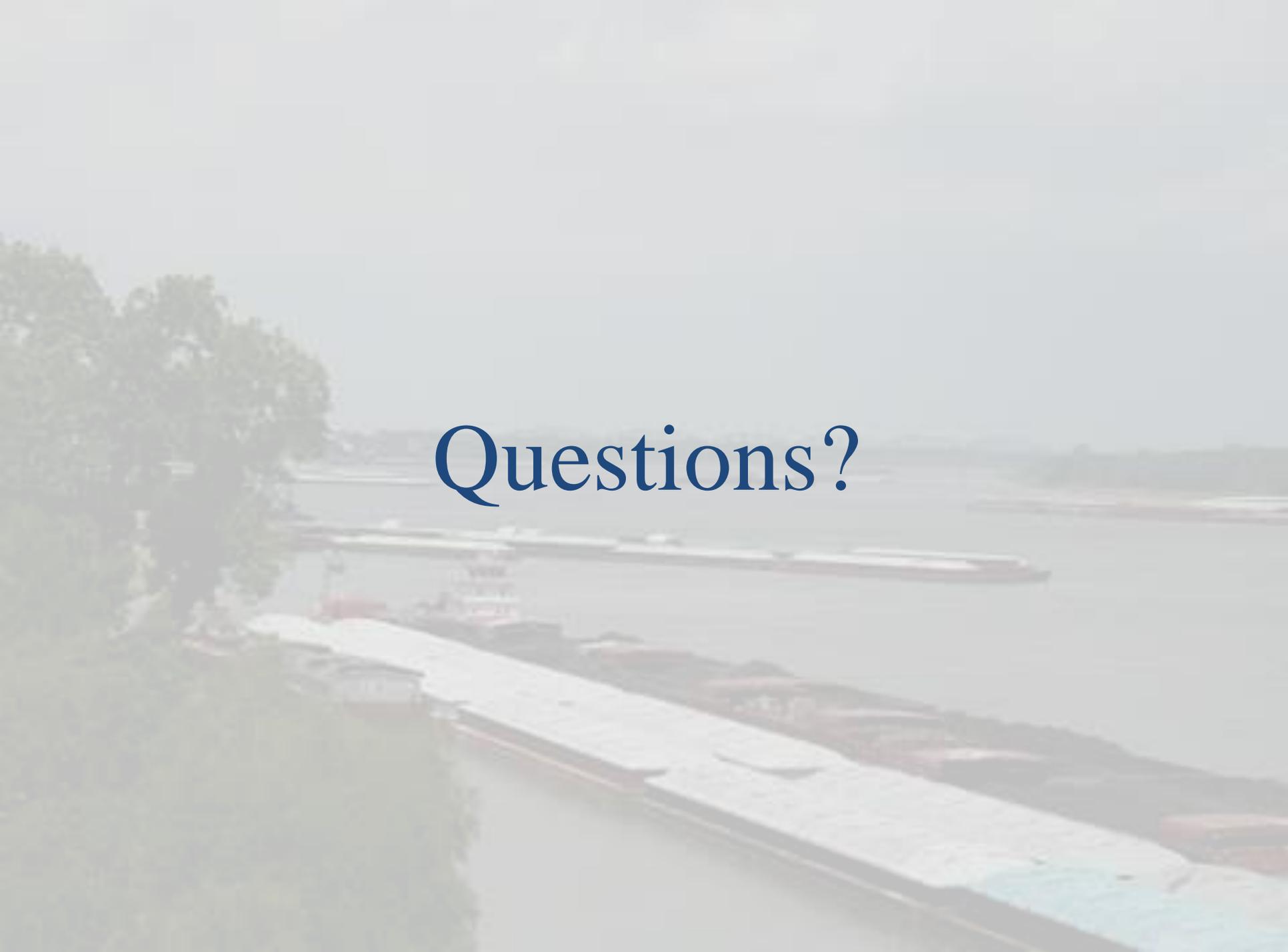
- 7+ Million People
- 85,000 Injured
- 3,500 Deaths
- 2M Seek Shelter
- 3600 Bridges Damaged
- 700K Buildings Damaged
- 32K Buildings Collapsed
- \$300B Event
- 2.6M Households without electricity
- 1.1M without Water
- 1,500 USAR Teams needed – 28 currently
- Widespread Bridge, Dam and Levee damage
- What about cascading events?

# The Stage is Set for a Catastrophic Event

- High percentage of structures built without seismic considerations
  - Building codes have only recently addressed the seismic hazard
- Last significant earthquake 1895 - 6.8
- High percentage of URM's
- Central US Serves as the Crossroads Of America
- Low level of understanding / belief

# Sources of Local Earthquake Technical Assistance

- Central U.S. Earthquake Consortium
  - Jim Wilkinson – [jwilkinson@cusec.org](mailto:jwilkinson@cusec.org), [www.cusec.org](http://www.cusec.org)
- Center for Earthquake Research and Information, Univ. of Memphis, USGS  
Central Regional Office Memphis, TN
  - [www.ceri.memphis.edu](http://www.ceri.memphis.edu), [www.usgs.gov](http://www.usgs.gov)
- Mid America Earthquake Center <http://mae.ce.uiuc.edu>

The background image shows a wide river with several long barges. One barge in the foreground is covered with a white tarp and has some blue material at the end. Another barge further down the river is also covered with a white tarp. A tugboat is visible between the barges. The scene is set against a hazy, overcast sky. The text "Questions?" is overlaid in the center in a dark blue, serif font.

Questions?

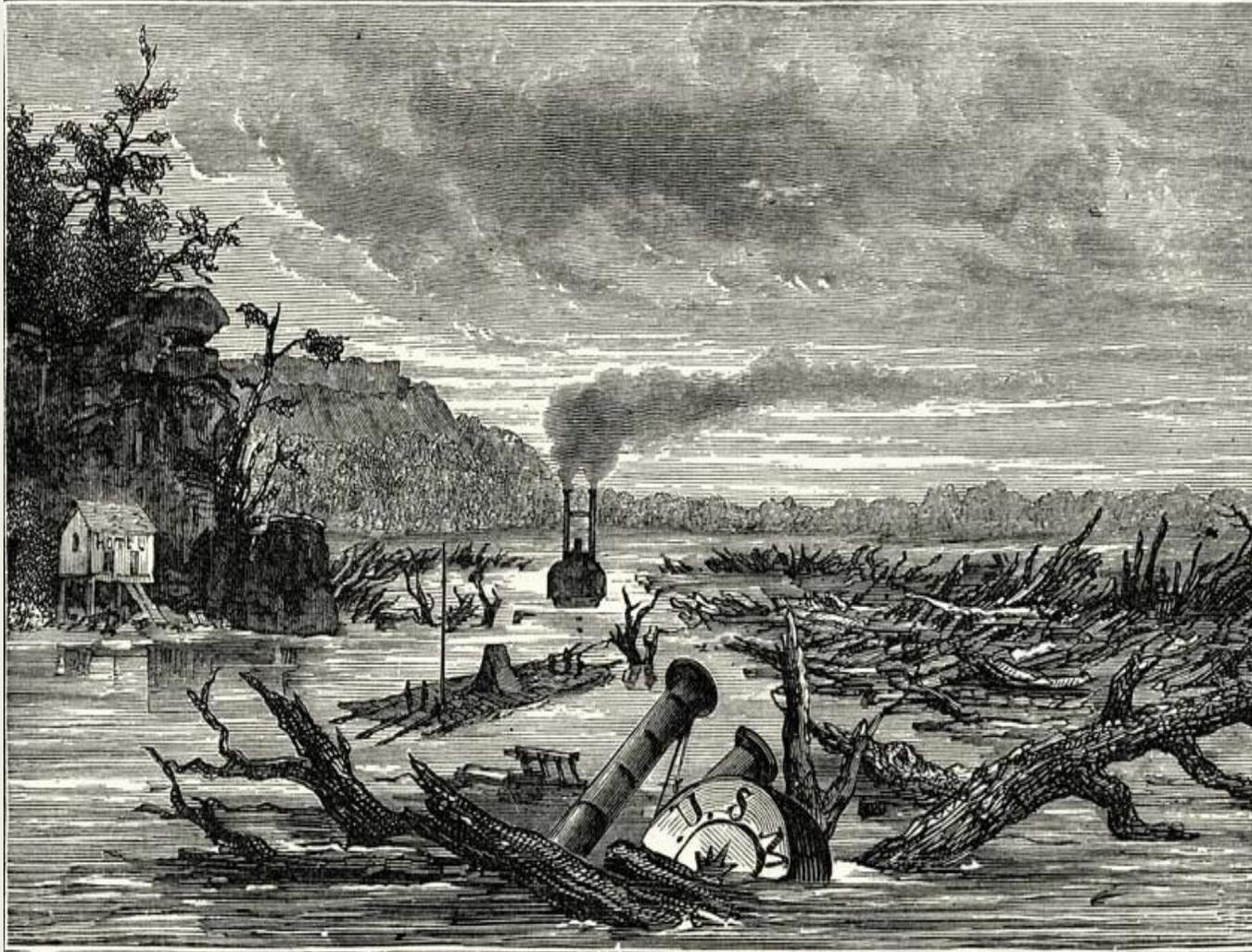


**NEW MADRID  
SEISMIC ZONE**

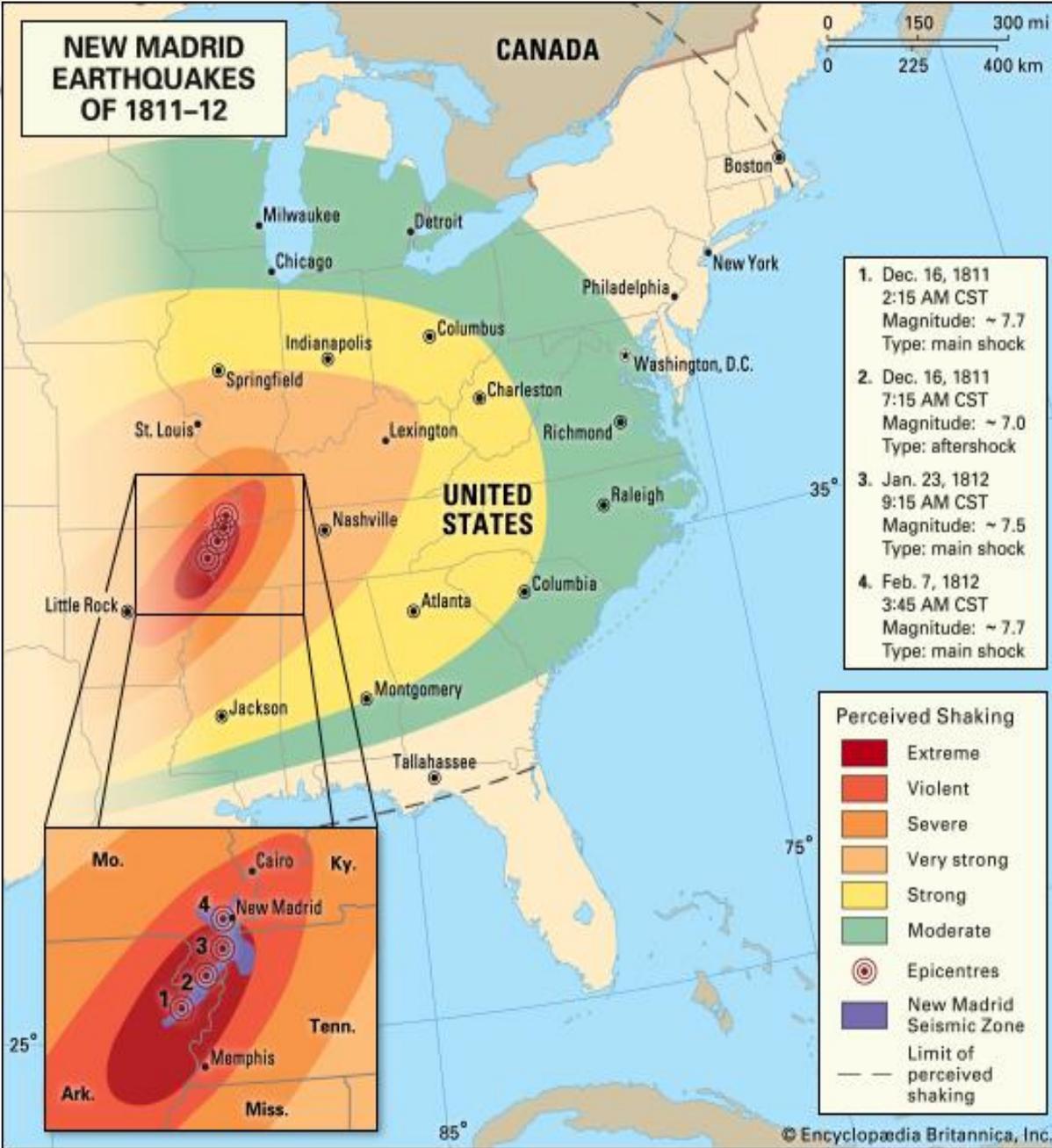
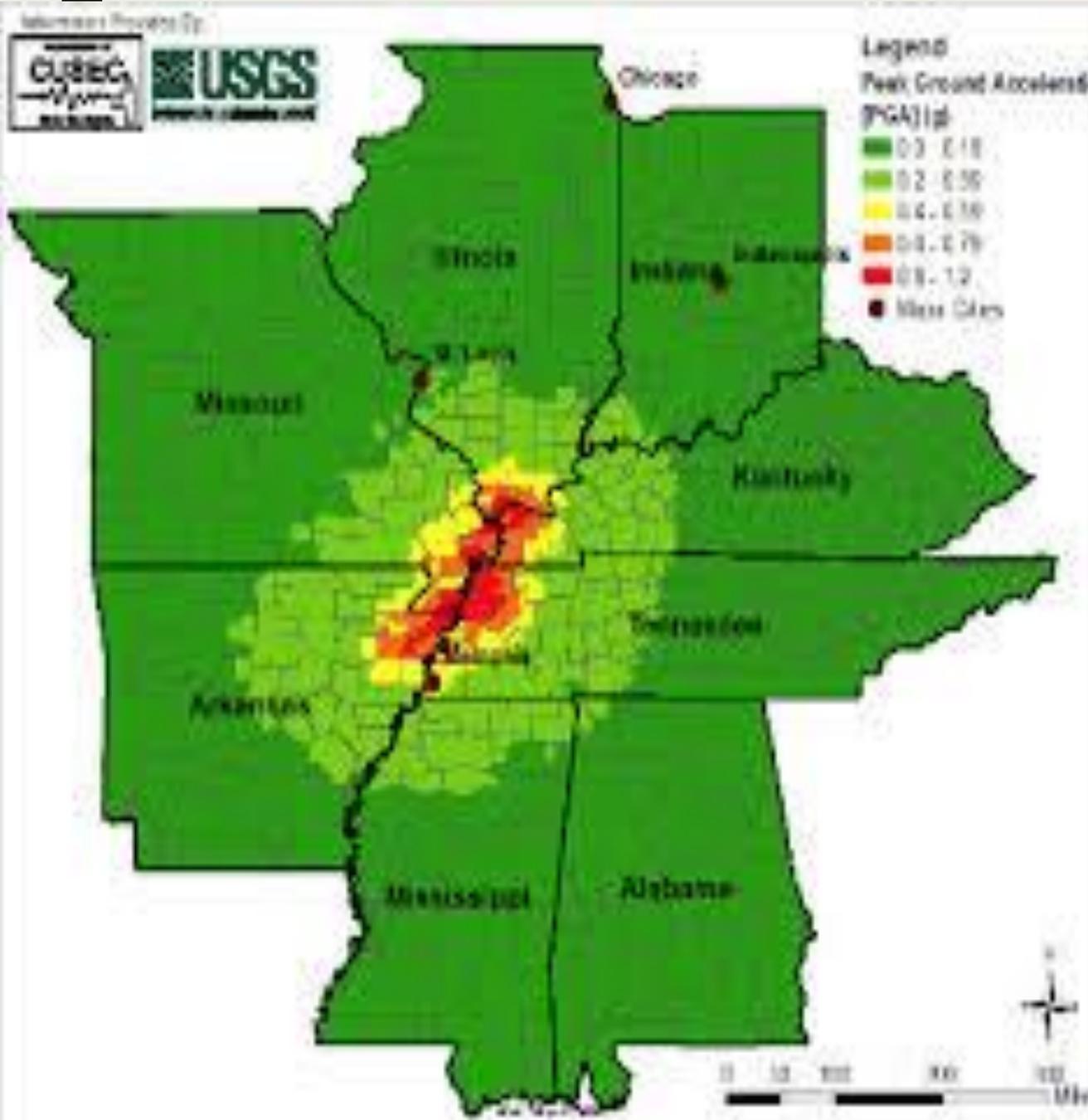
**ARKANSAS**

**EPA REGION 6 PLAN**

# NMSZ



"The Great Earthquake at New Madrid"  
Henry Howe, *The Great West* (Cincinnati, 1851), p. 237, in *The State Historical Society of Missouri*, Columbia, Mo.



**Note:** Modern city locations and state boundaries shown.  
**Sources:** Magnitude and time of earthquakes from U.S. Geological Survey, Earthquake Hazards Program, © Encyclopædia Britannica, Inc.

# NMSZ - Arkansas

19 counties in Arkansas estimated to incur the most severe damage, as estimated by the MAE Center Phase II Modeling Data and National Level Exercise 11 / CAPSTONE 14 scenario modeling.



Modified Mercalli Intensity (MMI)		
X+	IX	VIII

Impacted Counties	
County	Population
Arkansas	18,433
Clay	15,109
Craighead	104,354
Crittenden	48,963
Cross	17,284
Greene	44,196
Independence	37,052
Jackson	17,338
Lawrence	16,729
Lee	9,650
Mississippi	43,738
Monroe	7,399
Phillips	19,513
Poinsett	24,040
Prairie	8,291
Randolph	17,469
St. Francis	26,589
White	79,161
Woodruff	6,741
<b>TOTAL</b>	<b>562,049</b>

Source: 2015 US Census Bureau

# NMSZ - Arkansas

## ■ *Exercise Scenario (June 2019)*

- At approximately 2 a.m. on February 7, a **magnitude 7.7**, (Mw7.7), earthquake occurs along the New Madrid Fault. Intense shaking in northeastern Arkansas, western Tennessee, western Kentucky, and the boot heel of Missouri.
- Shaking lasted for more than a minute, causing **widespread liquefaction** in soft, loose soils. Most of northeastern Arkansas experiences extensive liquefaction,
- **Aftershocks are likely** and may occur in the hours and days following the main event. Though it is unlikely that an aftershock will generate the same magnitude event as the main shock, aftershocks with magnitudes of 6, ~Mw6, are possible if not probable.

# NMSZ - Arkansas

## ■ *Planning Facts*

- 1. There will be **no warning** before the earthquake occurs, as it is a **no-notice event**.
- 2. There will be an immediate Presidential declaration for eight impacted states.
- 3. **State and local governments will be overwhelmed**, requiring immediate federal support.
- 4. Response **capabilities at the local levels will be limited** due to damage to emergency facilities and equipment, and impact to personnel.
- 5. **Infrastructure will be crippled if not inoperable**.
- 6. Most Arkansas **buildings do not meet earthquake standards** (grandfathered).
- 7. Region 6 RRCC and Arkansas SEOC are operational.

# NMSZ - Arkansas

## ■ Planning Factors

- Counties Catastrophically Impacted: 19
- **Population of Impacted Counties (2015 census): 562,049**
- Fatalities: 641
- Injuries: 14,664
  - • *10,964 require medical treatment*
  - • *3,700 require hospitalization*
- Hospital Damage: 10 destroyed; 9 damaged
- Patient Evacuation: Over 2,000
- **Potential Evacuations : 344,000**

# NMSZ - Arkansas

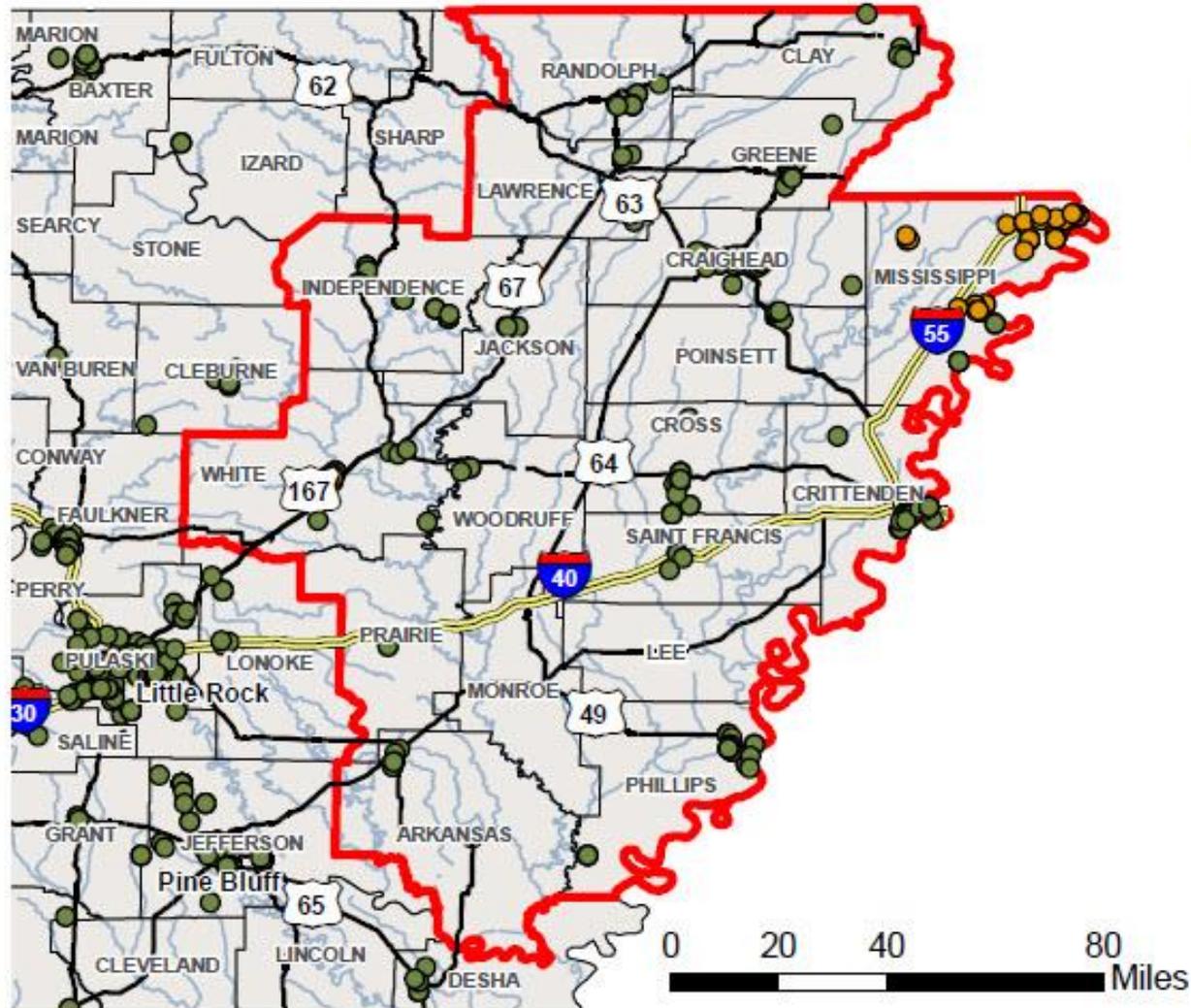
**Table 1 – Building Damage by Occupancy Type for Arkansas**

<b>General Occupancy Type</b>	<b>Total Buildings*</b>	<b>At Least Moderate Damage**</b>	<b>Complete Damage**</b>
Single Family	833,500	69,700	35,800
Other Residential	408,500	75,000	27,400
Commercial	53,200	11,000	4,700
<b>Industrial</b>	<b>14,600</b>	<b>2,800</b>	<b>1,100</b>
Other	15,600	3,700	1,700
<b>TOTAL</b>	<b>1,325,400</b>	<b>162,200</b>	<b>70,700</b>

# NMSZ - Arkansas

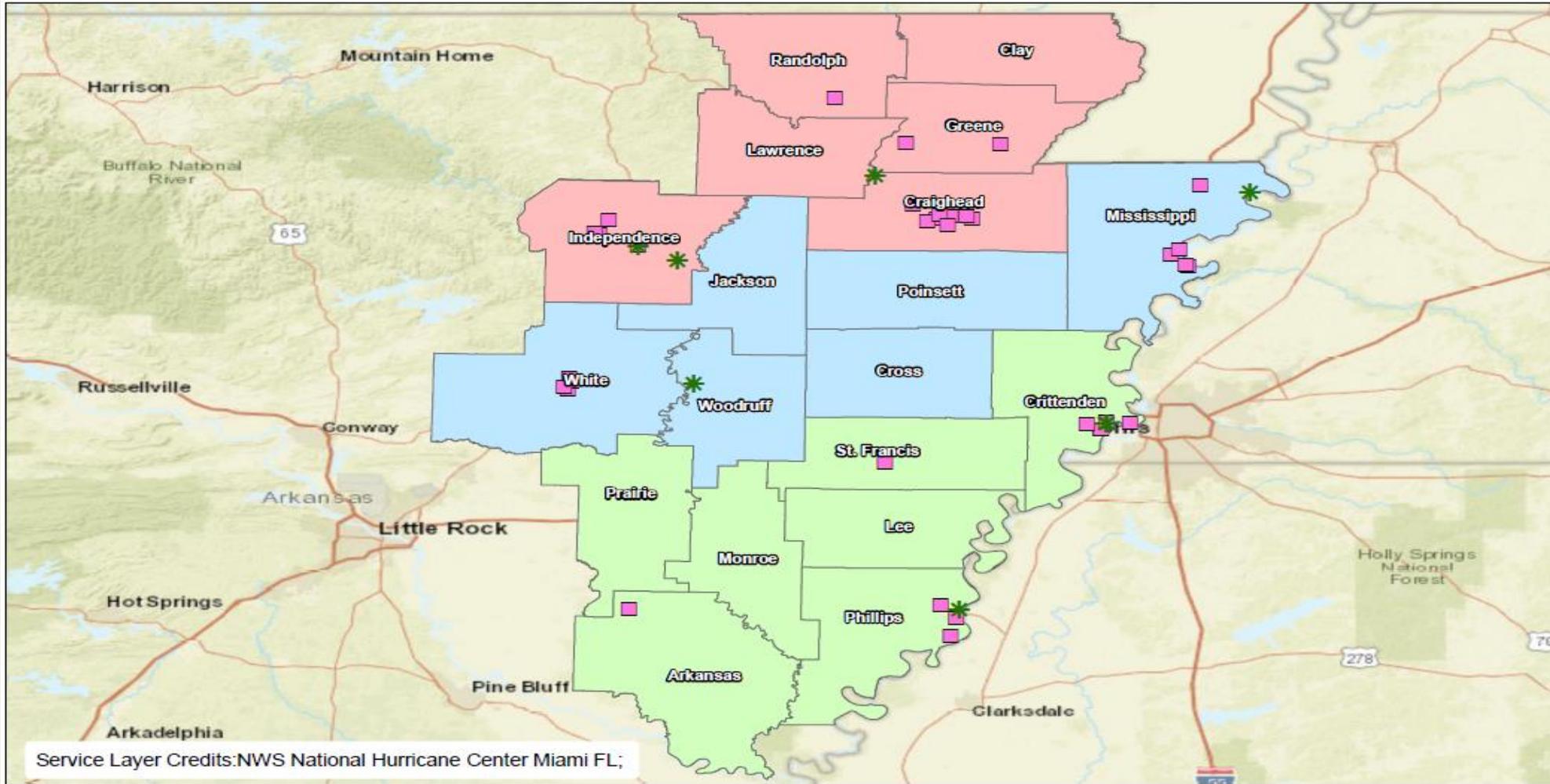
Pipeline System	Total Miles*	Leaks	Breaks	Total Repairs
Potable Water Local	118,700	19,532	27,649	47,181
Wastewater Local	71,200	15,448	21,868	37,316
Natural Gas Local	47,500	16,513	23,376	39,889
Natural Gas Interstate	9,700	340	1,092	1,432
Oil Interstate	2,200	62	214	276

# Arkansas Hazmat Facilities Damage New Madrid Seismic Zone: M7.7 Event



## Hazmat Facilities Damage of Critical Area (Points)

- Not Damaged
- Damaged



**Legend**

-  FRP Facilities
-  RMP Facilities
-  Alpha Branch Counties Effected
-  Bravo Branch Counties Effected
-  Charlie Branch Counties Effected

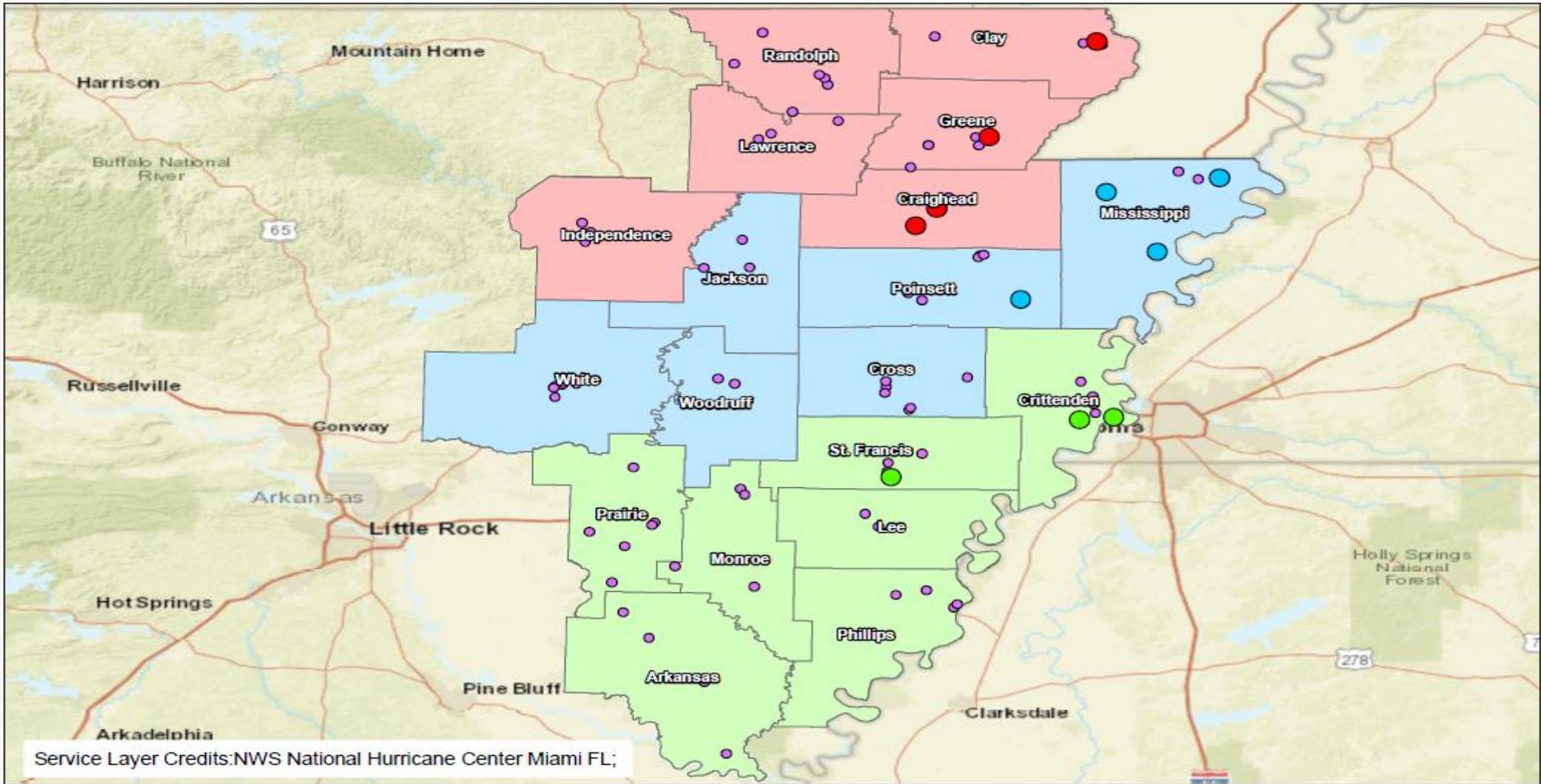
**US EPA Region 6**  
**New Madrid Seismic Zone**  
**Facility Response Plan and**  
**Risk Management Plan Facilities**



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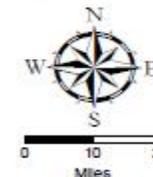


**Legend**

- Alpha Branch Staging
- Bravo Branch Staging
- Charlie Branch Staging
- Alternative Staging
- Alpha Branch Counties Effected
- Bravo Branch Counties Effected
- Charlie Branch Counties Effected

**US EPA Region 6**

**New Madrid Seismic Zone  
Potential Staging Areas**



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# NMSZ - Arkansas

## ■ *Planning Assumptions*

- 1. There will be **aftershocks** following the initial earthquake that are not likely to exceed Mw6.0.
- 2. As with the 1811 NMSZ earthquake, there could be **another catastrophic NMSZ earthquake exceeding M<sup>w</sup>7.0** within a month after the initial earthquake.
- 3. Active disasters, along with response to other potential disasters, will degrade the capabilities and resources of the local/state/federal governments to effectively meet the needs in an NMSZ event.
- 4. **A detailed and credible Common Operating Picture will not be achievable for 24–72 hours after the incident occurs.** Consequently, response operations will begin without the benefit of a detailed assessment of the situation and critical needs.
- 5. **Cascading effects will impact supporting counties** and states outside the severely impacted area that may also qualify for Presidential declarations

# NMSZ - Arkansas

## EPA RESPONSE TIMELINE

- The response activities conducted by EPA will be divided into two phases: **Response Phase, and Peak Response Phase.**
- The **Initial Response Phase lasts approximately 10 days.**
  - *This phase includes the deployment of sufficient personnel and equipment within **48 to 72 hours** to conduct immediate emergency operations and to prepare for the increase in resources necessary to transition into the Peak Response Phase. The volume of resources mobilized for the Peak Response Phase is dependant on FEMA MAs assigned to EPA.*
- The **Peak Response Phase will begin approximately ten days after mobilization of the Initial Response Team**
  - *This phase includes the **mobilization of resources to support a long-term response involving multiple assignments.** Resources assigned to the Peak Response Phase will demobilize once FEMA MAs are completed and authority is transitioned to the State and local agencies.*

# NMSZ - Arkansas

## Incident Objectives for the Initial Response Phase include:

- Ensure **health and safety** of responders and the public
- **Conduct recon and assessment** of impacted areas to obtain situational awareness and define geographical boundaries
- **Minimize environmental impacts from the releases of oil and hazardous material.**
- Maintain open coordination/communication with Regional management.
- Coordinate response and assessment activities with Federal, State, Tribal and Local officials
- **Establish Incident Command Post(s)** and associated logistical Support.
- **Stage sufficient resources** to accommodate changes in priorities.

# NMSZ - Arkansas

## Initial Phase Activities:

- **Mobilizing the initial response team** to the field.
- **Activating the Incident Management Team (IMT).**
- **Activating the RSC.**
- Assessing environmental conditions (environmental recon, environmental sampling, and facility assessments) to **determine environmental response priorities.**
- Identify the extent and scope of the incident.
- **Address highest priority hazardous materials/oil releases.**
- Providing **technical assistance through ESF #3** for drinking water system and wastewater treatment facilities.
- Meeting the logistical needs of the initial response team and preparing for the ramp-up to the Peak Response Phase.

# NMSZ - Arkansas

## - PEAK RESPONSE PHASE OBJECTIVES AND ACTIVITIES:

- Conduct **recon and assessment of impacted areas to identify targets for recovery and assessment of progress.**
- Coordinate response and assessment activities with Federal, State, Tribal and Local officials
- Provide **technical assistance to Drinking Water and Wastewater Treatment Plants.**
- Provide **assistance with Debris Management through Landfill and Demolition Observations.**
- Conduct **collections and disposal of High Hazard Materials**, and other such materials.
- Conduct **environmental sampling, as necessary**, to assess the impact of releases
- Evaluate and **determine impact to facilities posing a risk to the public.**
- Stage sufficient resources to accommodate changes in priorities.

## NMSZ - Arkansas

- **REGIONAL COORDINATION; REGIONAL INCIDENT COORDINATION TEAM (RICT)**
- Internally, cross program coordination will be necessary to support EPA's response to the event as well as EPA's programmatic impacts on other agencies' responses.
- Externally, EPA Region 6 will be in close coordination with other EPA Regions for response support. Region 6 will also work with EPA Headquarters when national resources (i.e., ASPECT, TAGA, etc.) are needed for the earthquake response.
- **FEDERAL PARTNERS**
  - FEMA
  - U.S. Coast Guard
  - U.S. Army Corps of Engineers (USACE)
  - Occupational Safety and Health Association (OSHA)
  - Center for Disease Control (CDC)/Agency for Toxic Substances and Disease Registry (ATSDR)
  - Natural Resource Trustees
  - STATE, TRIBAL, AND LOCAL REPRESENTATIVES



# Sector Upper Mississippi River

## Barge Transportation



Joint RRT 6 & 7  
27 March 2019



# Sector Upper Mississippi River

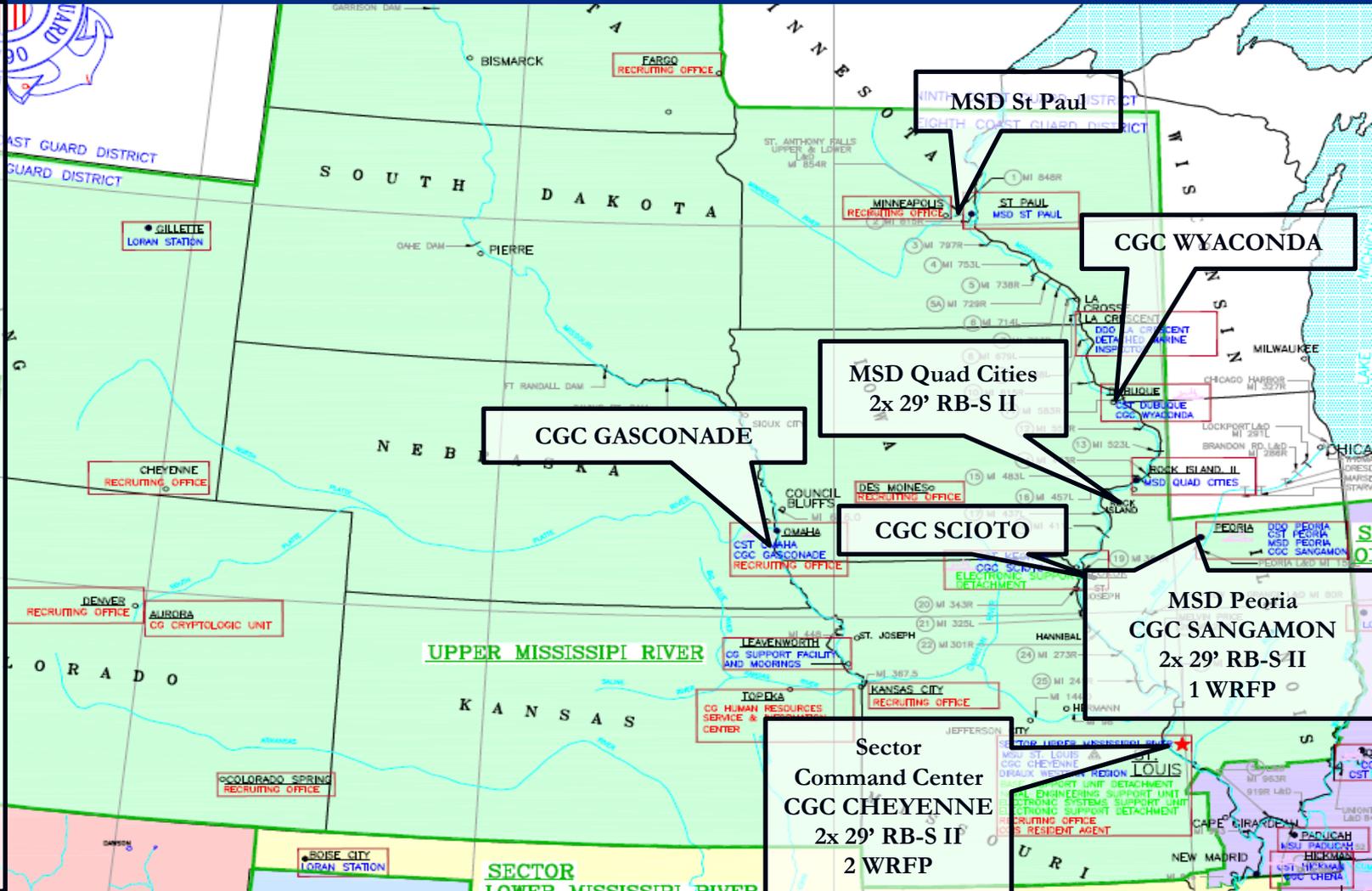
## AOR

**11 States:**  
 Missouri, Illinois,  
 Iowa, Minnesota,  
 Kansas, Nebraska,  
 North & South  
 Dakota, Colorado,  
 Wyoming, Wisconsin.

**Major Rivers:**  
 Upper Mississippi  
 Illinois  
 Missouri

**Minor Rivers:**  
 Kaskaskia  
 St. Croix  
 Minnesota

**Major Lakes:**  
 Lake of the Ozarks  
 Horseshoe Lake  
 Sakakawea  
 Carlyle  
 Table Rock  
 Taneycomo  
 Cheney  
 Chatfield



**Sector Command Center**  
**CGC CHEYENNE**  
 2x 29' RB-S II  
 2 WFRP

# Aids to Navigation

## High Volume Rivers

	<i>Buoys</i>	<i>Total</i>
<i>Lower Miss River</i>	1315	1451
<i>Ohio River</i>	831	1186
<i>Upper Miss River</i>	3007	3808
<i>Tennessee River</i>	1499	1742
<i>Illinois River</i>	951	1169

## Lower Volume Rivers

<i>Arkansas River</i>	971	1224
<i>Cumberland River</i>	692	813
<i>Mobile/Warrior</i>	288	438
<i>Monongahela</i>	137	258
<i>Kanawha River</i>	86	131
<i>Red/Ouachita</i>	658	2299
<i>Tenn/Tom</i>	757	1223
<i>Missouri River</i>	583	1113
<i>Apalachicola</i>	188	829
<i>Alabama River</i>	210	430
<i>Clinch River</i>	141	173

*Note: Buoy totals are as of 06FEB14. The buoy totals fluctuates in relation to the various river levels, particularly on those rivers that are not pooled; the Mississippi River from St Louis to the mouth for example.*

## Annual Commercial Tonnage



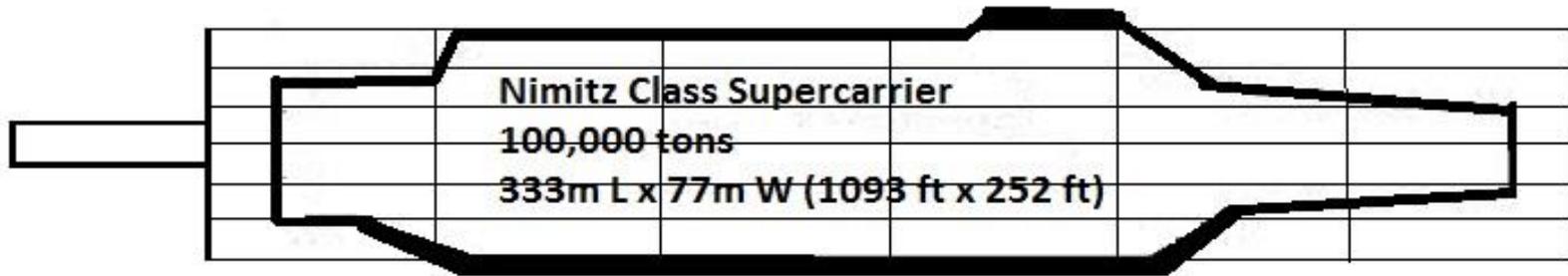


# Inland Waterway System

- 12,000 miles of navigable waterways
- Handles shipments to/from 38 states



Line Haul with 36 barge tow 419m L x 64m W (1375 ft x 210 ft)





# Why Care About Tow Boat & Barge Traffic on the Inland Rivers?

- A fleet of 6,000 towing vessels and more than 28,000 barges move 800 million tons of cargo annually
- 30,000 vessel crewmembers
- Adds **\$5 billion dollars** annually to the U.S. Economy
- Liquid Fleet accounts for about 3,000 barges



# Why Care About Tow Boat & Barge Traffic on the Inland Rivers?

Typical inland barge has a capacity 16 times greater than one rail car and 70 times greater than one semi trailer truck.

## The Greener Way to Go

*Inland barges produce less CO<sub>2</sub> while moving America's cargoes.*

In terms of CO<sub>2</sub> produced per ton of cargo moved, inland barges have a significant advantage over trains and trucks.



**Tons of CO<sub>2</sub> per Million Ton-miles**



# Comparing Transportation Modes

Dry Cargo Transportation: 1,750 tons



**1** INLAND BARGE

VS.

**16** BULK RAIL CARS



OR

**70** TRACTOR TRAILERS



Key  = 5 bulk rail cars  = 5 tractor trailers

Liquid Cargo Transportation: 27,500 BBL



**1** INLAND BARGE

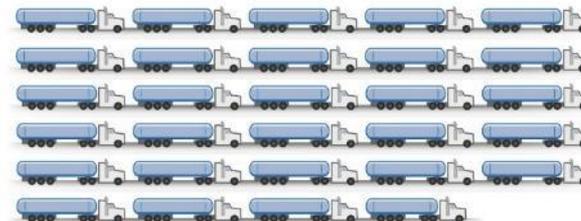
VS.

**46** RAIL CARS



OR

**144** TANKER TRUCKS



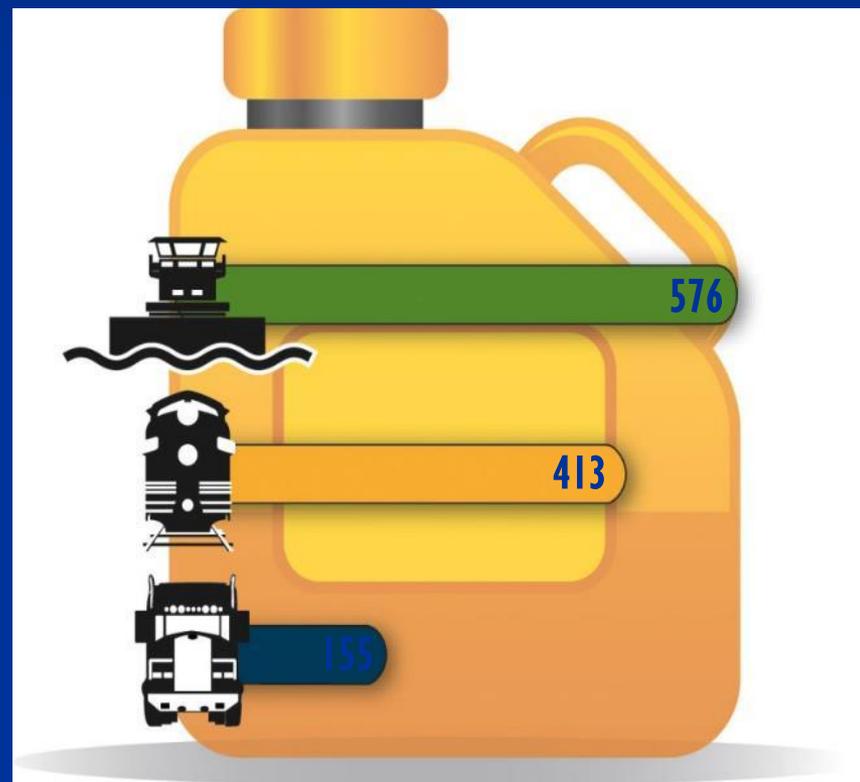
Key  = 5 rail cars  = 5 tanker trucks



# Moving Freight Efficiently Throughout America

Transporting freight by water is also the most energy-efficient choice.

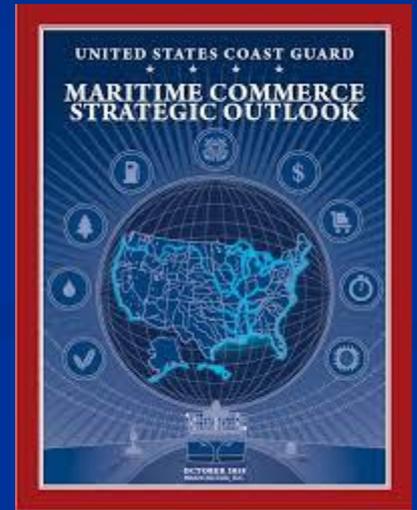
Barges can move one ton of cargo 576 miles per gallon of fuel. A rail car would move the same ton of cargo 413 miles, and a truck only 155 miles.





# USCG Maritime Commerce Strategic Outlook (MCSO)

- Nationally recognizes significance of the Inland River Transportation System
- Establishes 3 lines of effort:
  - Facilitating lawful trade & travel on secure waterways
  - Modernizing aid to navigation & marine information systems
  - Transforming workforce capacity & partnerships
- What does it look like in Sector UMR?
  - WLR recapitalization w/WCC
  - E-ATON
  - AIS transmitting of Marine Information
  - Western Rivers WAMS
  - Continued/expanded govt & industry partnerships





# Sector Upper Mississippi River

## Top Commodities (Through Melvin Price Lock 26 - CY 2017)

1. All Food and Farm Products	36,127,729 tons
2. All Chemicals and Related Products	11,265,496 tons
3. All Primary Manufactured Goods	5,140,762 tons
4. <i>All Crude Materials, Inedible, Except Fuels</i>	5,058,656 tons
5. <i>All Petroleum and Petroleum Products</i>	4,222,473 tons
6. All Coal, Lignite, and Coal Coke	1,087,950 tons
7. All manufactured Equipment and Machinery	109,740 tons
8. All Unknown or Not Elsewhere Classified	35,750 tons
9. All Waste Material	11,400 tons



# Sector Upper Mississippi River

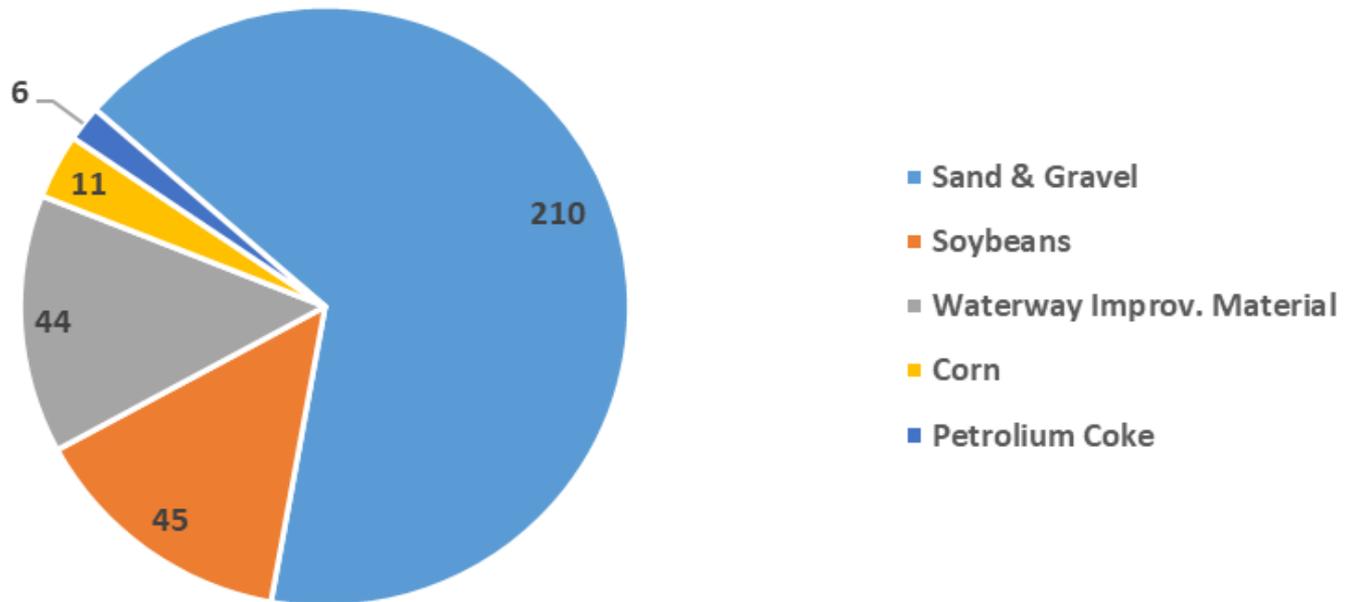
## Melvin Price Lock and Dam





# Commodity Shipments Missouri River

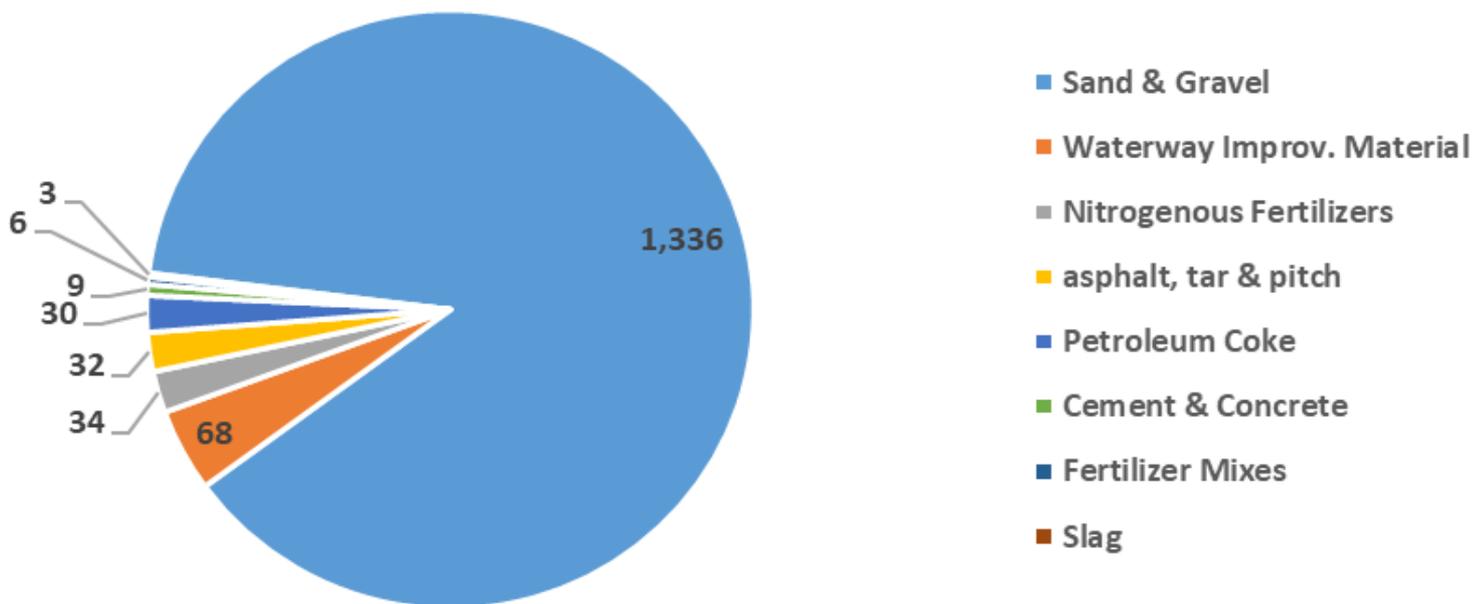
Commodities Shipped Between Omaha, NB and Kansas City, MO (thousand tons)





# Commodity Shipments Missouri River

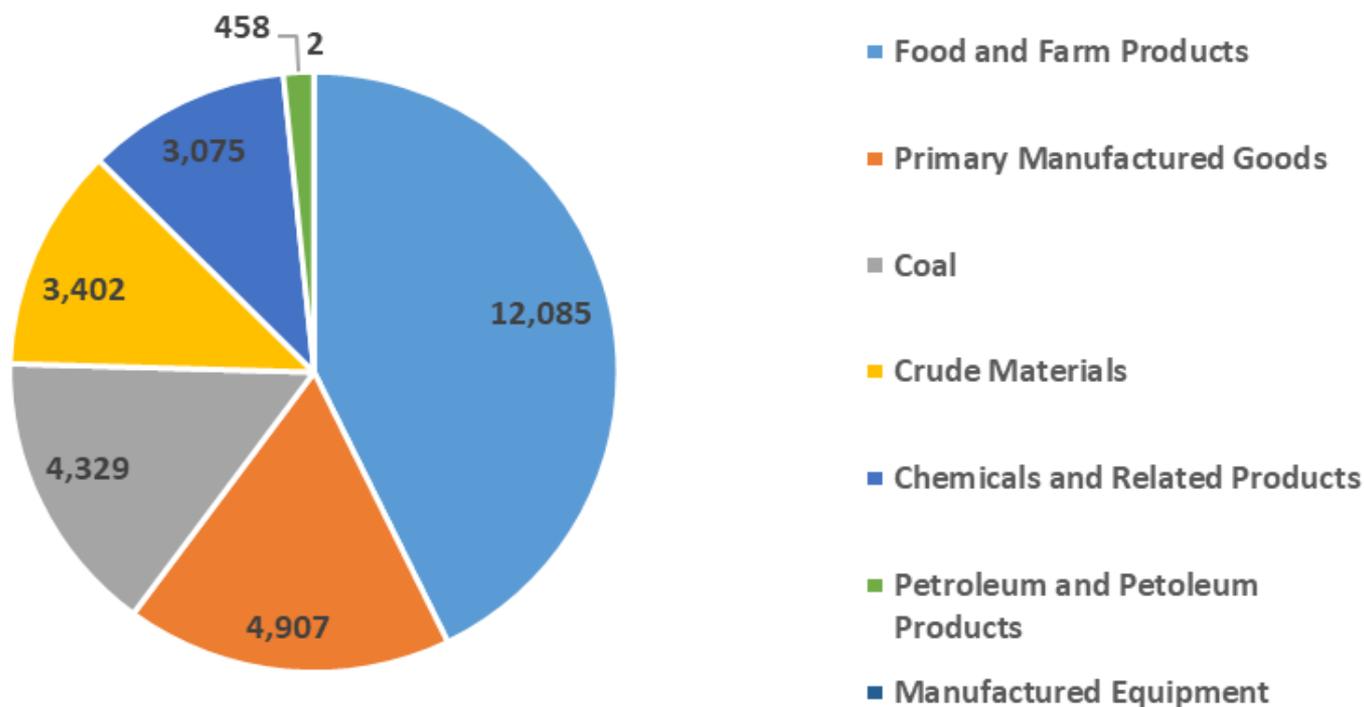
Commodities Shipped Between Kansas City, MO and  
Mouth of Missouri River (thousand tons)





# Commodity Shipments Mississippi River

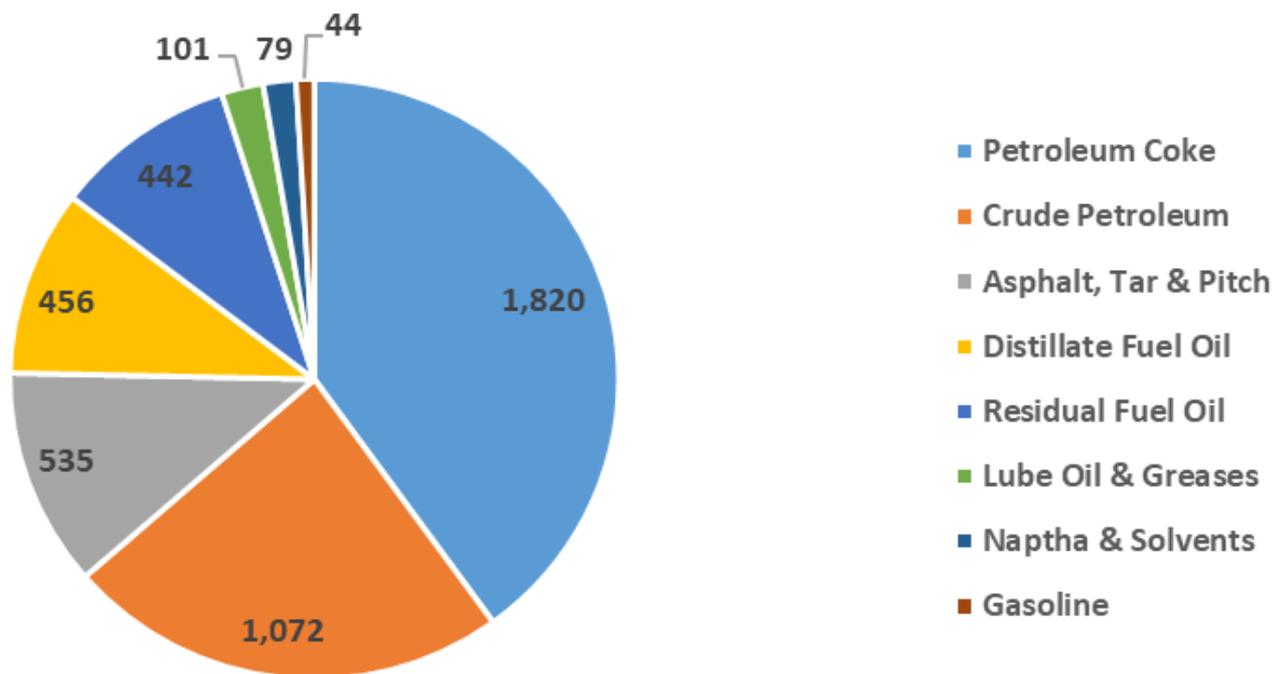
Commodities Shipped through the Port of St. Louis  
(thousand tons)





# Commodity Shipments Mississippi River (Petroleum)

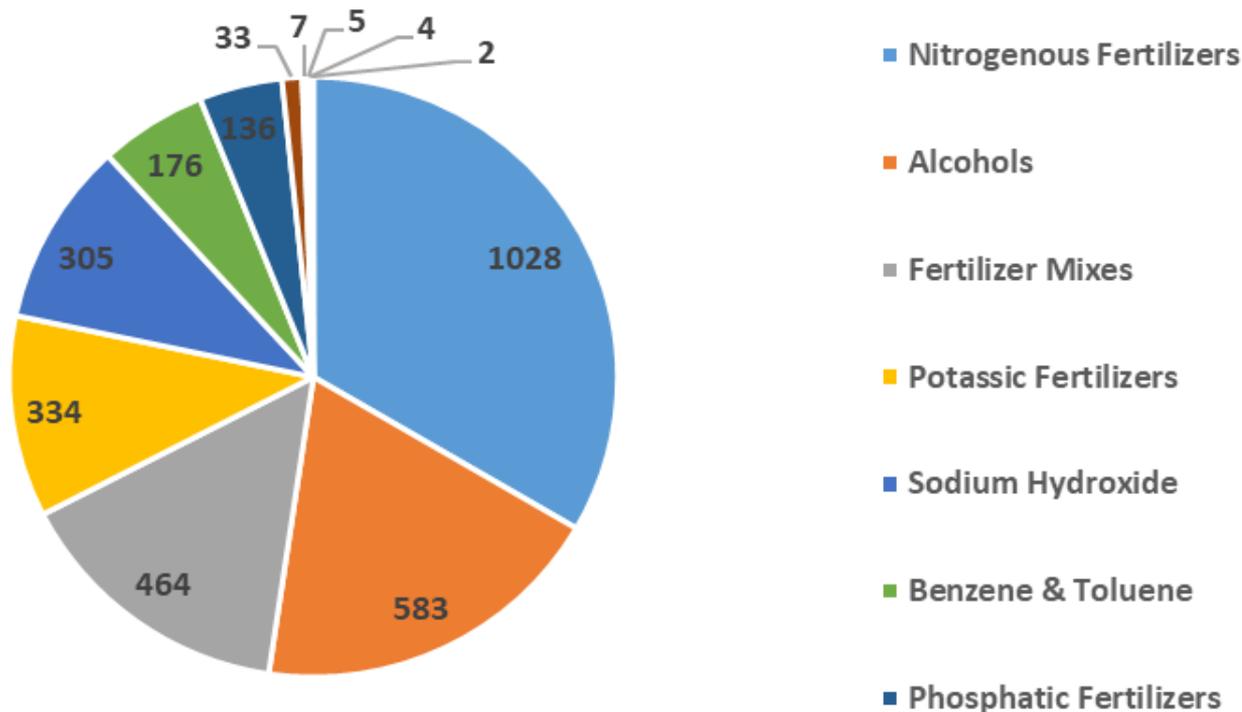
Petroleum Products Shipped through the Port of St. Louis (thousand tons)





# Commodity Shipments Mississippi River (Chemicals)

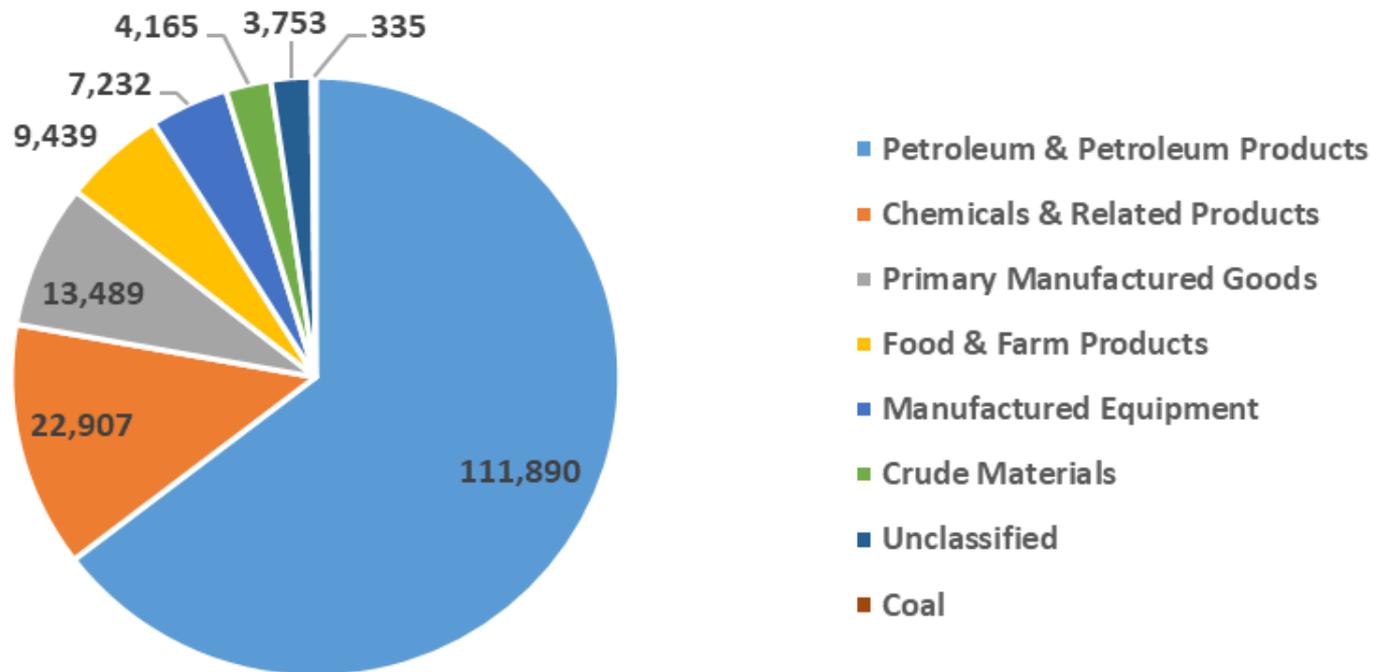
Chemicals and Related Products Shipped through the  
Port of St. Louis (thousand tons)





# Commodity Shipments By Comparison

Commodities Shipped through the Houston Ship Channel (thousand tons)





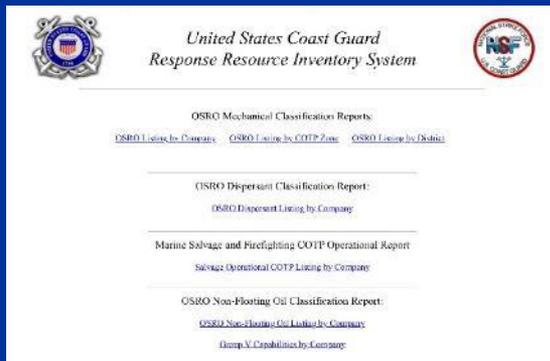
# Sector UMR MER Resources

## OSROs

- NRC
- SET Environmental
- Oil Mop
- Heritage

## USCG

- 5 Buoy Tenders
  - 17 Active Duty per Cutter
- 3 Marine Safety Detachments (MSD)
  - 30 Active Duty/Civ
  - 6 Response Boat-Small (29' RB-S II)



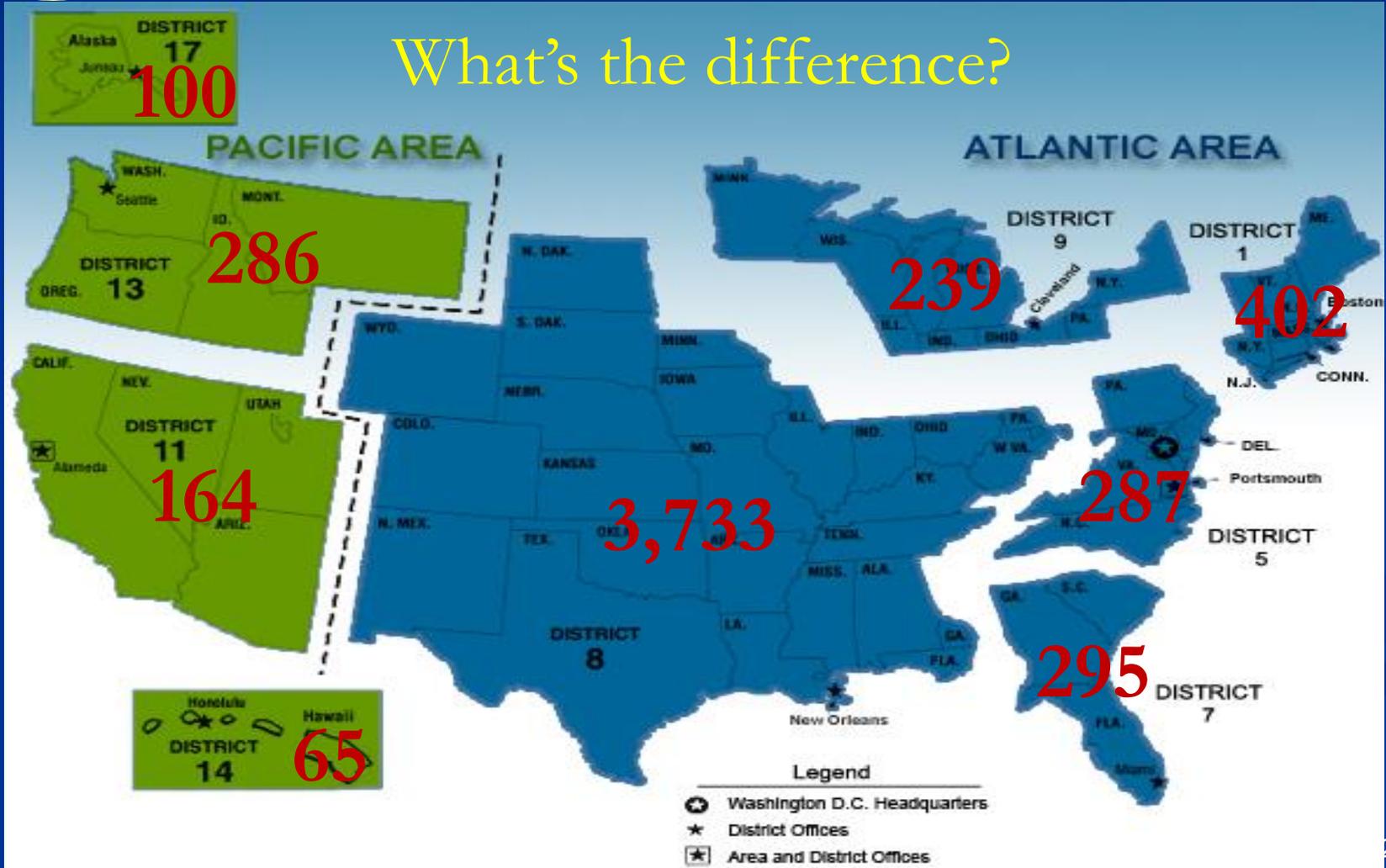


# Subchapter M Impacts

## National UTV Fleet

5,900 vessels (+/-)

What's the difference?





# Subchapter M Timeline

June 20 2016	Subchapter M Published
July 20 2016	<ul style="list-style-type: none"><li>•Subchapter M regulations effective , but most of Parts 140-144 delayed for 2 years or after vessel is issued a COI.</li><li>•All vessels must comply with watertight and weathertight requirements of 46 CFR 144.320</li></ul>
July 20 2017	<ul style="list-style-type: none"><li>•Vessels built or initiating a major conversion are considered a “new towing vessel” (46 CFR 136.110) and are subject to part 140-144 requirements.</li></ul>
July 20 2018	<ul style="list-style-type: none"><li>•Parts 140-144 implemented, with exception of Health and Safety Plan, Pilothouse Alerter System, Towing Machinery requirements.</li></ul>
July 22 2019	<ul style="list-style-type: none"><li>•25% of a company’s fleet must have a valid COI except for companies with only 1 existing towing vessel.</li><li>•Towing Vessel owner or managing operator must implement a Health &amp; Safety Plan. 46 CFR 140.500</li></ul>
July 20 2020	<ul style="list-style-type: none"><li>•50% of a company’s fleet must have a valid COI.</li><li>•Companies with only 1 existing towing vessel must obtain a COI</li></ul>
July 19 2021	<ul style="list-style-type: none"><li>•75% of a company’s fleet must have a valid COI.</li></ul>
July 19 2022	<ul style="list-style-type: none"><li>•100% of a company’s fleet must have a valid COI.</li></ul>
Year 7 to Year 11	<ul style="list-style-type: none"><li>•5 years after issuance of initial COI, existing vessels comply with 46 CFR 143.450 (Pilothouse Alerter System) and 46 CFR 143.460 (Towing Machinery requirements).</li></ul>
Year 11	<ul style="list-style-type: none"><li>•Subchapter M Implementation is Complete.</li></ul>



# Subchapter M

## Two main options for compliance

### 1. Towing Safety Management Systems (Third Party Option):

- Ties management to vessels
- Used in a variety of transportation industries (International maritime, FAA, RR's)

### 2. USCG Inspection Option:

- A more “traditional” approach for ensuring safe operations and compliance



# Subchapter M

- Added ~400 vessels to UMR's inspected fleet. A 415% increase over previous size. No additional inspectors added to units.
- TSMS option allows third party inspectors to act on behalf of the CG, decreasing the effect on the Marine Inspectors in the long run & allowing a more prompt response to vessel's immediate needs.



# CG & the River Industry

- River Industry Action Groups
  - RIETF, RIAC, IRCA, MRAC, St. Louis HSC
- Waterways Action Plan
  - High Water, Low Water, High Flow, Ice
- Aids to Navigation/USACE Shoaling Coordination
- Facilitating commerce while ensuring the waterway is available to all users



# Sector Upper Mississippi River

## Questions?





Assisting communities to prepare for and respond to possible hazardous materials transportation incidents

RRT Meeting

March 27

Oklahoma City



# OUR SCOPE

A voluntary national outreach effort, established in 1986, that focuses on assisting communities prepare for and respond to a possible hazardous material transportation incident.

**TRANSCAER® members consist of volunteer representatives from:**

- ★ Chemical Manufacturing
- ★ Distribution
- ★ Emergency Response
- ★ Transportation Carriers
- ★ Industry & Industry Associations
- ★ Government Personnel



# OUR PURPOSE

- ★ Promotes safe transportation and handling of hazardous materials.
- ★ Educates and assists communities near major transportation routes about hazardous materials.
- ★ Aids community emergency response planning for hazardous material transportation incidents.



# SPONSORS



ASSOCIATION OF  
AMERICAN RAILROADS



American  
Chemistry  
Council



RFA RENEWABLE  
FUELS  
ASSOCIATION



AMERICAN PETROLEUM INSTITUTE



Industrial Steel Drum Institute



THE CHLORINE INSTITUTE



center for liquefied natural gas



AFPM

American  
Fuel & Petrochemical  
Manufacturers



THE  
FERTILIZER  
INSTITUTE

# PARTNERS



U.S. Department of Transportation  
**Federal Railroad Administration**



U.S. Department of Transportation  
**Pipeline and Hazardous Materials  
Safety Administration**



**NVFC**  
NATIONAL VOLUNTEER FIRE COUNCIL  
FIRE • EMS • RESCUE

# OUR STAKEHOLDERS

HazMat Shippers

Transporters

Regulators

General Public



Emergency  
Responders

Others Interested in  
the Community

Community  
Emergency Planners

# WE OFFER...

## ★ PLANNING ASSISTANCE

Local community assistance to better understand and plan for hazmat transportation emergencies

## ★ TRAINING

Both classroom and hands-on training

## ★ DRILLS AND EXERCISES

Drills to improve the response and handling of actual hazmat emergencies

## ★ WHISTLE STOP TOURS

Hazmat safety training to communities along rail corridors

## ★ REFERENCE AND TRAINING MATERIALS

Technical information about chemicals and transportation equipment for both training and actual emergency response

## ★ NATIONAL CONFERENCES AND WORKSHOPS

Best practices, new programs and resources, and networking with each other

## ★ STATE COORDINATORS

States have a team or coordinator to help local responders connect with chemical and hazardous materials carriers and shippers conferences

# OUR SUCCESSES

**40,626**  
trained in 2018

**Hundreds  
of 1,000s**  
trained since  
1986

**100s**  
of FREE training  
events offered  
yearly

Training on anhydrous ammonia, chlorine, crude by rail, ethanol, steel drums, and highway & rail safety

Sponsored by **10**  
organizations

Collaborate with  
DOT/DOE/EPA/DHS

**21** "Seconds Count -  
Are You Prepared?"  
videos

# 2018 TRANSCAER® TRAINING TOTALS

<b>TRANSCAER® Team Members</b>	<b>Total Number Trained</b>	<b>TRANSCAER® Team Members</b>	<b>Total Number Trained</b>
BNSF Railway	6,786	Renewable Fuels Association	1,805
CN Rail	6,570	Schneider Bulk Services	119
CP	3,589	Tanner Industries	856
CSX Transportation	2,938	The Chlorine Institute	1,965
DANA Transport Inc.	567	The Dow Chemical Company	634
Kansas City Southern	512	Union Pacific Railroad	6,000
Industrial Steel Drum Institute	123	Wheeling & Lake Erie	176
Norfolk Southern Corporation	6,226	Canadian TRANSCAER (Region 6)	1,760

**Total: 40,626**

00:02:32:59

**SECONDS COUNT  
ARE YOU PREPARED?**



## CHECK OUT OUR NEW TRANSCAER® SECONDS COUNT ARE YOU PREPARED? VIDEO SERIES

**21 Short HazMat Training Videos + 8  
interviews with industry professionals**

Find the videos at <https://www.transcaer.com/Seconds-Count>

# FEDERAL RAILROAD ADMINISTRATION PROVIDES GRANT FUNDING SINCE 2010



TRANSCAER® has managed nine consecutive years of grant funding for Transportation Emergency Response Training through the U.S. Department of Transportation's Federal Railroad Administration since 2010.

TRANSCAER® Team members including The Chlorine Institute and Renewable Fuels Association have provided training to thousands of responders nationwide for chlorine and ethanol and rail safety under these grants. The grant support totals over \$577,000.

**\$577K**  
**FRA GRANT SUPPORT**

**Thank you FRA for your support!**

# reaching OUT

TRANSCAER® aims to reach out to a broad spectrum of stakeholders from responders, to government, to industry -- here are some of our OUTREACH efforts we made across North America throughout 2018.



31

## ETHANOL SAFETY SEMINARS SPANNING 7 STATES

**SINCE JANUARY 2018, RFA HAS HELD:**

4 Ethanol Emergency Response  
Train the Trainer webinars/seminars

Trained 338 qualified attendees to teach  
operator level ethanol emergency

1,805 emergency responders trained

725 Trained Online ★ 338 TTT Webinars  
742 Ethanol Safety Seminars





THE  
FERTILIZER  
INSTITUTE

200,000+

RESPONDERS TRAINED SINCE 2011

**ANHYDROUS AMMONIA**

First product specific training program officially  
branded and endorsed by TRANSCAER®

---

180,000+ DVDs Distributed since 2011

---

Hundreds of training tours throughout  
the U.S. since 2011

**TRANSCAER**

preparing communities for transportation incidents · [www.transcaer.com](http://www.transcaer.com)





# 1,965

## TRAINED AT 13 TRAINING EVENTS BY 121 INSTRUCTORS

### 2018 SAFETY TOUR

765 Attendees Trained at 14 Additional CI Emergency  
Response Training & Outreach Events

6 out of 6 TRANSCAER® Regions

11 out of 21 CHLOREP Regions

21 CI Member Companies ★ 6 Class 1 Railroads

★ 51 Training Days





# 400

## REGISTERED PARTICIPANTS AT ISDI'S FIRST TWO WEBINARS WITH TRANSCAER®

**SPONSOR SINCE FEBRUARY 2018**

Steel Drum 101 Webinars = 123 total call-ins

-----  
Steel Drum 101 Webinar hosted in October and December to  
inform and build the knowledge base for first responders

-----  
“The Basics of Steel Drums and Fusible Plugs” video with  
TRANSCAER®, the 29<sup>th</sup> Seconds Count video





AMERICAN PETROLEUM INSTITUTE

# 1000s OF CRUDE BY RAIL DVDs DISTRIBUTED

**SINCE JANUARY 2015**

The Crude By Rail Safety Course rolled out nationwide via TRANSCAER® team members and Class I railroads.

---

Available through national/state/local hazmat & emergency response conferences across the U.S.

# 156,581

## FIRST RESPONDERS TRAINED

**SINCE 2015**

The railroads trained 88% of the first responders reached through TRANSCAER last year.

In 2018 the railroads hosted 649 training events!



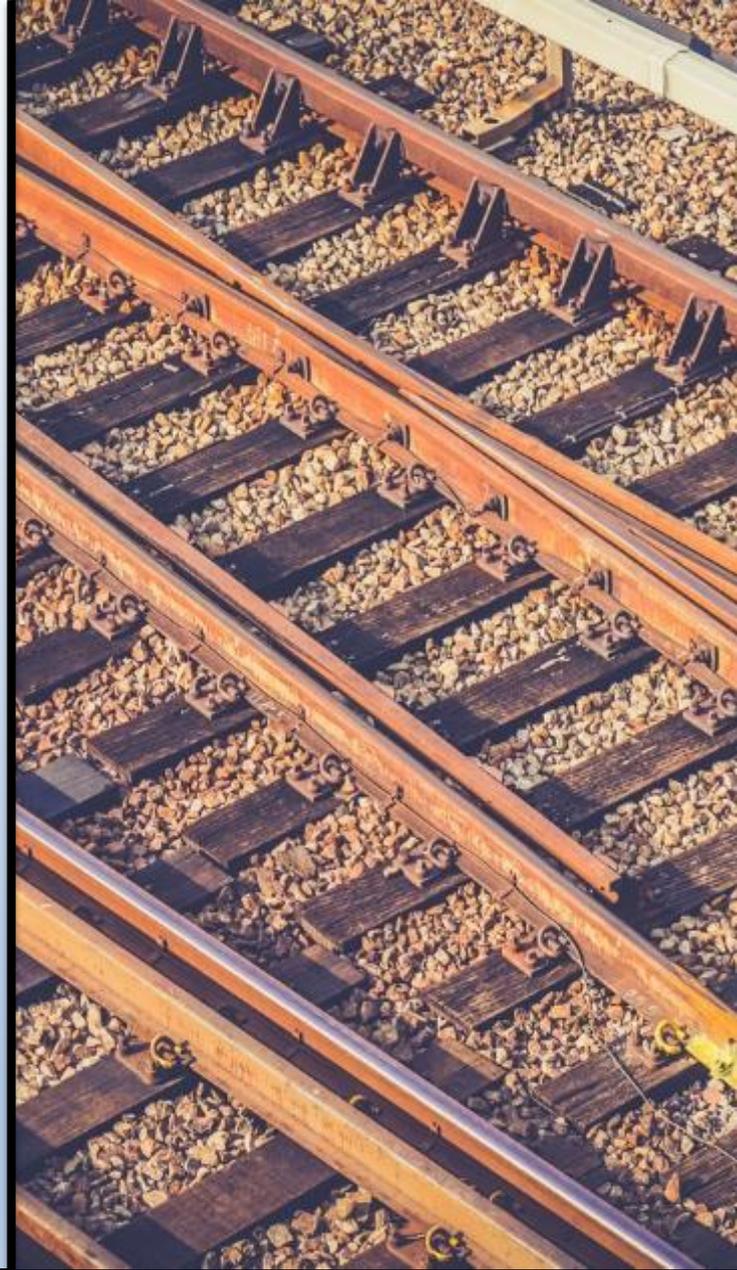
*Wheeling & Lake Erie*  
RAILWAY COMPANY



*BNSF*

**CP**

[ **CSX** ]

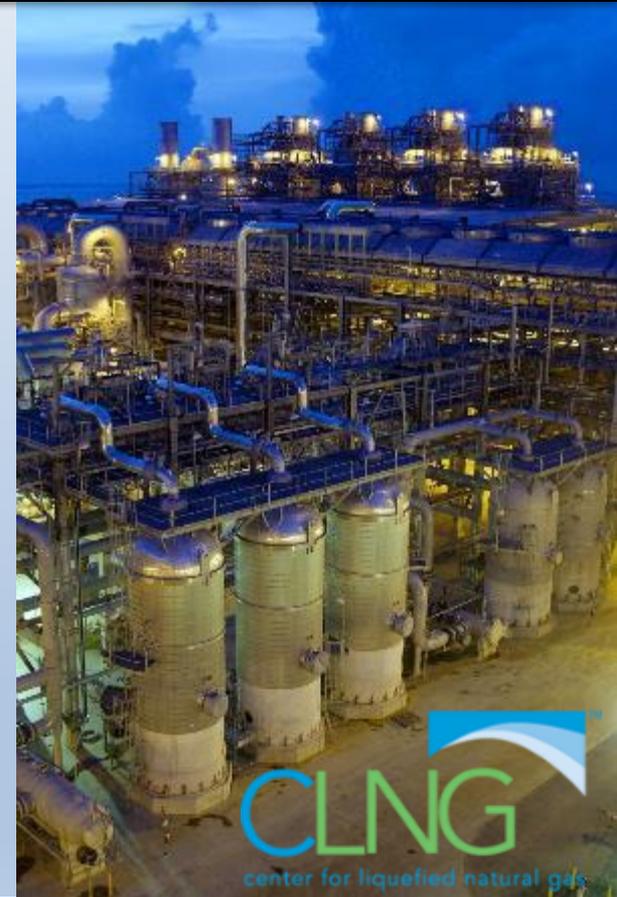


# New TRANSCAER Sponsors

SPONSORS SINCE 2018



Stay tuned...more to  
come from these  
Sponsors in 2019!





**NOT CURRENTLY  
INVOLVED?**



**HOW ARE YOU  
CURRENTLY  
ENGAGING WITH  
FIRST RESPONDERS?**

# WAYS TO GET INVOLVED

## NATIONAL TRANSCAER® TASK GROUP PROVIDES:

- ★ Strategic Leadership
- ★ Resources and assistance to Regional & State Coordinators

## REGIONAL & STATE COORDINATORS:

- ★ At the regional and state level, TRANSCAER® representatives work to implement the TRANSCAER mission

# Regional & State Coordinators – Open Positions

- Arizona
- District of Columbia
- Hawaii
- Iowa
- Maine
- Massachusetts
- Montana
- Oregon
- Rhode Island
- South Dakota
- Vermont
- Wyoming
- Region 4
- Region 5 – seeking Co-Coordinator

*Region 4: Alaska, California, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming*

*Region 5: Arkansas, Louisiana, Oklahoma, and Texas*

**TRANSCAER<sup>®</sup>**

**CONNECT  
with US!**

**STAY UP TO  
THE MINUTE**  
on News & Events



**Facebook:** [www.facebook.com/TRANSCAER/](http://www.facebook.com/TRANSCAER/)

**Twitter:** [www.twitter.com/transcaer](http://www.twitter.com/transcaer)

**LinkedIn:** [www.linkedin.com/groups/2639218](http://www.linkedin.com/groups/2639218)

**Instagram:** [www.instagram.com/transcaer/](http://www.instagram.com/transcaer/)

# THANK YOU!

FOR MORE INFORMATION, CONTACT:

Erica Bernstein

Director - Outreach

CHEMTREC®

Falls Church, VA 22042

(703) 741-5524 *office*

(804) 357-4758 *cell*

[ebernstein@chemtrec.com](mailto:ebernstein@chemtrec.com)

[transcaer@chemtrec.com](mailto:transcaer@chemtrec.com)



# Safety Alliance of Cushing

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# The Alliance

Chairman - Cindy O'Kelley, DeepRock

Vice Chairman - Jody Cundiff, NGL

Reporter - LeighAnn Brown, Roserock

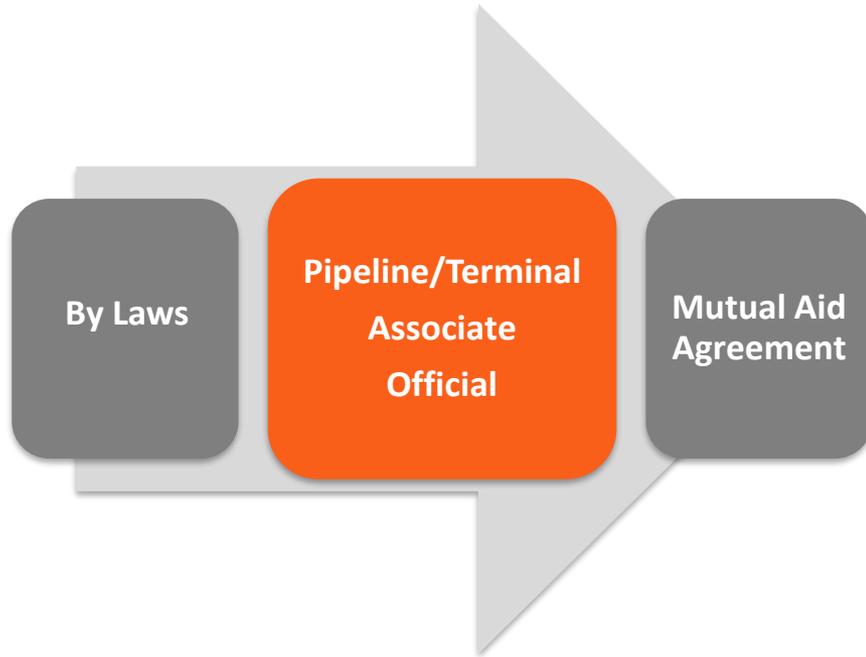
Treasurer - Chris Wilson, Magellan

# Purpose



# Members

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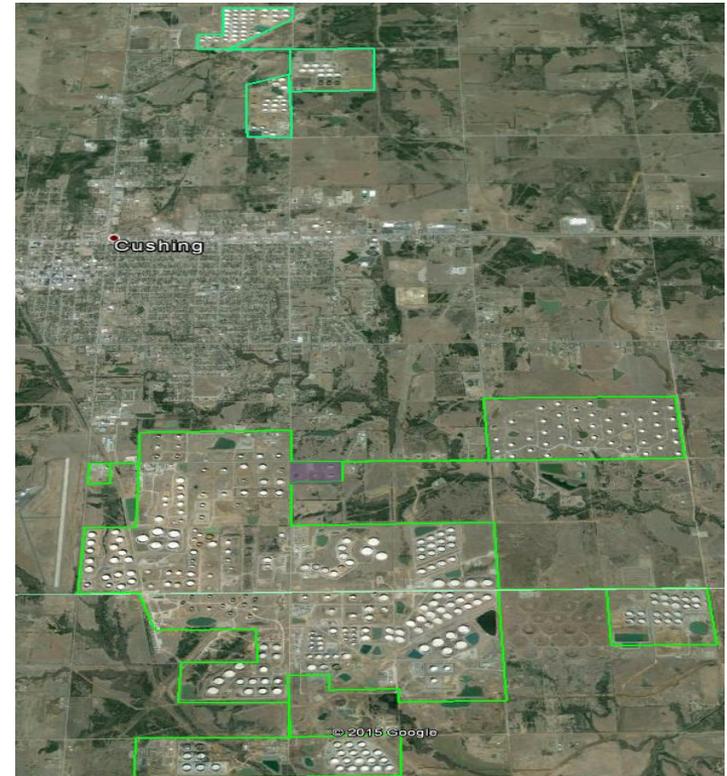
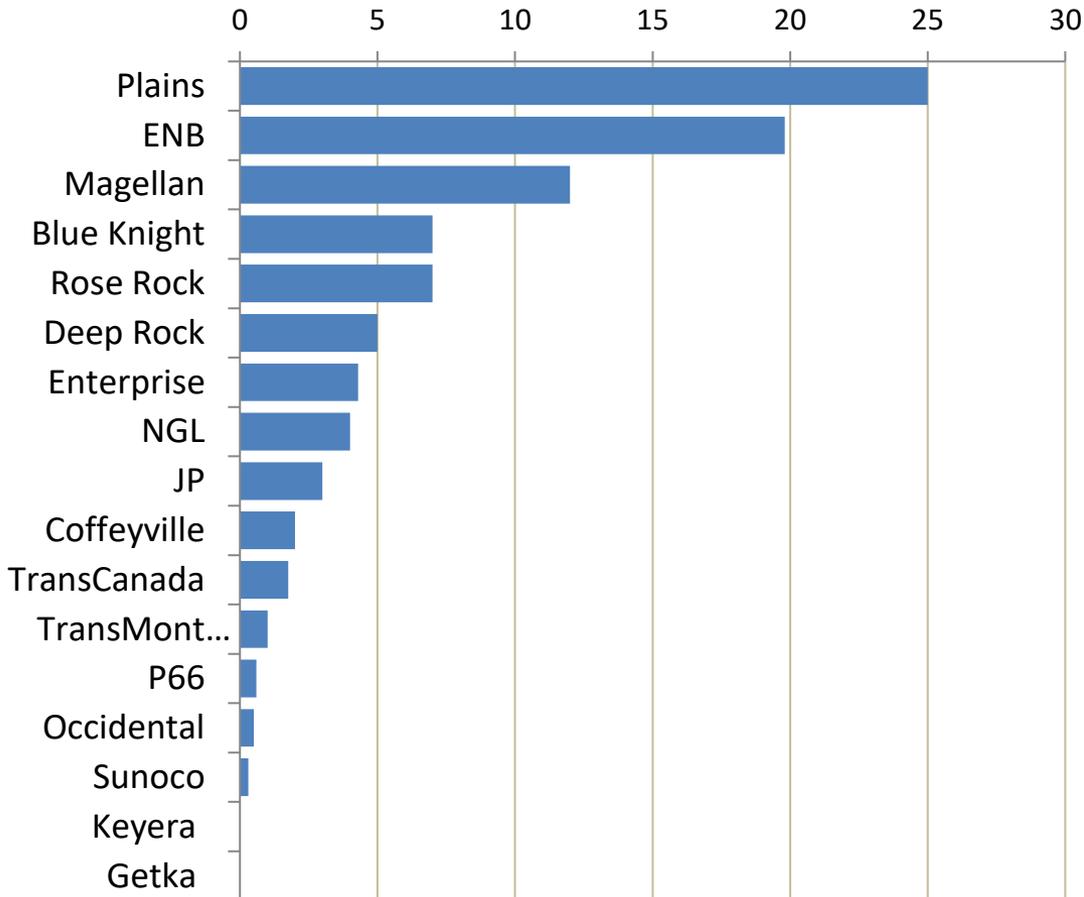


- 14 Oil and Gas Companies
- Local Law & Fire Officials
- Local, County & State EM's
- Oklahoma Highway Patrol
- Payne & Lincoln County Sheriff Departments
- Various City of Cushing Officials
- County Commissioners
- FBI, Secret Service, Homeland Security, National Guard, OSBI, TSA
- Numerous Contractors

# Members- Terminal/Pipeline



## Shell Capacities



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# Communications

# Communications

- SAC Hand Held / Base Radios for Pipeline/Terminal Facilities
- Nixel – Emergency Communications System



## Cushing Police Department

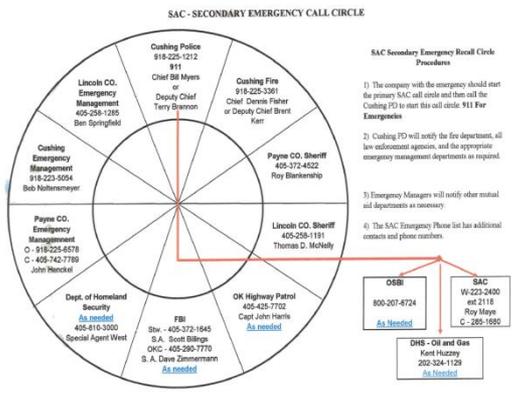
Advisory: Update\*\*\*\*\*Cushing PD to conduct SAC Radio Test at 08:00 am today

Dear Katy Mays,

Update\*\*\*\*\*Cushing PD to conduct SAC Radio Test at 08:00 am today

This morning's test result showed loud and clear for the following:

- Blue Knight
- Centurian
- Phillips 66
- CVR
- Deeprock
- Enbridge
- Enterprise
- Magellan
- NGL
- Plains
- Rose Rock
- Sunoco
- TransCanada



Current as of February 2005



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# Resources

## Resources

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- 9 – 6,000 GPM trailer mounted pumps
- 1 – 9,000 GPM trailer mounted pump
- 4 – 6,000 GPM trailer mounted monitors
- 78 – 265 gallon totes of AR-AFFF foam
- 3 – Foam proportioning trailers
- 11,900 ft. of 7 1/4" fire hose
- 1 – Hose reel trailer
- 1 – Industrial response trailer
- Other miscellaneous equipment
- Coming soon – 2019 Pierce 3,000 GPM industrial fire engine (expected delivery date of January 2020)



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# Training

# Training

- Williams Fire and Hazard Control Industrial Fire Training- Beaumont, TX
- EOC/ICS Interface Training
- Williams Fire and Hazard Control Industrial Fire Training- Cushing, OK

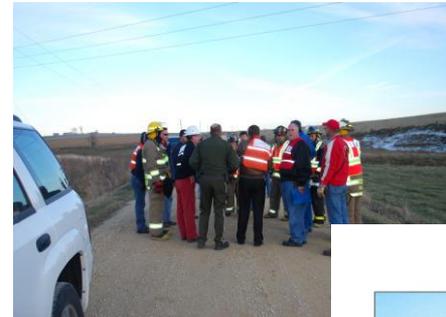


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# Exercises

# Exercises

- Tornado Full Scale Exercise May 2013
- Enbridge Tank Fire Deployment August 2013
- NGL Fire Drill June 19, 2014
- Terrorism and Emergency Management Planning Workshop January 2016
- Earth, Wind and Fire Statewide Exercise 2017
- Cushing Pipeline Junction Table Top Exercise, November 2017
- Enbridge Tank Fire Deployment October 2018



**Cushing Pipeline Junction  
Tabletop Exercise**

Situation Manual  
November 14, 2017

# Exercise - Tornado FSE

**Date:**

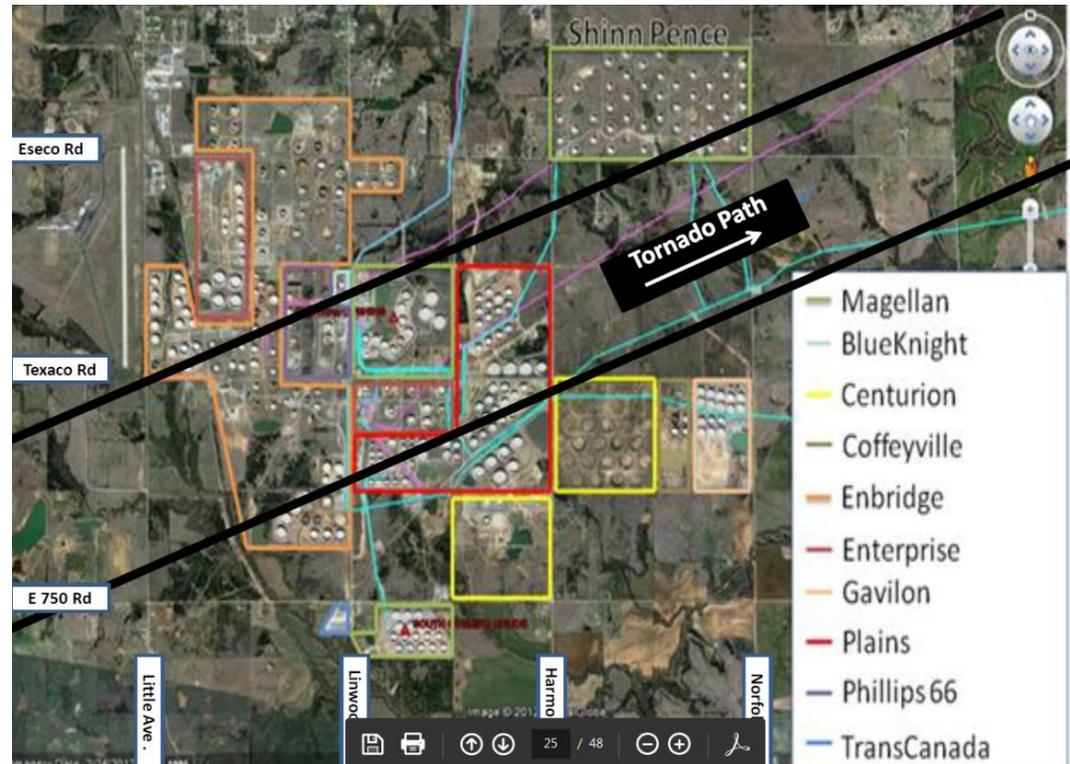
May 20, 2013

**Location:**

Cushing, OK & Drumright, OK

**Participants:**

- Cushing Fire, Police & EM
- Payne County Sheriff Dept
- OK Highway Patrol
- OK Corp Commission
- FBI
- OK Emergency Management
- OK National Guard
- PHSMA
- Terminal/Pipeline Companies



# Exercises - Tank Fire Deployments



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# Response

# Response

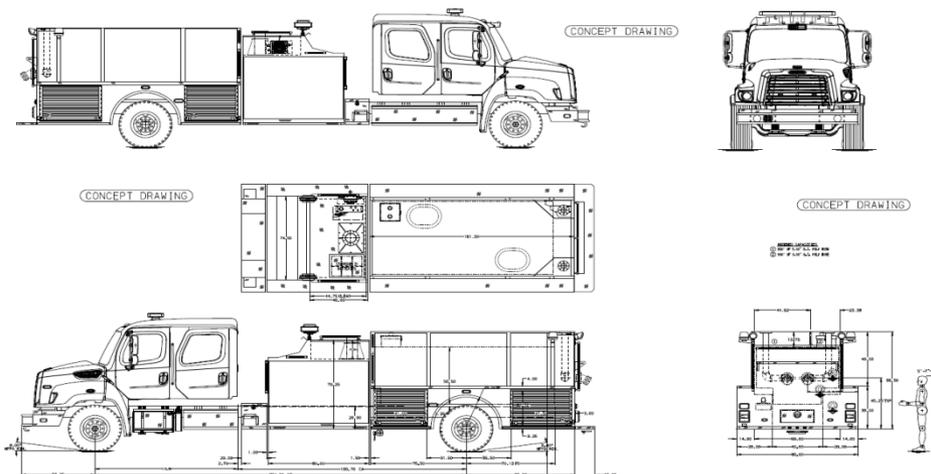


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# Supporting Community

# Supporting Community

- Red Cross Trailer
- Training Simulator-Milo Range Classic
- Drug Dog (K9 Stillwater)
- Safe Haven Shelter
- Industrial Pumper
- International Association of Fire Fighters  
Cushing Firefighters Association



# Q & A

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# Office of Pipeline Safety

## Pipeline and Hazardous Materials Safety Administration

# Overview



**JOINT RRT 6/7**  
**Spring 2019**  
**Oklahoma City, OK**



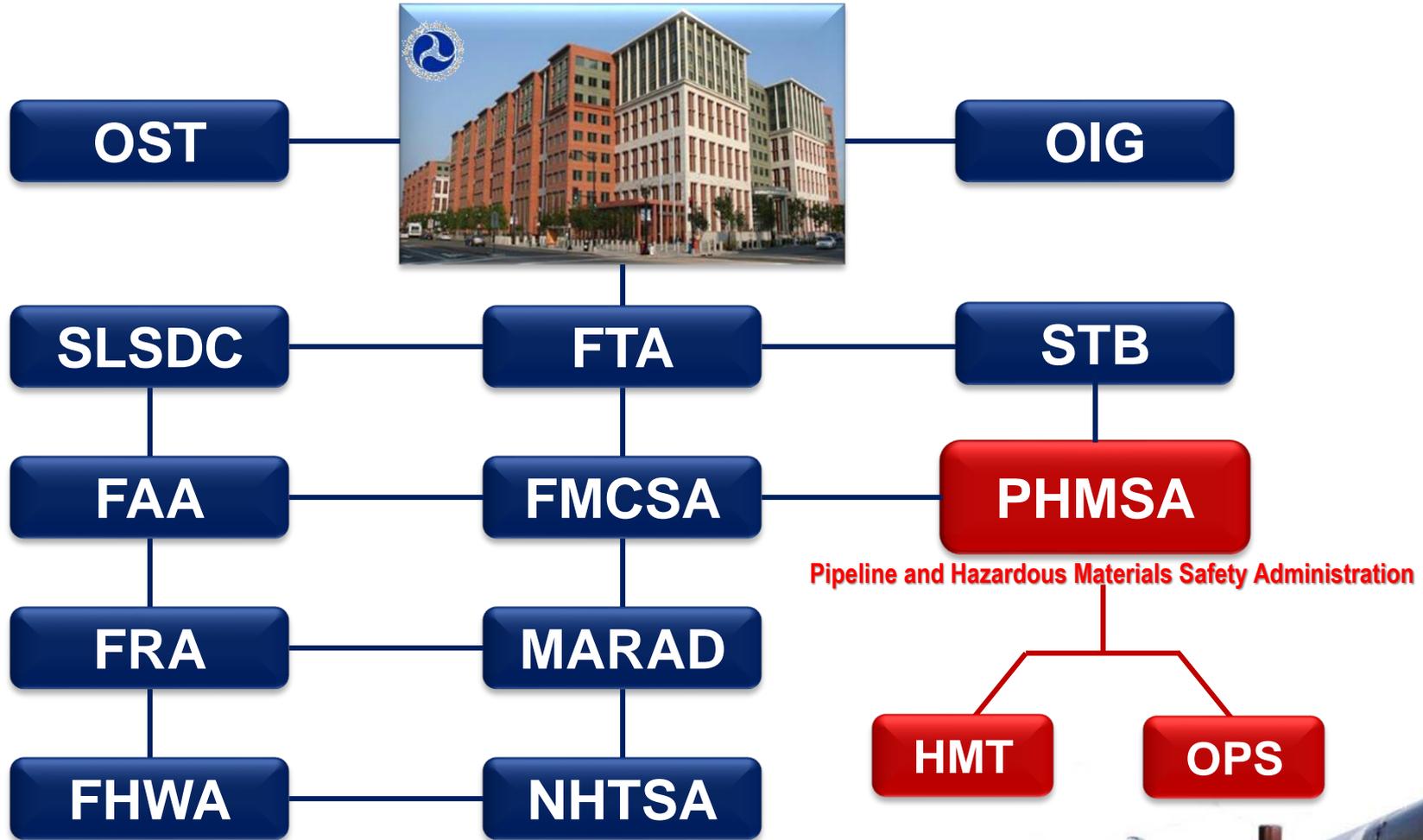
# Objective

- Introduce PHMSA
- Establish an understanding how PHMSA can be a resource
- PHMSAs' Accident Investigation Teams updates



# Who is PHMSA?

U. S. Department of Transportation (DOT)



# PHMSA Regional Offices



# PHMSA (OPS) Pipeline role

- Regulates interstate pipelines
  - Natural Gas
  - Hydrocarbons
  - Ammonia
  - Carbon Dioxide
  - And more
  
- PHMSA does not have response authority





# PHMSA Reporting requirements

- PHMSA has NRC reporting requirements for pipeline systems
  - Initial (within earliest practical moment following discovery but no later than 1 hour
    - Gas
      - An event involving a release of gas
        - » A death, or personal injury necessitating in-patient hospitalization
        - » Greater than \$50,000 estimated property damage
        - » Unintentional estimated gas loss of 3 million cubic feet or more
      - An event that results in an emergency shutdown of an LNG facility or natural gas storage facility
      - An event that is characterized as significant by operator
    - Hazardous Liquids
      - An event involving the release of a liquid
        - » A death, or personal injury necessitating in-patient hospitalization
        - » Incident involved a fire or explosion
        - » Greater than \$50,000 property damage including the cost of the cleanup, value of product
        - » Resulted in pollution of any stream, river, lake, reservoir or similar body of water
        - » An event that is characterized as significant by operator
  - 48-hour
    - Must provide an update to confirm/revise initial information reported.



# Available PHMSA OPS resources

- Have agreements and partners with States to implement rules
- PHMSA has PREP guidelines
- PHMSA regulates pipeline operators readiness and response effectiveness
- PHMSA has FRP repository for pipelines
  - Often fixed facilities are also regulated by EPA and/or USCG
  - Available to OSCs by request
- Made up of primarily field staff
  - Highly technical
  - Engineers and Transportation Specialist



# PHMSA

## Office of Pipeline Accident Investigation Division (AID)

9 (+1) Investigators  
1 Data Analyst

Director – Peter Katchmar

Motto: Investigate – Analyze – Prevent



U.S. Department of Transportation  
Pipeline and Hazardous Materials  
Safety Administration

"To protect people and the environment by advancing the safe transportation of energy  
and other products that are essential to our daily lives"

Established April 1, 2017



# PHMSA Accident Investigation Division

- **PURPOSE**

- Evaluates all reports of incidents/accidents
  - Investigates all PHMSA regulated pipeline incidents
    - Consider details of report
- Conducts Accident Investigations
- Conducts Root Cause Determinations to determine causal and contributing factors to pipeline and liquefied natural gas facility incidents
- Captures and actively shares lessons learned safety finding with internal and external stakeholders.
- Conducts education and outreach to help advance pipeline safety
- Evaluates and identify emerging safety trends
- Coordinates incidents with state and federal partners



# National Pipeline Incident Coordinator (NPIC)

- NPIC toll-free: (888) 719-9033
- PHMSAAccidentInvestigationDivision@dot.gov



# Deployment Criteria

A release of product and one or more of the following:

- ✓ Death
- ✓ Personal injury necessitating hospitalization
- ✓ Property damage exceeding \$500K
- ✓ Hazardous liquid spill of 500 or more barrels
- ✓ Fire or explosion
- ✓ Major spill into a body of water
- ✓ Pipeline systems with recent failure history
- ✓ Significant media attention
- ✓ Release impacted:
  - an HCA
  - High Population Area
  - Other Populated Areas
  - Commercially navigable waterway, or major waterbody
  - Unusually Sensitive Area (USA) - (drinking water resource, ecological, threatened species)





- 8/7/17, Minneapolis, MN
- 3<sup>rd</sup> Party Damage
- 100+ people evacuated (60 kids)
- Stub knocked off by bulldozer 3' below grade. Pipeline was marked earlier in the day.



U.S. Department of Transportation  
Pipeline and Hazardous Materials  
Safety Administration

## Investigate – Analyze – Prevent

To Protect People and the Environment From the Risks of  
Hazardous Materials Transportation



# Natural Gas Pipeline Explosion

Dixon, IL

Occurred when agricultural equipment struck pipeline  
2 fatalities, 2 injuries



U.S. Department of Transportation  
Pipeline and Hazardous Materials  
Safety Administration

## Investigate – Analyze – Prevent

To Protect People and the Environment From the Risks of  
Hazardous Materials Transportation





AMERICAN PETROLEUM INSTITUTE

# API Recommended Practice 1174

## Recommended Practice for Onshore Hazardous Liquid Pipeline Emergency Preparedness and Response

FIRST EDITION | DECEMBER 2015 | 48 PAGES | \$93 | PRODUCT NO. D11741

This Recommended Practice (RP) provides to operators of onshore hazardous liquid pipelines a framework that promotes the continual improvement of emergency planning and response processes, including identification and mitigation of associated risks and implementation of changes from lessons learned. This RP assists the operator in preparing for a safe, timely, and effective response to a pipeline emergency.

For ordering information:

Online: [www.api.org/pubs](http://www.api.org/pubs)

Phone: 1-800-854-7179  
(Toll-free in the U.S. and Canada)

(+1) 303-397-7056  
(Local and International)



U.S. Department of Transportation  
Pipeline and Hazardous Materials  
Safety Administration

### Investigate – Analyze – Prevent

To Protect People and the Environment From the Risks of  
Hazardous Materials Transportation



# Hazardous Materials Accident Investigation Team



# Background

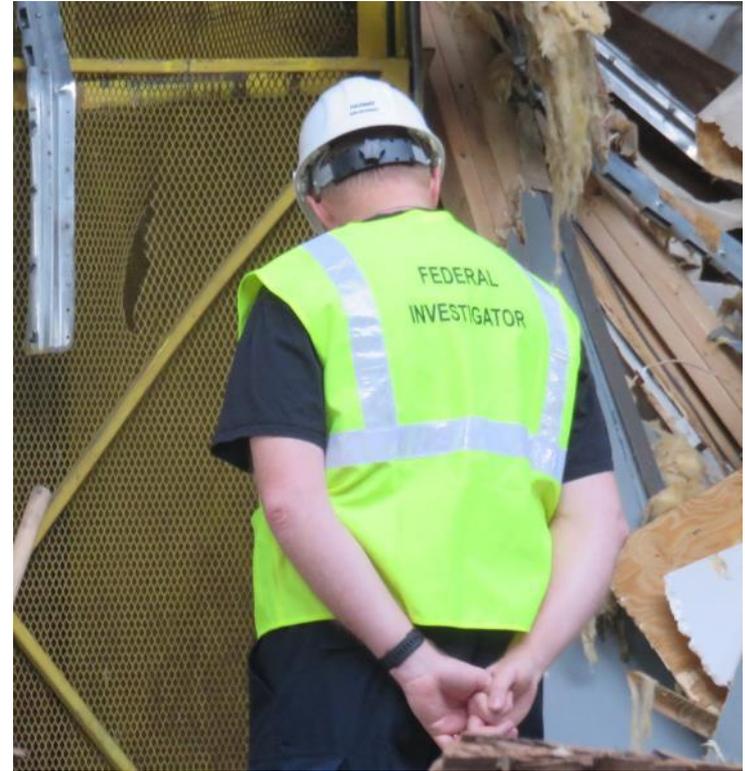
**Team Start Date:** October 2018

**Team Make-Up:** 1 Supervisor, 1 Team Lead, 2 Investigators

**Investigation Types:** “Cradle to Grave”, all modes/all packages

## **Purpose:**

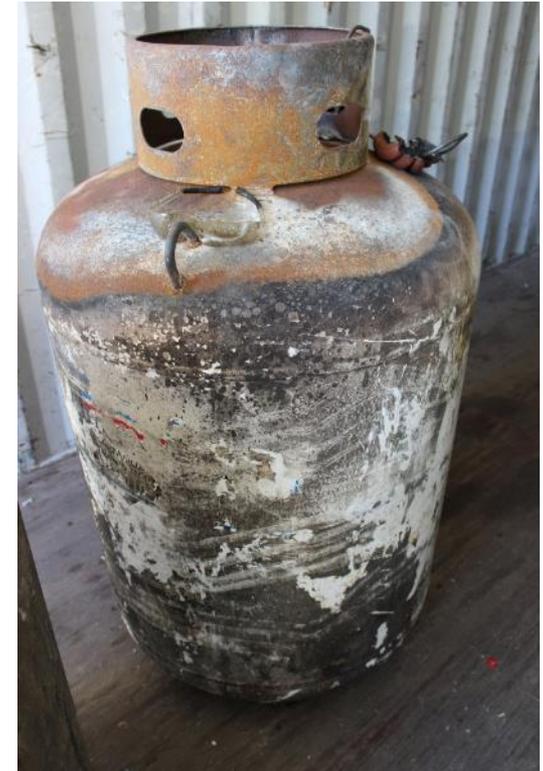
- ❖ Become proactive instead of reactive towards accidents and their prevention
- ❖ Identify best practices to deter future accidents
- ❖ Track and respond quickly to emerging trends
- ❖ Establish specialized and recurrent root cause training for investigators



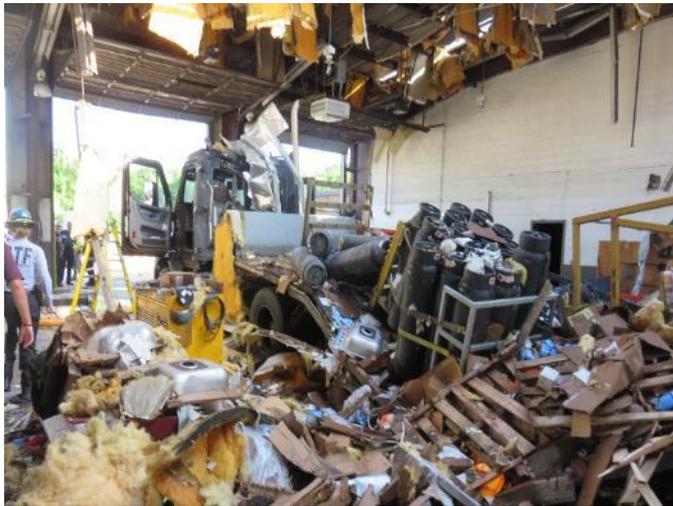
# Response Triggers

Death and/or major injury from the release of hazmat involving:

- Incidents of national significance
- Bulk and Non-bulk package failures
- Request of NTSB
- Emerging Trends
- Special Permit
- Lithium-Ion Battery



# Post-Investigation



- Case Review Panel conducted on most serious investigations
- Investigation findings/conclusions may lead to:
  - Follow-up Compliance Inspections
  - Engagement with Stakeholders
  - Consideration for changes to Regulations
  - Improvements to Special Permits
  - Science and Technology Research



# Office of Hazardous Materials

## Southwest Region Field Operations (RRT 6)

Director Matt Ripley (713) 272-2820

Chief Investigator - Vacant

Investigator Shawn Daniels

Investigator Tom Lynch

Investigator Johnny Benavidez

Investigator Felix Gonzalez

Investigator Ryan Rigdon

Investigator David Smith

Investigator Walter “Tay” Rucker

Investigator Alan Carson

Investigator Dollie DeWalt

Investigator Sherrod Proctor

Investigator Chevella Smith

Investigator Scott Yoder

Outreach and Engagement (HMSAT) Mike Roberts

DOT Crisis Management Center: (202) 366-1863



# Office of Hazardous Materials Central Region Field Operations (RRT 7)

Director Tyler Patterson (816) 329-3815

Chief Investigator Tiffany Ziemer

Investigator Mark Razny

Investigator Tim Buffum

Investigator Dan Richards

Investigator Ted Turner

Investigator Shirley Mcnew

Investigator Mike Jennens

Outreach and Engagement (HMSAT)

Neal Suchak

Central Region Office, Kansas City, MO (816) 329-3802

DOT Crisis Management Center: (202) 366-1863



# Office of Hazardous Materials Hazardous Materials Accident Investigation Team (National)

Supervisor - Vacant

Team Lead – Sean Lynum (909) 329-0474

Investigator: Kurt Stewart

Investigator: Dave Meckfessel

[HM\\_Accident\\_Investigation@dot.gov](mailto:HM_Accident_Investigation@dot.gov)

DOT Crisis Management Center: (202) 366-1863



# PHMSA

## Emergency Contact Information

**NPIC toll-free: (888) 719-9033**

**[PHMSAAccidentInvestigationDivision@dot.gov](mailto:PHMSAAccidentInvestigationDivision@dot.gov)**

**DOT Crisis Management Center (202) 366-1863**

Investigate – Analyze – Prevent





# TRIPR

## FLAMMABLE LIQUID UNIT TRAINS



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration



# TRIPR Joint Training Program

## Objective

- Promote pre-incident engagement

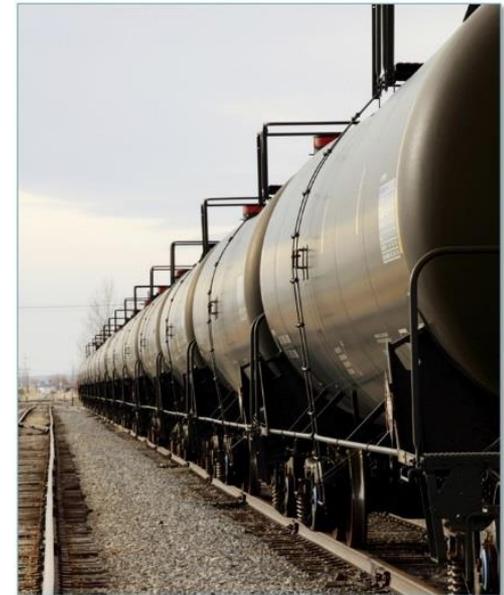
RR's

States

Local first responders

Tribes

Federal agencies





**Focus on Crude Oil & Ethanol rail incidents**

**Collaboration with Stakeholders to develop resources that are focused on sharing incident management best practices to better prepare first responders**

**HIGH HAZARD FLAMMABLE LIQUID TRAIN (HHFT) INCIDENTS:**

**MYTHS, FACTS AND OBSERVATIONS**

**Gregory G. Noll, CSP, CEM**  
**South Central (PA) Task Force**  
**January 25, 2016**

**INTRODUCTION**

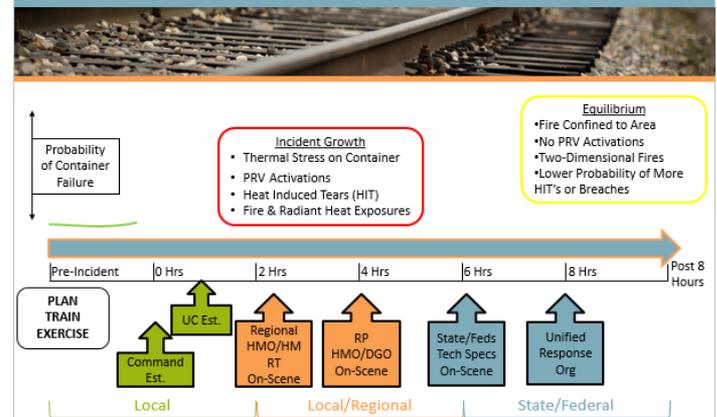
Changes in the North American energy sector have brought new challenges to the emergency response community, especially in many geographic areas where there has not historically been a large energy sector footprint. These changes have involved oil and gas exploration, production and manufacturing facilities, as well as the expansion of transportation modes, corridors and operations to meet the needs of the emerging marketplace.

This background paper will focus on flammable liquid unit trains, primarily those transporting crude oil and ethanol. The U.S. Department of Transportation – Pipeline and Hazardous Materials Safety Administration (DOT / PHMSA) defines High Hazard Flammable Liquid Trains (HHFT) as trains that have a continuous block of twenty (20) or more tank cars loaded with a flammable liquid or thirty-five (35) or more cars loaded with a flammable liquid dispersed through a train.

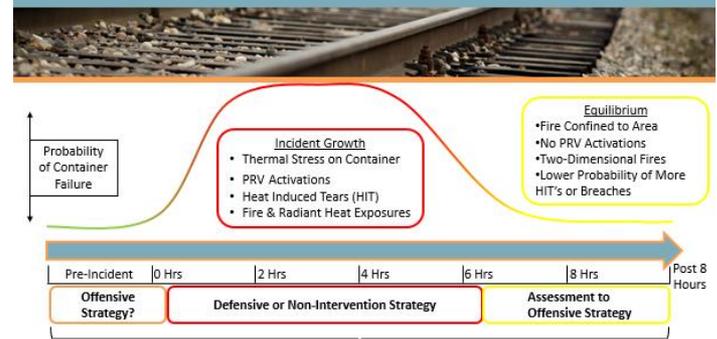
The objectives of this paper are to assist emergency planning and response personnel in preparing for HHFT incident scenarios. The information is based upon an analysis of previous

**Response Training based on the HHFT Paper**

**Stress / Breach / Release behaviors**



**PROBLEM vs. Response Timeline**



- Risk Based Response**
- Analyze Problem
  - Assess Hazards
  - Evaluate Risks / Consequences
  - Available Resources
  - Appropriate Response



# HIGH HAZARD FLAMMABLE LIQUID UNIT TRAIN (HHFT) PAPER



## **TRANSPORTATION RAIL INCIDENT PREPAREDNESS & RESPONSE:**

### **HIGH HAZARD FLAMMABLE LIQUID UNIT TRAIN (HHFT) EMERGENCY RESPONSE SUPPLEMENTAL INFORMATION**

#### **INTRODUCTION:**

Changes in the North American energy sector have brought new challenges to the emergency response community, especially in many geographic areas where there has not historically been a large energy sector footprint. These changes have involved oil and gas exploration, production and manufacturing facilities, as well as the expansion of transportation modes, corridors and operations to meet the needs of the emerging marketplace.

This background paper will focus on flammable liquid unit trains, primarily those transporting crude oil and ethanol. The U.S. Department of Transportation – Pipeline and Hazardous Materials Safety Administration (DOT / PHMSA) defines High Hazard Flammable Liquid Trains (HHFT) as trains that have a continuous block of twenty (20) or more tank cars loaded with a flammable liquid or thirty-five (35) or more cars loaded with a flammable liquid dispersed through a train.

The objectives of this paper are to assist emergency planning and response personnel in preparing for HHFT incident scenarios. The information is based upon an analysis of previous HHFT incidents that have occurred, the lessons learned, and the input and experiences of emergency response peers representing the railroad and petroleum industries, emergency response contractors, and the public safety emergency response community. See the Annex for the list of emergency response peers who participated in this process.

The information provided in this paper is intended to supplement HHFT planning and training information already being used within the emergency response community, such as the DOT / PHMSA Petroleum Crude Oil Commodity Preparedness and Incident Management Reference Sheet (September 2014). The issues outlined in this paper focus upon "What do we know about HHFT emergency response and incident management operations that is considered to be either factual or has been validated through science or engineering?" and "What have we repeatedly observed at HHFT scenarios but has not yet been validated by either science or testing?"

#### **RISK-BASED RESPONSE:**



## Transportation Rail Incident Preparedness & Response Training (TRIPR)

**TRIPR**  
FLAMMABLE LIQUID UNIT TRAINS

**Transportation Rail Incident Preparedness & Response (TRIPR) Liquid Unit Trains** resource materials developed in by DOT in 2015.

**Team:** Public safety agencies, rail carriers, and industry subject matter experts.

**Purpose:** Prepare first responders to safely manage rail incidents involving crude oil and ethanol.

**Target Audience:** Haz-Mat First Responders

  
U.S. Department  
of Transportation  
**Pipeline and  
Hazardous Materials  
Safety Administration**



United States Department of Transportation

PHMSA  
Pipeline and Hazardous Materials  
Safety Administration

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Call to Action

Operator Classification

Emergency Response and Training

## Transportation Rail Incident Preparedness and Response

### Overview

The Transportation Rail Incident Preparedness and Response, Flammable Liquid Unit Trains resource materials were developed to provide critical information on best practices related to rail incidents involving hazard class 3 flammable liquids, such as crude oil and ethanol. A key component of this initiative is to learn from past experiences and to leverage the expertise of public safety agencies, rail carriers, and industry subject matter experts in order to prepare first responders to safely manage incidents involving flammable liquid unit trains.

These training resources offer a flexible approach to training the first responders and emergency services personnel in pre-incident planning and response. Each module contains a PowerPoint presentation, Student Workbook, and Instructor Lesson Plan. In addition to these materials, there are three interactive scenarios with animation and introduction videos to help instructors lead tabletop discussions. Click on the link below to download the TRIPR materials.

#### TRIPR Resources

<http://dothazmat.vividlms.com/tools.asp#P>

Updated: Wednesday, May 3, 2017

#### Contact Us

**Hazardous Materials Energetic Materials Approvals**  
U.S. Department of Transportation,  
Pipeline and Hazardous Materials Safety Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590  
United States

Phone: 202-366-4511  
Alt: 800-467-4922  
Fax: 202-366-3753

#### Share

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# Self Study Resources available on-line



ES CONTACT SYSTEM REQUIREMENTS

## Transportation Rail Incident Preparedness & Response

Incident Management  
Revision 2.0

Problem Identification  
Revision 2.0

Hazard Assessment & Risk Evaluation  
Revision 2.0

Select Proper PPE  
Revision 2.0

Logistics & Resource Management  
Revision 2.0

Select & Implement Response  
Revision 2.0

Clean-up & Post-Emergency Operations  
Revision 2.0

Scenarios  
Revision 2.0

Transportation Rail Incident Preparedness and Response, Flammable Liquid Unit Trains resource materials updated to provide critical information on best practices related to rail incidents involving hazard class 3 liquids, such as crude oil and ethanol. A key component of this initiative is to learn from past incidents and to leverage the expertise of public safety agencies, rail carriers, and industry subject matter experts to prepare first responders to safely manage incidents involving flammable liquid unit trains.

Resources offer a flexible approach to training the first responders and emergency services for incident planning and response. Each module contains a PowerPoint presentation, Student Workbook, and Lesson Plan. In addition to these materials, there are three interactive scenarios with video and audio to help instructors lead tabletop discussions. Click on the images above to view more details.

Updated on November 1st, 2018. The Summary of Changes document is available with Revision 2.0.

PHAS, Division 8, Photographer David Carlson

# Self-Study Resources available on-line

### Resources

- Instructor Lesson Plan
- Student Workbook
- Emergency Response Supplemental Info
- Reference Sheet for Crude Oil
- Evaluation C...
- Summary...
- Fe...



## Transportation Rail Incident Preparedness & Response (TRIPR) Training Events

Objective is to promote pre-incident engagement among:

- Railroads
- States
- Local First Responders
- Tribes
- Federal Agencies



*Host OSC leads local planning group, establishes venue and determines target audience*



## TRIPR TRAINING MODULES



Classroom agenda includes:

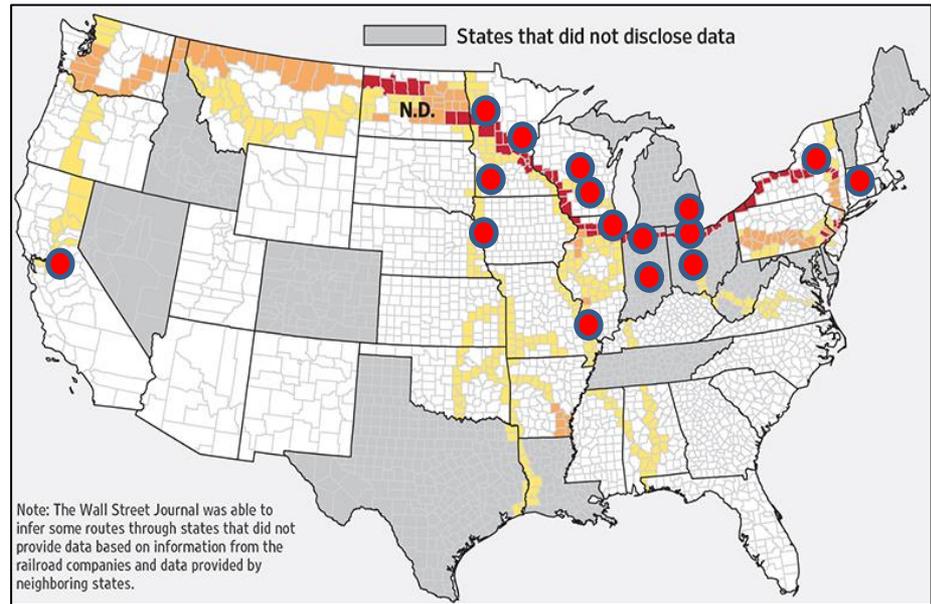
HHFT Paper Overview  
RR Case Studies  
Panel Discussion  
Air Monitoring

- **1.0 Pre-Incident Planning (EPA/DOT)**
- **2.0 Incident Management Principles**
- **3.0 Problem Identification**
- **4.0 Hazard Assessment & Risk Evaluation**
- **5.0 Select Proper PPE Clothing & Equipment**
- **6.0 Logistics & Resource Management**
- **7.0 Select & Implement Response Objectives**
- **8.0 Clean-up & Post-Emergency Operations**
- **9.0 Scenarios**



# TRIPR - EVENTS TO DATE

Location	Date	# Attendees
Taylor, MI	1/25/2017	400
Bowling Green, OH	3/15/2016	220
Prairie Island, MN	4/27/2016	65
South Bend, IN	6/20/2016	66
Uncasville, CT	8/16/2016	17
Marshall, MN	8/24/2016	98
Moorhead, MN	10/5/2016	55
Albany, NY	11/30/2016	120
Indianapolis, IN	12/14/2016	61
Stevens Point, WI	2/15/2017	81
Wisconsin Dells, WI	3/7/2017	44
St. Louis, MO	5/23/2017	80
Onawa, IA	8/8/2017	67
Oak Forest, IL	9/29-30/2018	140
Sacramento, CA	9/4/2018	40
Columbus, OH	6/6/2018	



Fire Operations	65%
Emergency Management	10%
Public Health	10%
Fire Chiefs	5%
Law Enforcement	5%
State/Federal	5%



## Tabletops / Exercises / Other Events

Type	Location	Date	# Attendees
Bakken Crude Oil Workshop / TTX	Elmhurst, IL	8/30/2016	180
CSX Crisis Management Exercise	Riverdale, IL	7/13/2016	80
Lake County LEPC Conference	Grayslake, IL	11/9/2016	40
NRT Worker Safety & Health Technical Conference	Washington, DC	10/19/2016	65
Oak Lawn DHS TTX	Oak Lawn, IL	3/3/2016	100
Midwest ER TTX	Rockford, IL	4/12-13/2016	120
WAHMR	Stevens Point, WI	2/11-12/2016	100
Lake County IEHA Conference	Michigan City, IN	Nov-16	120
IEMA Annual Training Summit	Springfield, IL	9/6/2017	50
Regional Rail & River Response TTX	St. Paul, MN	4/9/2017	70
AMSTEP Full Scale Exercise	Inver Grove Hts, MN	9/12/2018	100
Operation Swift Current TTX	Manistique, MI	Sep-18	130
Freeborn County	Albert Lea, MN	Dec-18	120
			1275



# Coordinated Response Exercise

Region VI & VII Regional Response Team Meeting – Presenter: Randall C. Duncan MPA, CEM®



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# Why does Paradigm do these programs?

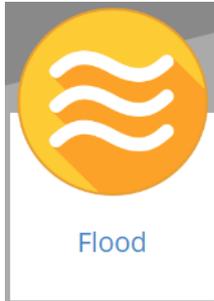
- **Our clients that operate interstate pipelines are regulated at the Federal Government level by the Pipeline & Hazardous Materials Administration (PHMSA), U.S. Department of Transportation**
- **This falls under 49 CFR 192.616 and 49 CFR 195.400**
- **Consensus Standard: American Petroleum Institute's Recommended Practice 1162**
- **Our clients operating intra-state pipelines are regulated by state-level regulators, who often use similar criteria to PHMSA.**
- **How do we help our clients meet their regulatory responsibility?**
  - **Providing outreach and training to Public Officials, Emergency Officials and Excavators at about 1,200 sessions in 42 states across the United States**

# Why does Paradigm do these programs (cont'd)?

- Because our contract trainers and training staff all have a background in emergency response:
  - Law Enforcement
  - Fire
  - Emergency Management
- More importantly – because each of us has been in the place of the emergency responder needing / awaiting assistance “on scene.”

# Why does Paradigm do these programs (cont'd)?

## Example of why it is important we have emergency responder background



- Recent flooding in Nebraska
- Nebraska Energy Office was aware of Paradigm programs in the state.
- They had an issue with a pipeline being “uncovered” as the result of floodwaters.
- They knew the pipeline belonged to TransCanada (one of our clients), but were unable to establish contact. NEO reached out to Paradigm.
- We helped to get our TransCanada point of contact in touch with NEO
- Paradigm is willing to serve as an information resource to any state or the federal government when there’s an emergency in progress
- Paradigm is a registered government contractor under SAM

# Paradigm an emergency information resource?

IOWA

**CORE**

**Coordinated Response Exercise For First Responders**



**Program Guide**

- Overview
- Operator Profiles
- Emergency Response

**KANSAS PIPELINE ASSOCIATION KPA**

**CORE**

**Coordinated Response Exercise For First Responders**



**Emergency Responder Manual**

- Understanding Pipelines
- Operator Profiles
- Product Information

TEXAS

**CORE**

**Coordinated Response Exercise For First Responders**



**PROGRAM GUIDE**

- Overview

MISSOURI

**CORE**

**Coordinated Response Exercise For First Responders**



**Emergency Response Manual**

- Overview
- Operators by County
- Operator Profiles
- Emergency Response
- NEMA Pipeline Emergency Operations
- Signs of a Pipeline Release
- High Consequence Area Identification
- Pipeline Industry ER Initiatives
- Pipeline Damage Reporting Law

**2019**

**PAM**  
Pipeline Association of Missouri

**NEBRASKA PIPELINE ASSOCIATION NPA**

**CORE**

**Coordinated Response Exercise For First Responders**



**Emergency Responder Manual**

- Overview
- Operator Profiles
- Emergency Response
- NEMA Pipeline Emergency Operations
- Signs of a Pipeline Release
- High Consequence Area Identification
- Pipeline Industry ER Initiatives
- Pipeline Damage Reporting Law

**2018**

OKLAHOMA

**CORE**

**Coordinated Response Exercise For First Responders**



**Emergency Response Manual**

- Overview
- Operator Profiles
- Emergency Response
- NEMA Pipeline Emergency Operations
- Signs of a Pipeline Release
- High Consequence Area Identification
- Pipeline Industry ER Initiatives
- Pipeline Damage Reporting Law

**2019**

# Pipeline Operator Information\*

- Company name
- Pipeline systems and products
- Location of pipelines
- Pipeline size/operating pressure(s)
- Emergency Contact Telephone Numbers

..... ABC Pipeline



**ABC Pipeline**

0000 Airport Road  
Anytown, US 00000  
Phone: (000) 000-0000  
Website: www.abcpipeline.com

---

**WHO IS ABC PIPELINE**

We operate about 12,500 miles of high pressure interstate natural gas transportation pipelines in the United States and another 6,000 miles in Canada, along with related storage, compression and metering facilities.

**PIPELINE LOCATION AND MARKERS**

If you observe any unusual or suspicious activity near our pipeline facilities or in the unlikely event that an excavation takes place call us at all the numbers listed.

More information on found at: [www.abcp.com](http://www.abcp.com)

**WHAT ARE THE SIX GAS PIPELINE LEAKS?**

- Blowing or hiss
- Dust blowing in ground
- Continuous bubbling
- Gaseous or hazy
- Dead or discolored green areas
- Flames, if a leak

**WHAT SHOULD I DO IF I SEE A GAS PIPELINE LEAK?**

Your personal safety is the most important. If you see a gas pipeline leak:

- Evacuate the area
- Abandon any excavation near the area
- Avoid any open flames
- Avoid introducing ignition to the area
- Call 911 or contact the pipeline operator
- Do not attempt to stop the leak
- Do not attempt to repair the pipeline
- Do not attempt to use electrical equipment
- Do not attempt to use mobile phones
- Do not attempt to use any equipment
- Do not attempt to use any equipment

**PIPELINE SAFETY**

System failures occur on the nation's network of gas pipeline facilities, and many of these are caused by damage from others digging near the pipeline. We watch for unauthorized digging, but we request your help to notify us.

**ALWAYS CALL 811 BEFORE YOU DIG!**

PIPELINE LOCATION AND MARKERS

Pipeline markers are used to indicate the location of the pipeline.

**EMERGENCY CONTACT:**  
1-800-000-0000

**PRODUCT:** 0000

**STATE COUNTIES OF OPERATION:**



University of Missouri Fire  
Rescue Training Institute



Missouri Emergency  
Response Commission

**Emergency Contact List**

COMPANY	EMERGENCY NUMBER
BP Pipelines (North America)	1-800-548-5482
Buckeye Partners, L.P. (Northern Missouri)	1-866-314-8380
Buckeye Partners, L.P. (St. Louis Area)	1-800-331-4115
City of Fulton (Between 7:30 AM and 4:00 PM CST)	1-573-592-3170
City of Fulton (After hours or on weekends)	1-573-592-3180
Empire District Gas Company	1-800-486-9220
Enable Gas Transmission, LLC	1-800-474-1564
Enable Mississippi River Transmission, LLC	1-800-325-4065
Enbridge / Platte Pipe Line Company	1-800-658-2253
Enbridge (Texas Eastern Transmission LP)	1-800-231-7794
Enterprise Products Operating LLC	1-888-863-8308
Explorer Pipeline	1-888-676-9036
Flint Hills Resources	1-800-688-7384
Liberty Utilities	1-855-644-1334
Magellan Midstream Partners, L.P.	1-800-720-2417
Marathon Pipe Line LLC	1-800-537-6644
MidGas Pipeline LLC	1-800-292-4916
NuStar Pipeline Operating Partnership, L.P.	1-800-759-8033
Omega Pipeline Company, LLC	1-573-329-3362
ONEOK North System	1-888-844-3559
Panhandle Eastern Pipe Line	1-800-225-3913
Rainier Express Partners	1-800-653-5331
Razorback Pipeline LLC	1-800-732-8140
Simolar Transportation Company	1-800-321-3994
Spre (Kansas City and Western Missouri)	1-800-562-1234
Spre (St. Louis and Eastern Missouri)	1-800-887-4173
Summit Natural Gas	1-800-927-6787
Talgrass Energy (Rockies Express Pipeline)	1-877-436-2253
Talgrass Energy (Talgrass Interstate Gas Transmission)	1-888-763-8690
TransCanada / AUST Pipeline	1-800-447-8066
TransCanada Keystone Pipeline	1-800-447-8066

Note: The above numbers are for emergency situations. Additional pipeline operators may exist in your area. Visit the National Pipeline Mapping System at [www.npms.phmsa.dot.gov](http://www.npms.phmsa.dot.gov) for companies not listed above.

ONE-CALL SYSTEM	PHONE NUMBER
Missouri One Call System	1-800-344-7483
National One-Call Referral Number	1-888-258-0808
National One-Call Dialing Number	811



Pipeline Association of Missouri

\*Information in the materials may not represent all pipelines in an area. Some pipelines may not meet the criteria to be regulated; some may simply choose not to utilize our services.

# Program Resources



[www.pdigm.com](http://www.pdigm.com)



[ok.pipeline-awareness.com](http://ok.pipeline-awareness.com)

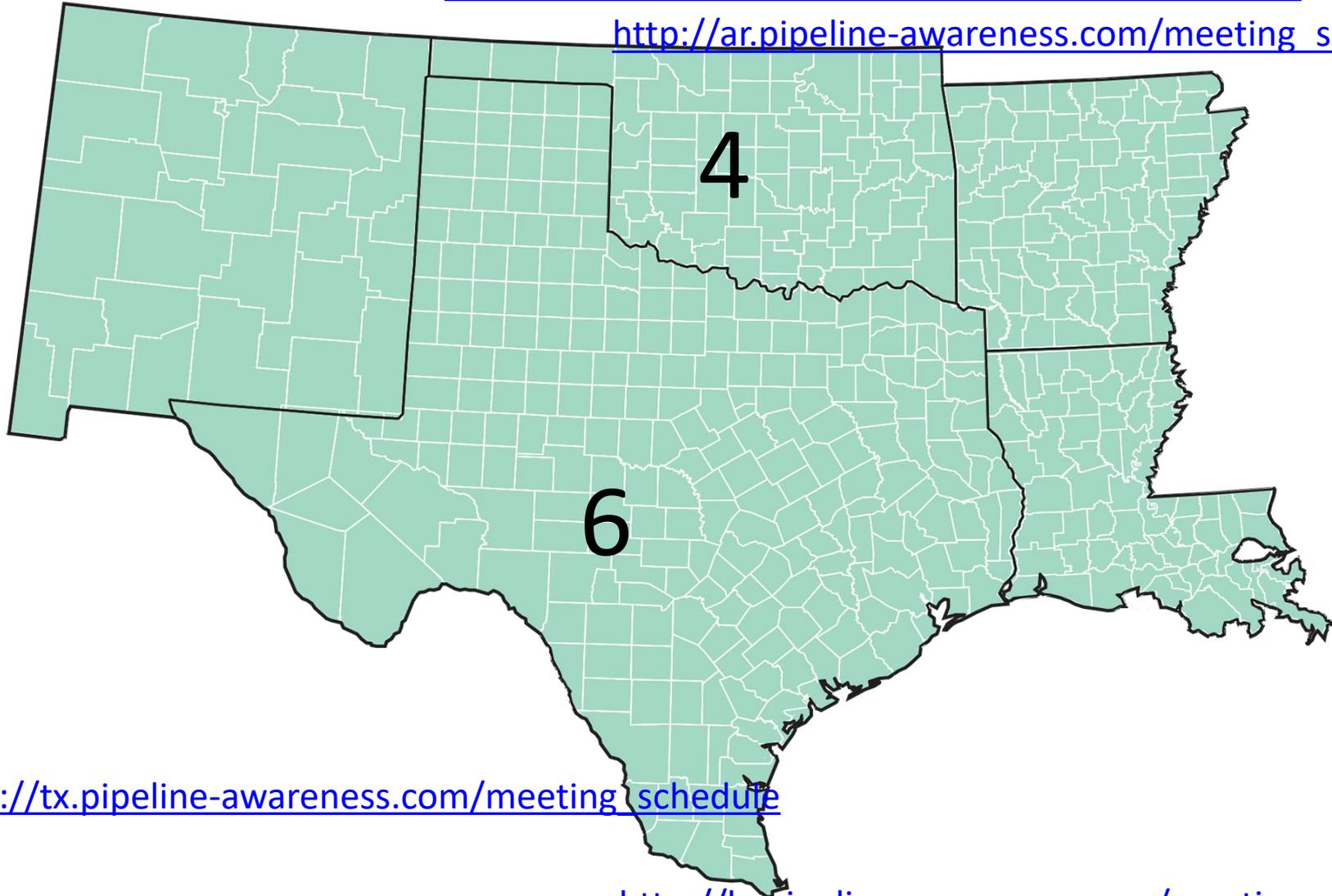


# HSEEP Exercises in Regions VI

[http://dpgnm.com/index.php?p=newmexico/meeting\\_schedule](http://dpgnm.com/index.php?p=newmexico/meeting_schedule)

[http://ok.pipeline-awareness.com/meeting\\_schedule](http://ok.pipeline-awareness.com/meeting_schedule)

[http://ar.pipeline-awareness.com/meeting\\_schedule](http://ar.pipeline-awareness.com/meeting_schedule)



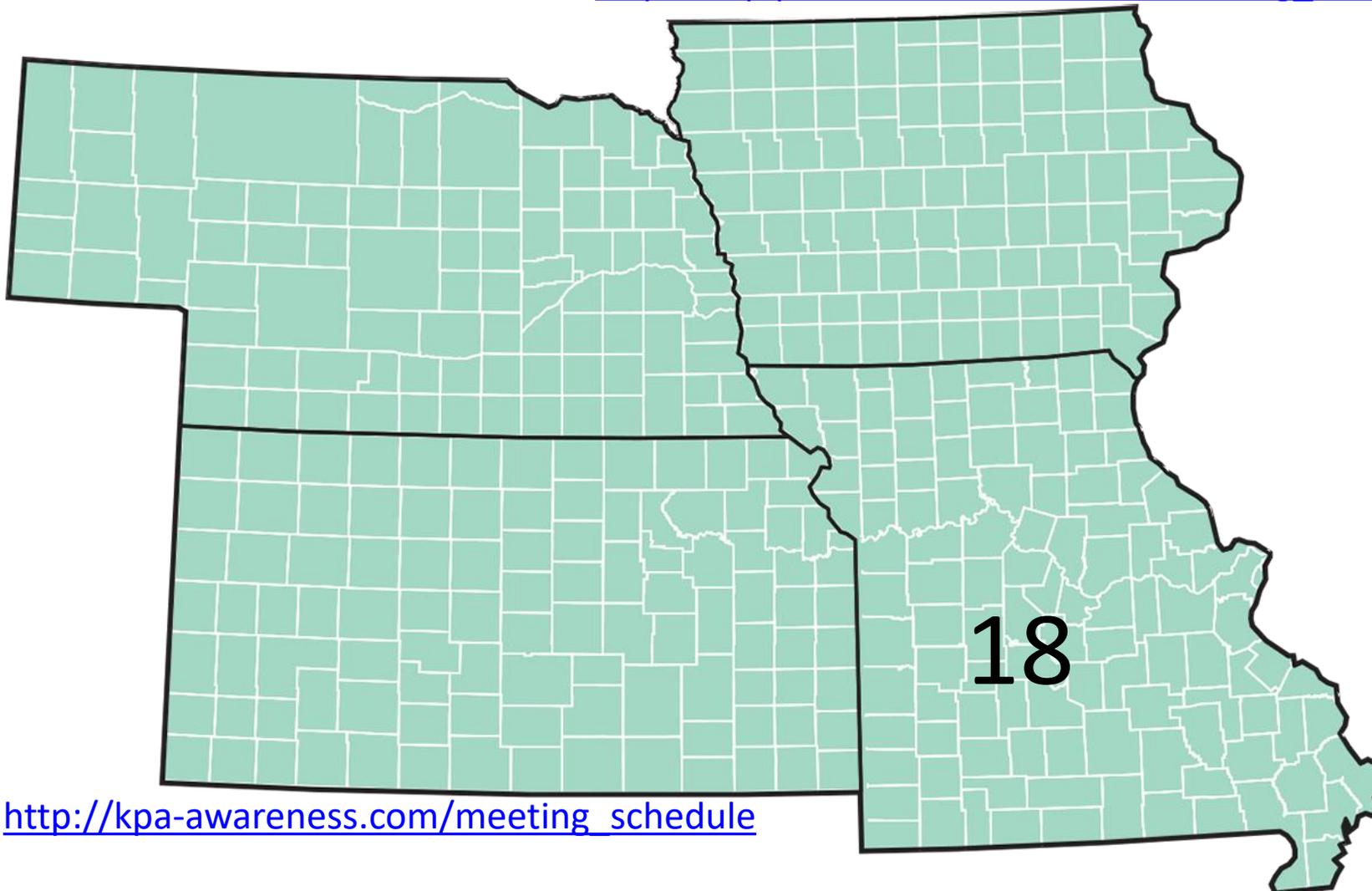
[http://tx.pipeline-awareness.com/meeting\\_schedule](http://tx.pipeline-awareness.com/meeting_schedule)

[http://la.pipeline-awareness.com/meeting\\_schedule](http://la.pipeline-awareness.com/meeting_schedule)

# HSEEP Exercises Region VII

[http://nebraskapipeline.com/meeting\\_schedule](http://nebraskapipeline.com/meeting_schedule)

[http://ia.pipeline-awareness.com/meeting\\_schedule](http://ia.pipeline-awareness.com/meeting_schedule)



[http://kpa-awareness.com/meeting\\_schedule](http://kpa-awareness.com/meeting_schedule)

[http://showmepipeline.com/meeting\\_schedule](http://showmepipeline.com/meeting_schedule)

# HSEEP Situation Manuals

## Pipeline Emergency Response Workshop (TTX)

Situation Manual  
January 23, 2019  
Tulsa, Oklahoma

This Situation Manual (SitMan) provides exercise participants with all their roles in the exercise. Some exercise material is intended for the planners, facilitators, and evaluators, but players may view other material to view their performance. All exercise participants may view the SitMan.



## Pipeline Emergency Response Workshop (TTX)

Situation Manual  
March 7, 2019  
Austin, Texas

This Situation Manual provides exercise participants with all the necessary tools for their roles in the exercise. Some exercise material is intended for the planners, facilitators, and evaluators, but players may view other materials that are necessary to view their performance. All exercise participants may view the SitMan.



## Pipeline Emergency Response Workshop (TTX)

Situation Manual  
March 5, 2019  
St. Charles, Missouri

This Situation Manual (SitMan) provides exercise participants with all the necessary tools for their roles in the exercise. Some exercise material is intended for the exclusive use of exercise planners, facilitators, and evaluators, but players may view other materials that are necessary to their performance. All exercise participants may view the SitMan.

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# Other Paradigm Activities

In addition to the “Pipeline 101” programs that we do across the nation, we would also be happy to make arrangements to do presentations or provide information in support of other state and federal level conference initiatives

How to get in contact with me:

Paradigm Liaison Services

Randall C. Duncan MPA, CEM<sup>®</sup>

Deputy Director of Training

222 S. Ridge Road

Wichita, Kansas 67209-2113

Direct-in-Dial: 316-928-4720

Toll Free: 1-877-477-1162 Ext. 120

Cell Phone: 316-371-4724

Fax: 316-554-9228

[randalld@pdigm.com](mailto:randalld@pdigm.com)

R6/R7 RRT Joint Meeting  
March 28, 2019  
Tabletop Exercise

# SCENARIO

- National Response Center receives report at 8 p.m. on 3/28/19 of BNSF derailment of unit train heading south through Arkansas City, KS at bridge crossing Arkansas River just east of US HWY 77
- Current estimate is 20 tankers derailed, unsure how many are leaking, and currently two on fire, quantity in water unknown
- Local fire/hazmat are on-scene and considering foaming, BNSF and their contractors en-route with ETA of midnight



Parkerfield Parkerfield

Arkansas City Arkansas City

166

RR Bridge

27

77

US Hwy 77

Silverdale Silv



# INITIAL SIZE UP/QUESTIONS

- Ball park estimate – based on current information - how many gallons of oil could be involved?
- Is foaming a good decision?
- Who is in charge?
- Whose jurisdiction? Who owns the rivers in Kansas – adjacent property owner or the State? Oklahoma?
- Where do you set up?



E Pierce Ave

S 4th St

S 4th St

US Hwy 77

Lovers Ln

306th Dr

RR Bridge

1st downstream access

Googl

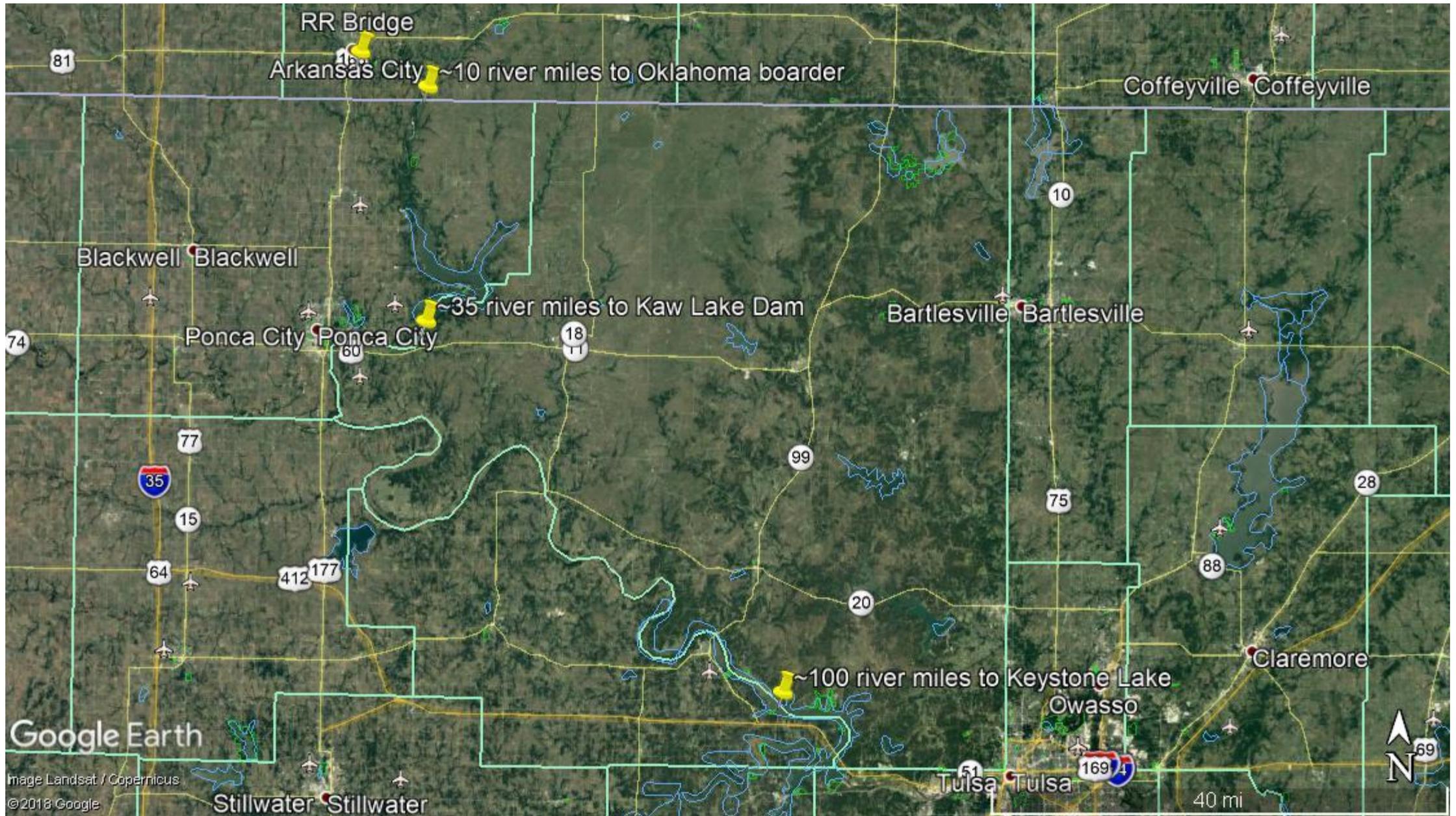
©2018 Google



1000 ft

# GENERAL ASSUMPTIONS

- Current weather and river conditions (possible “April showers” for the next several weeks, river slightly higher than normal, no ice)
- Ballpark estimate – leading edge will reach 100 miles in 72 hours
- North wind 5-15 mph; VOCs/benzene concentrations are elevated
- No reported deaths or injuries
- Fire is out by 0800



# Incident Command vs. Unified Command

- Will evolve – break it up into time chunks for discussion

## **PLANS**

- What plans should be consulted and apply to this discharge? Any conflict between EPA R6-R7 plans, USCG plans, State plans?

# NOTIFICATIONS

- Who all in the room would have received this NRC report?
- Who all should be notified/contacted as soon as possible?
- Should anyone else be notified first thing in the morning?
- Who all would deploy personnel or assets that night?
- Who would deploy personnel or assets first thing in the morning?

# Time Jump to 0800 3/29/19

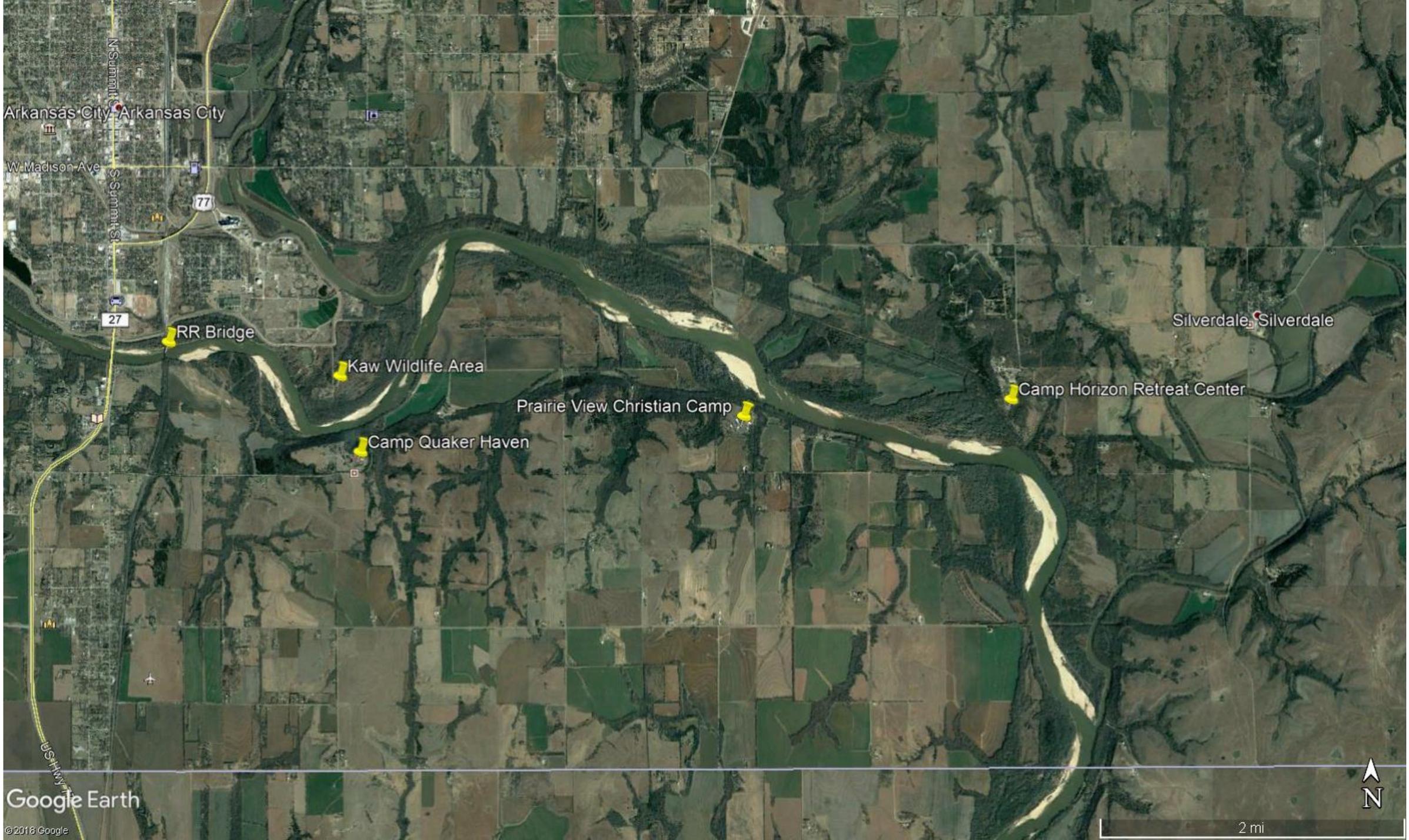
- Fire out; Oil confirmed in OK; 10 tankers confirmed leaking
- The following have checked in at temporary command post:

Local FD	Local PD	Local EMA
Local officials/public works	BNSF	BNSF contractors
KDHE	KS Fire Marshal ?	KDEM ?
KS Fish and Wildlife ?	EPA R7	EPA R7 contractors
TSB? / FRA ?		
	Local and regional media	

- Would there/should there be anyone else by 0800?

# Reports

- Residents in southern portion of Arkansas City complaining of odors
- People at 3 camp sites complaining of odors – is their trip over?
- Arkansas City Kayaks has several reservations – cancel?



Arkansas City, Arkansas City

W. Madison Ave

N Summit St  
S Summit St

77

27

RR Bridge

Kaw Wildlife Area

Prairie View Christian Camp

Camp Quaker Haven

Camp Horizon Retreat Center

Silverdale, Silverdale

Google Earth

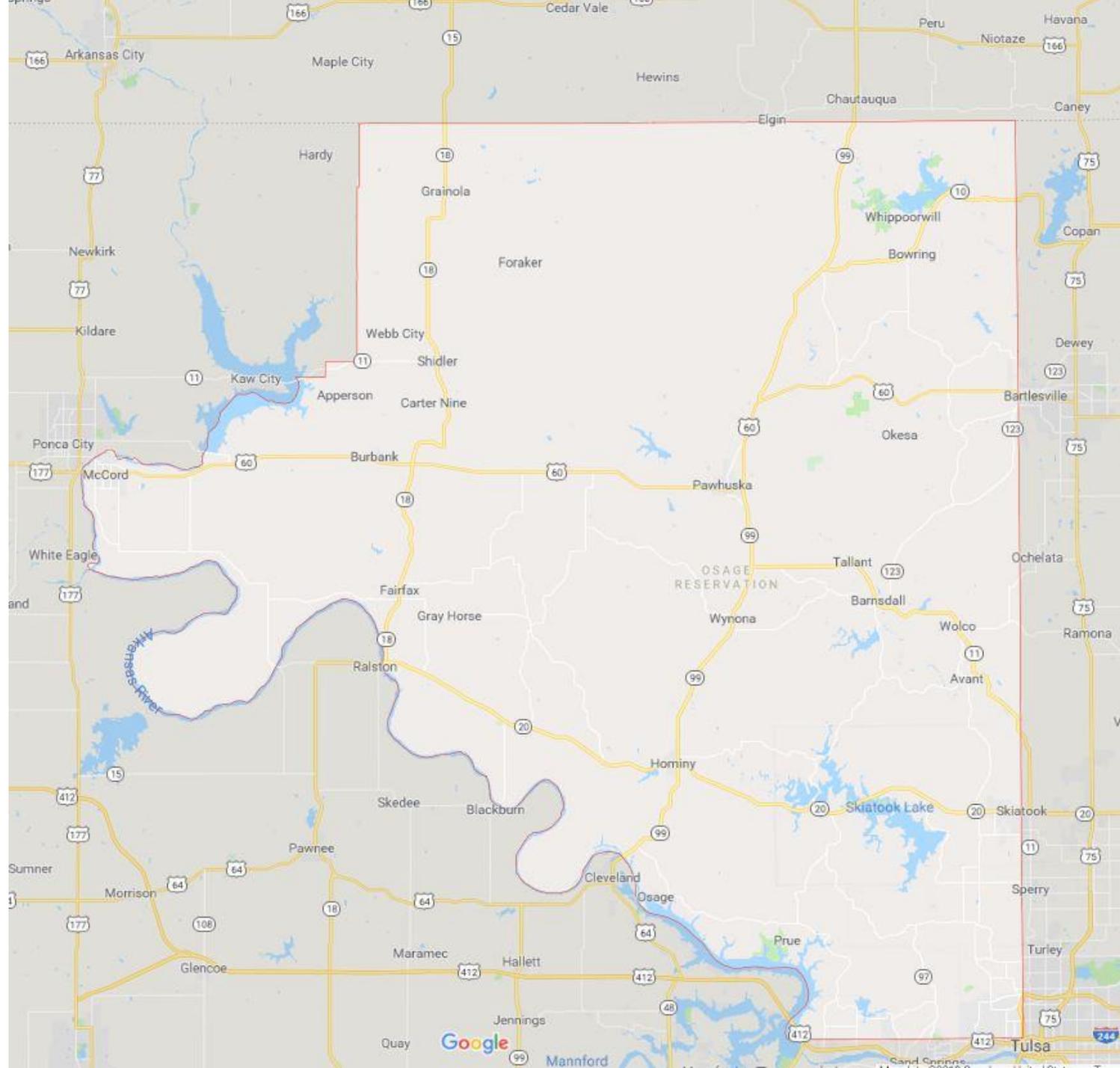
©2018 Google



2 mi

# Jurisdictions/Stakeholders

- Arkansas City, KS; Cowley County KS; State of Kansas; EPA Region 7
- Kaw City, OK; Ponca City, OK; Kay County OK; Osage County OK; State of Oklahoma; EPA Region 6
- Osage Reservation; Osage Nation; Otoe-Missouria Tribe; Quapaw Tribe; BIA
- State/Federal Trustees
- Cowley College; Arkansas City Area Chamber of Commerce; lease farmers/private land owners
- Kaw Lake Association; Ponca City Tourism; lease farmers/private land owners



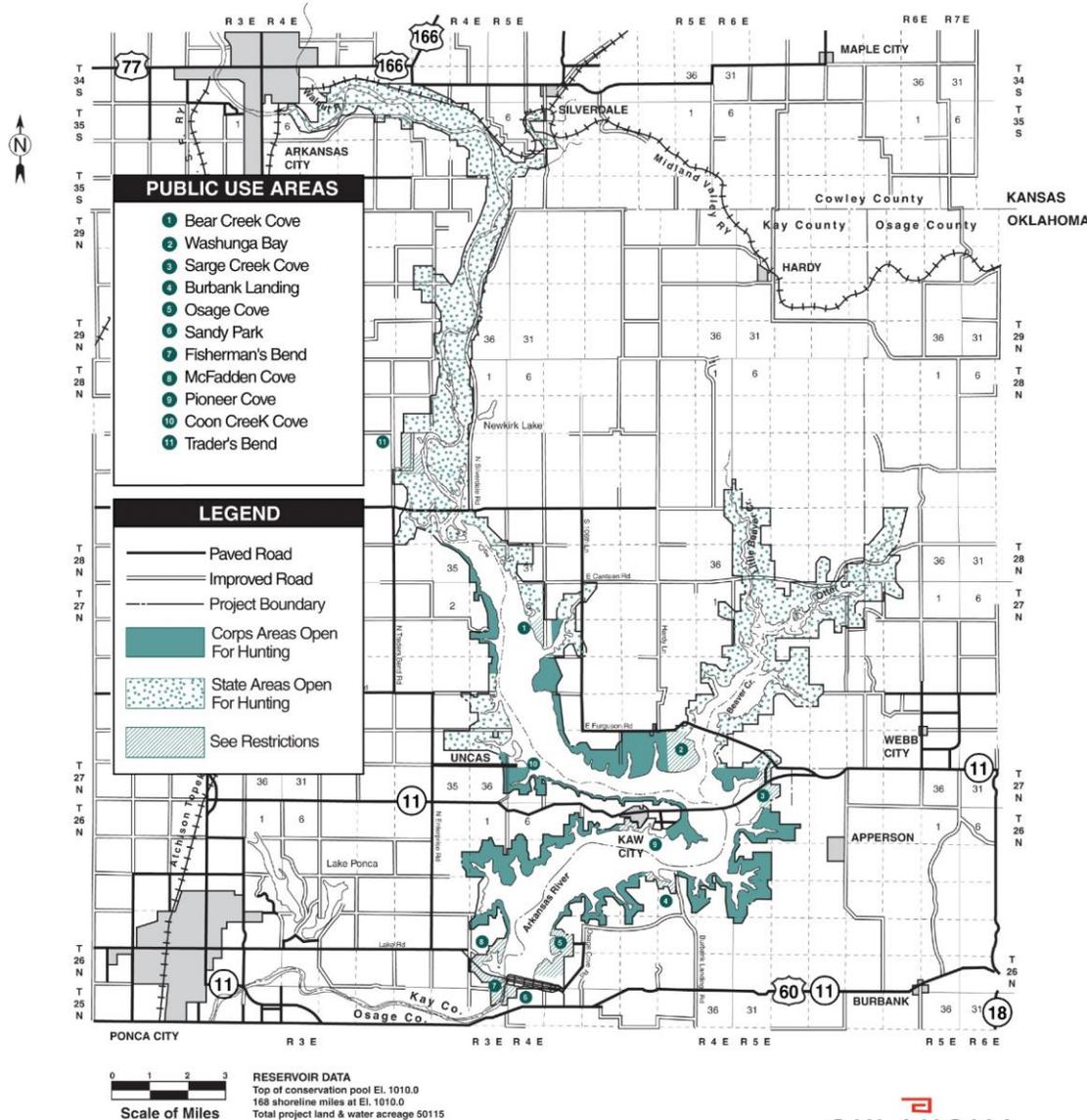
# Kaw Lake Public Hunting Area

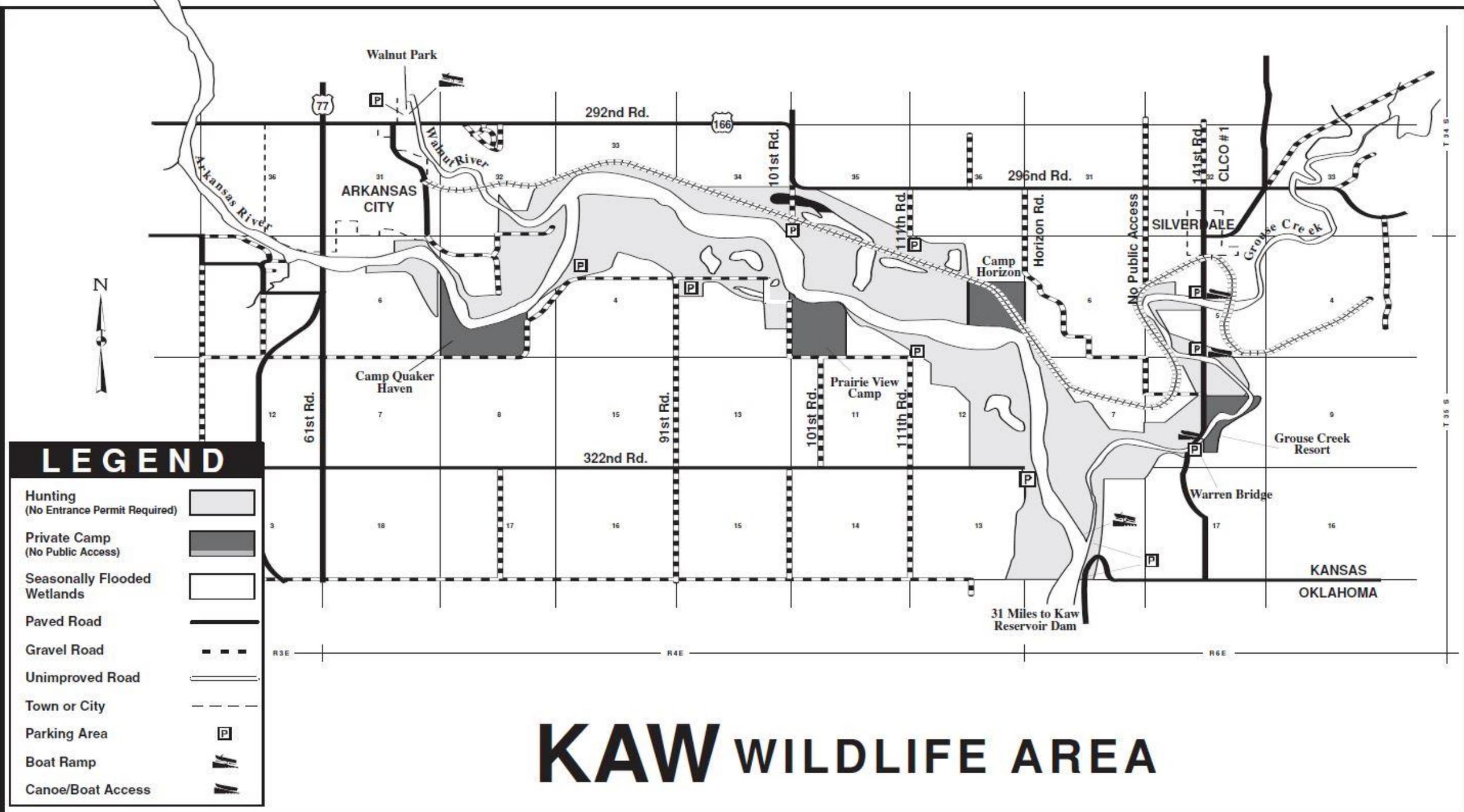


US Army Corps  
of Engineers  
Tulsa District

KS Turkey Season  
Youth – April 1  
Regular – April 17

OK Turkey Season  
Youth – March 30  
Regular – April 6





# LEGEND

- Hunting  
(No Entrance Permit Required)
- Private Camp  
(No Public Access)
- Seasonally Flooded  
Wetlands
- Paved Road
- Gravel Road
- Unimproved Road
- Town or City
- Parking Area P
- Boat Ramp M
- Canoe/Boat Access M

# KAW WILDLIFE AREA



4.5 miles to  
NewDA

Kaw Wildlife Management Area



Area: 14,354 Acres  
 (403) 835-2594  
[wildlife.kan.gov/wildlife-management/areas/kaw](http://wildlife.kan.gov/wildlife-management/areas/kaw)

# From USFWS IPaC website

Red Knot



Least Tern



Piping Plover



Whooping Crane



1 Find location

2 Define area

3 Confirm

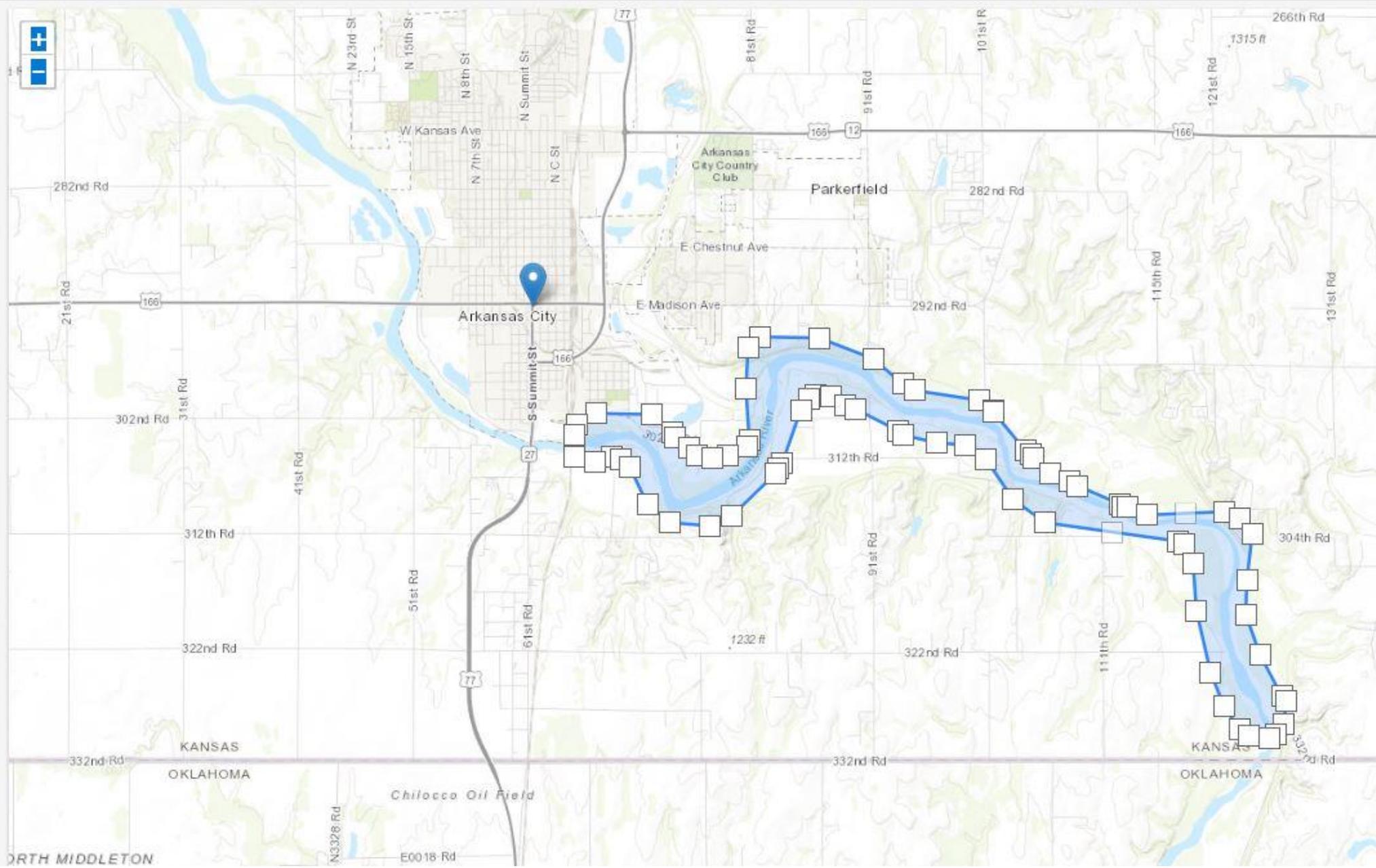
**Verify** the area where project activities will occur

**Modify** the shape by clicking and dragging the vertices or clicking on a solid vertex to remove it

AREA: 3.03 mi<sup>2</sup>

**CONTINUE**

START OVER



## Resources

**ENDANGERED SPECIES** 2

**MIGRATORY BIRDS** 6

**FACILITIES**

**WETLANDS**

PRINT RESOURCE LIST

### What's next?

Define a project at this location to evaluate potential impacts, get an official species list, and make species determinations.

DEFINE PROJECT

(NOAA Fisheries [2](#)).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

Additional information on endangered species data is provided [below](#).

The following species are potentially affected by activities in this location:

THUMBNAILS

LIST

## Mammals



Northern Long-eared Bat  
*Myotis septentrionalis*

## Birds



Least Tern  
*Sterna antillarum*

## Critical habitats

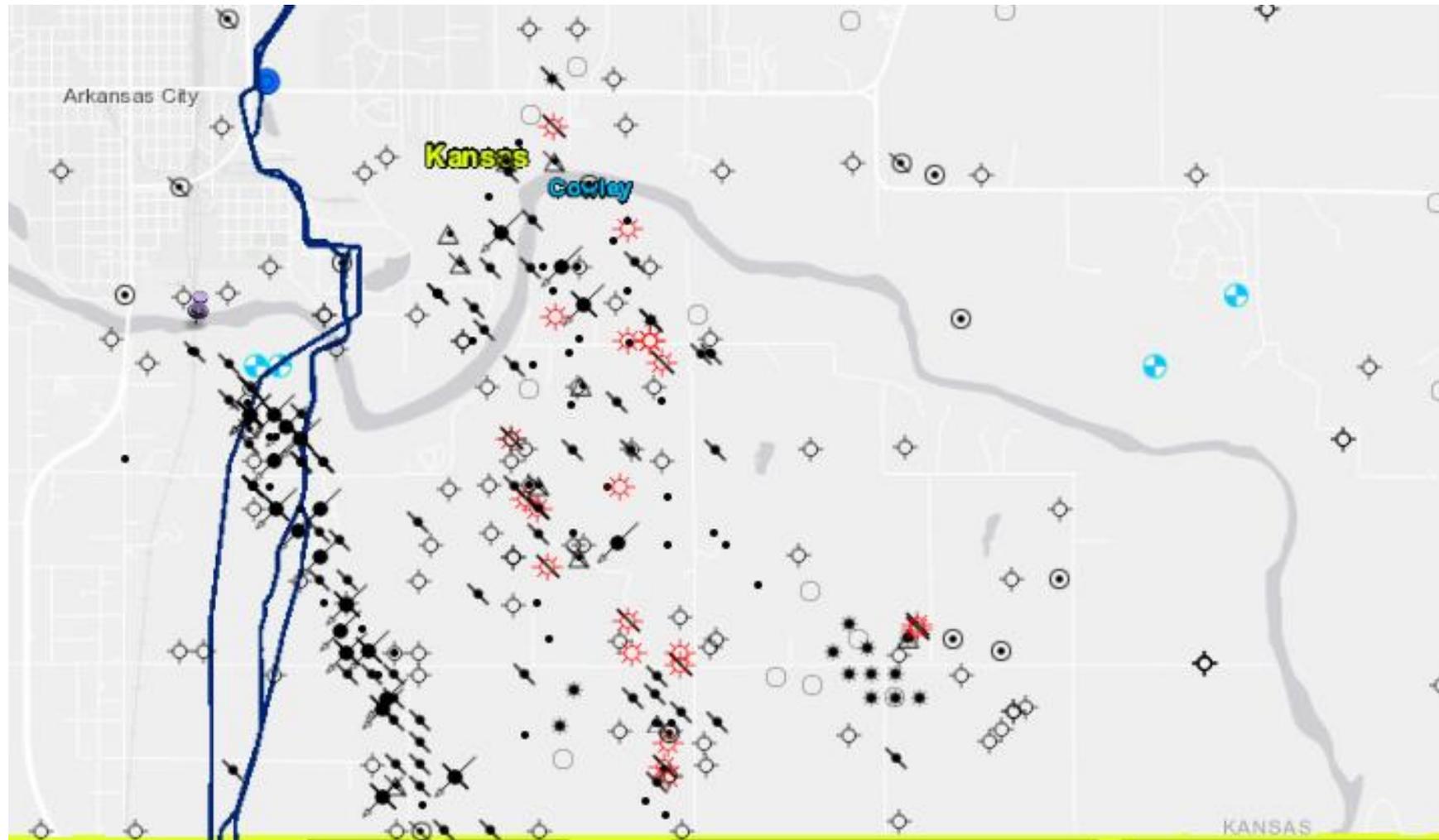
Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species

Incident Command  
vs.  
Unified Command  
vs.  
Area Command

Should be Unified Command or Area Command  
by now – who all is in it and who has the deciding  
vote??



# Other potential sources of oil in the area



# Time Jump to 0800 4/29/19

- Sample results at Kaw Dam non-detect but intakes still shut down
- SCAT segments set up from source to Kaw Lake Dam
- Recreation activity questions are increasing substantially
- Tulsa World newspaper article quoting local Tulsa officials saying that the response is not being protective of their water supply as no one has been there to test their drinking water source





# HOW CLEAN IS CLEAN

What does the NCP say about who decides?

What happens if Kansas and Oklahoma can't agree on the same cleanup standard?