



Galena Train Derailment RRT 5 Update 4/22/2015

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Outline

- Incident / Response
- Environmental
 - Air , Surface Water, Soil
- Recovery / Remediation
- Transition
- Issues of Interest
- Questions

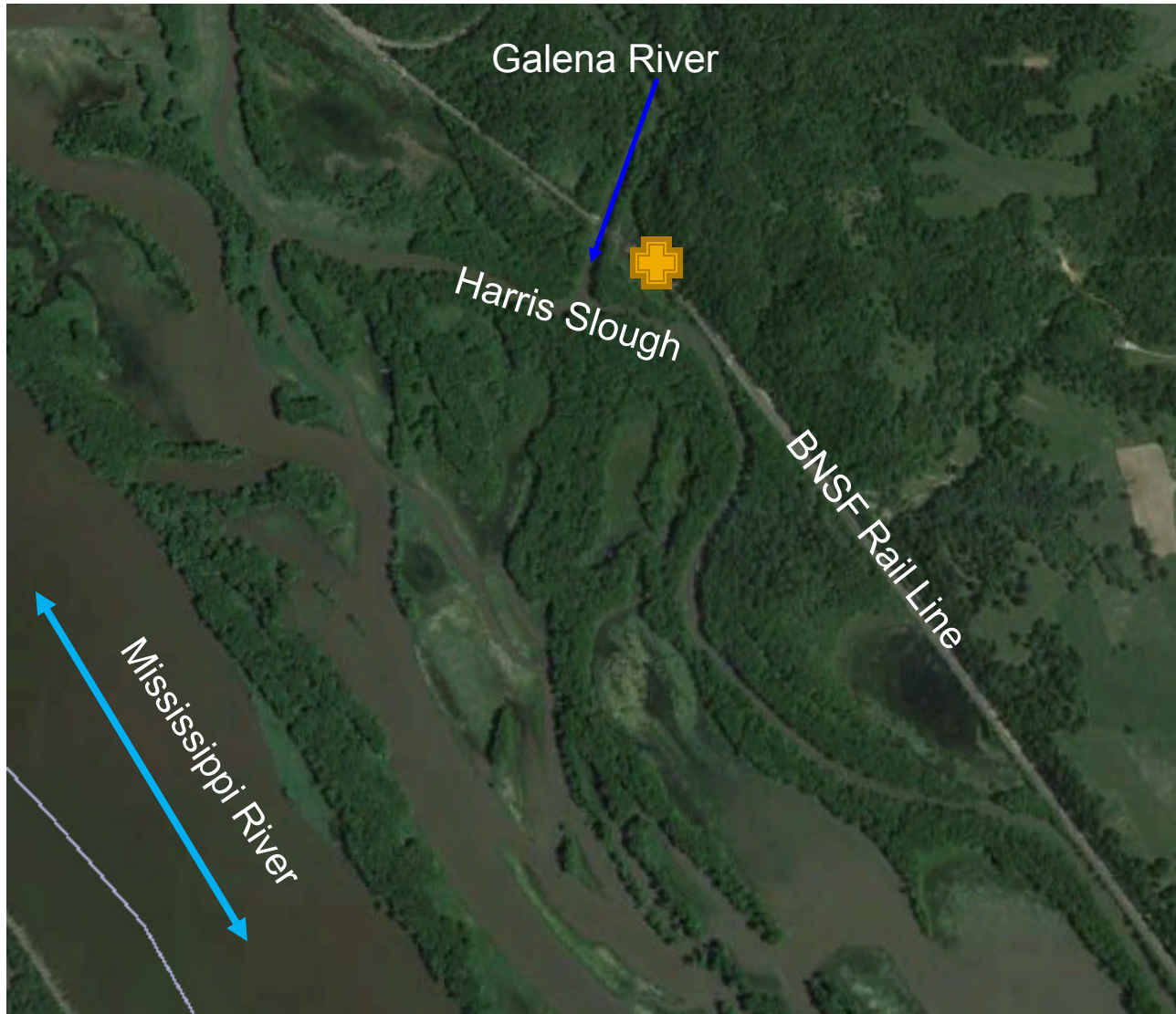


Incident Summary

- 1324hrs on March 5
 - Reported to NRC @ 1452hrs
- 21 of 105 BNSF train cars derailed @ MP 171.6
- Crude oil released to ground & burned (majority)
- Initial response focus =
 - Life safety
 - Incident stabilization
 - Protection of environment
- **415** personnel initially



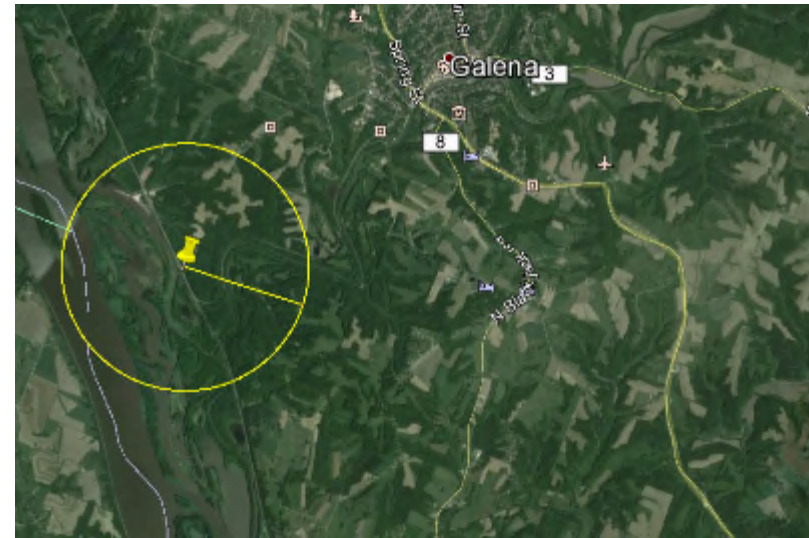
Location



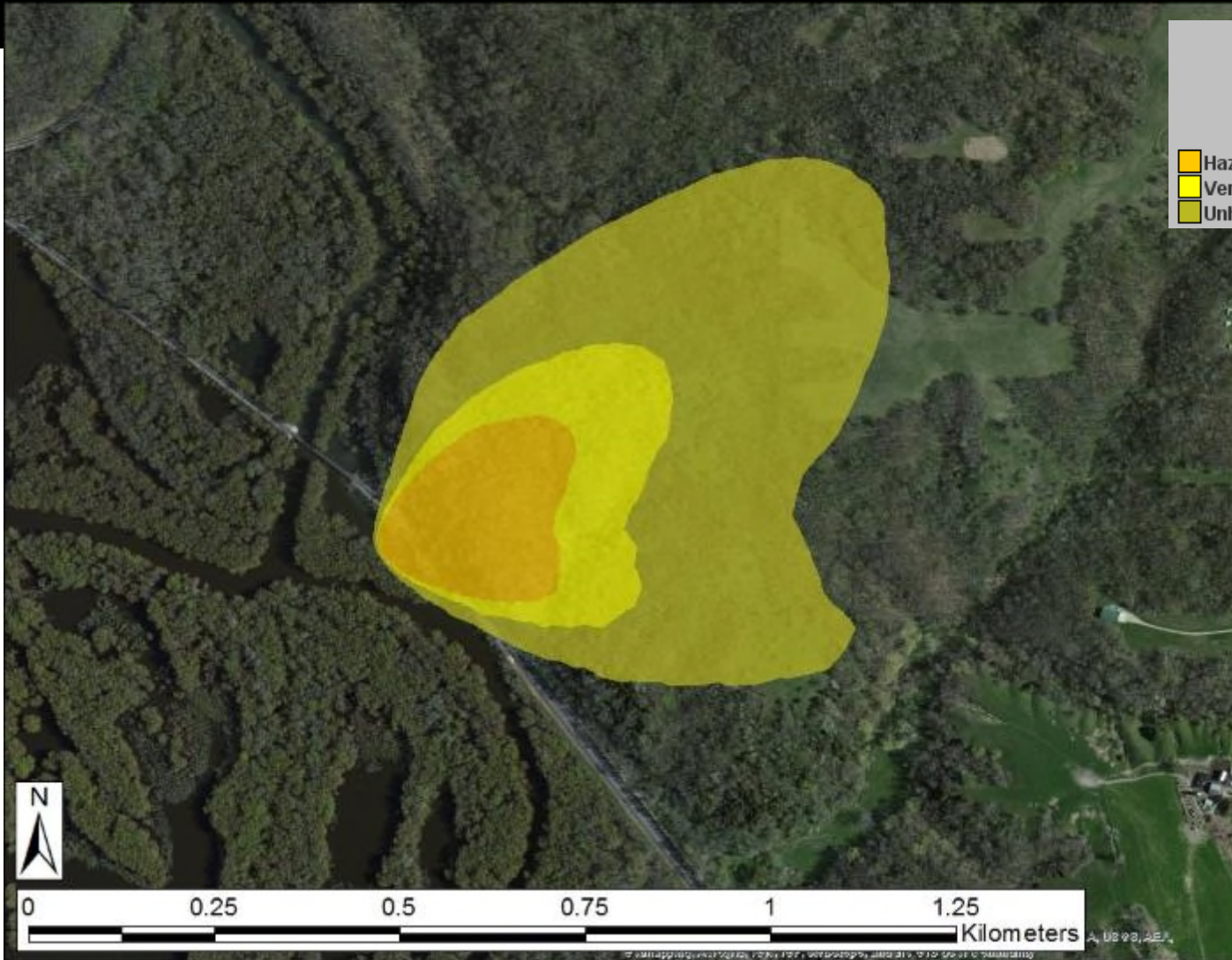
Initial Response Activities

- Establishment of safe zone / evacuations
 - 6 homes < 1 mi
 - 4 homes occupied
 - 2 individuals evacuated / 7 refused
- Concern of additional explosion(s) on March 6

IMAAC Model run



24 hours – IMAAC Run



Oilfire Gas Surface Dosage 07-Mar-15 22:00:00Z (24.000 hr)		
	mg-min/m3	In contour area (km ²)
■ Hazardous	360.72	4.92E-2
■ Very Unhealthy	216.72	0.108
■ Unhealthy	94.32	0.349

This quick response used a weather prediction model; and was not coordinated with other IMAAC participants. Coordination will follow, and product will be updated as needed.

FACTS

Galena, IL
 Location:
 42.374470° N / 90.4443060° W
 Event Time: 1725, 06MAR2015
 Type: Bakken Crude Oil
 Amount: 60,000 gallons
 Dissemination: Rail Accident
 Weather: 12 km NAM
 Model: HPAC 5.3
 Static Population Estimates:
 LandScan 2013

Response Management

- IEMA/Galena FD used NIMS from the onset
 - 2 separate 'IAPs' being developed (BNSF & IL IMT)
 - NOFI issued to BNSF by USEPA
 - USCG, IEPA & USEPA coordinated from Day 1
 - US EPA deployed 'IMT Lite' (4 OPs, PSC, SITL & PIO)
- USEPA / IEMA established UC on day 4
 - USEPA
 - IEPA
 - Galena FD / Jo Daviess County EMA
 - BNSF Railway
- 1st combined IAP developed for OP#4
 - USEPA facilitated integration

IC to UC Transition Issues

- Composition of UC
 - PHMSA, FRA, OSHA, IEMA, IL IMT left off
- Selection of 1 individual for KLPs challenging

BEFORE = AFTER

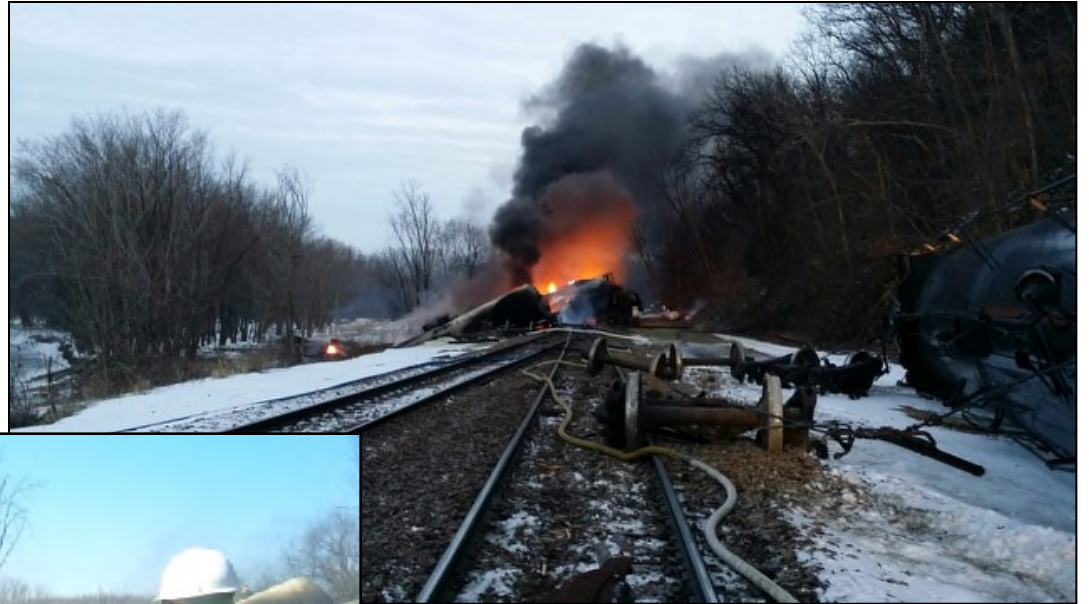
- 1 IC = 4(UC)
 - 5 PSCs = 1 (CTEH)
 - 6 SOs = 1 (BNSF, USCG)
 - 4 OPSs = 1 (BNSF)
 - 3 ENVLs = 1 (ARCADIS)
- Strategy was to populate KLPs with qualified personnel w/ longevity on site (EPA deputy)
 - CTEH's IAP software utilized successfully



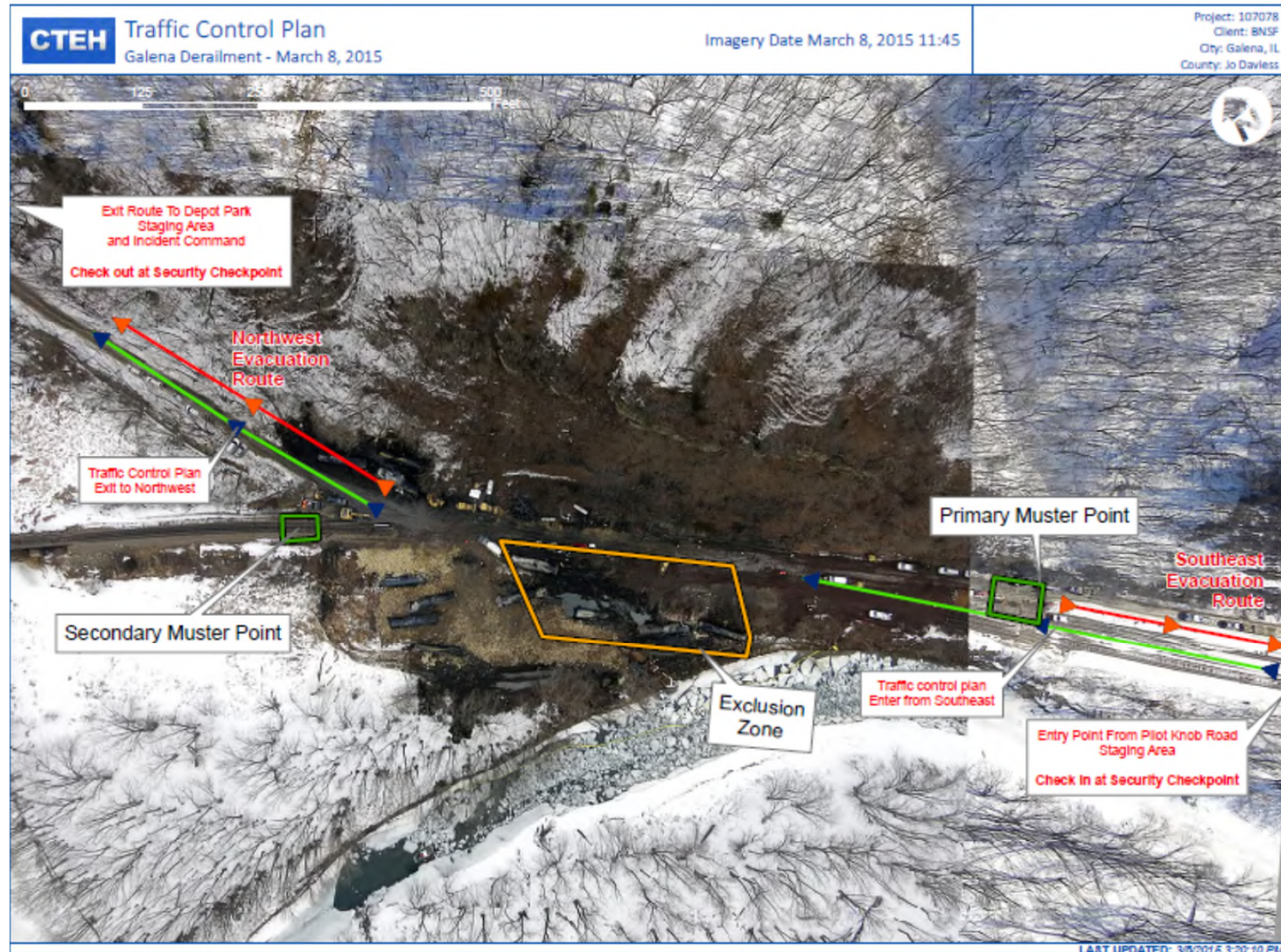
Response Activities

- Extinguished fire, investigate, assess scene
- Roadway access to difficult area
 - 404 permit issued by USACE
- Vac'd out crude from impacted cars & ground
- Removed damaged cars from right-of-way
- Excavated contaminated soils under tracks
- Replaced damaged track & resumed track ops
 - 100 trains backed up
- Emptied, cleaned, purged, cut up & scrapped cars (hauled out by truck)

Friday, March 6



Traffic Control – Tight Spot



12 impacted cars



Friday, March 13



Monitoring & Sampling

- Air
- Product
 - Fingerprint, SDS, analysis
- Surface Water
- Soil

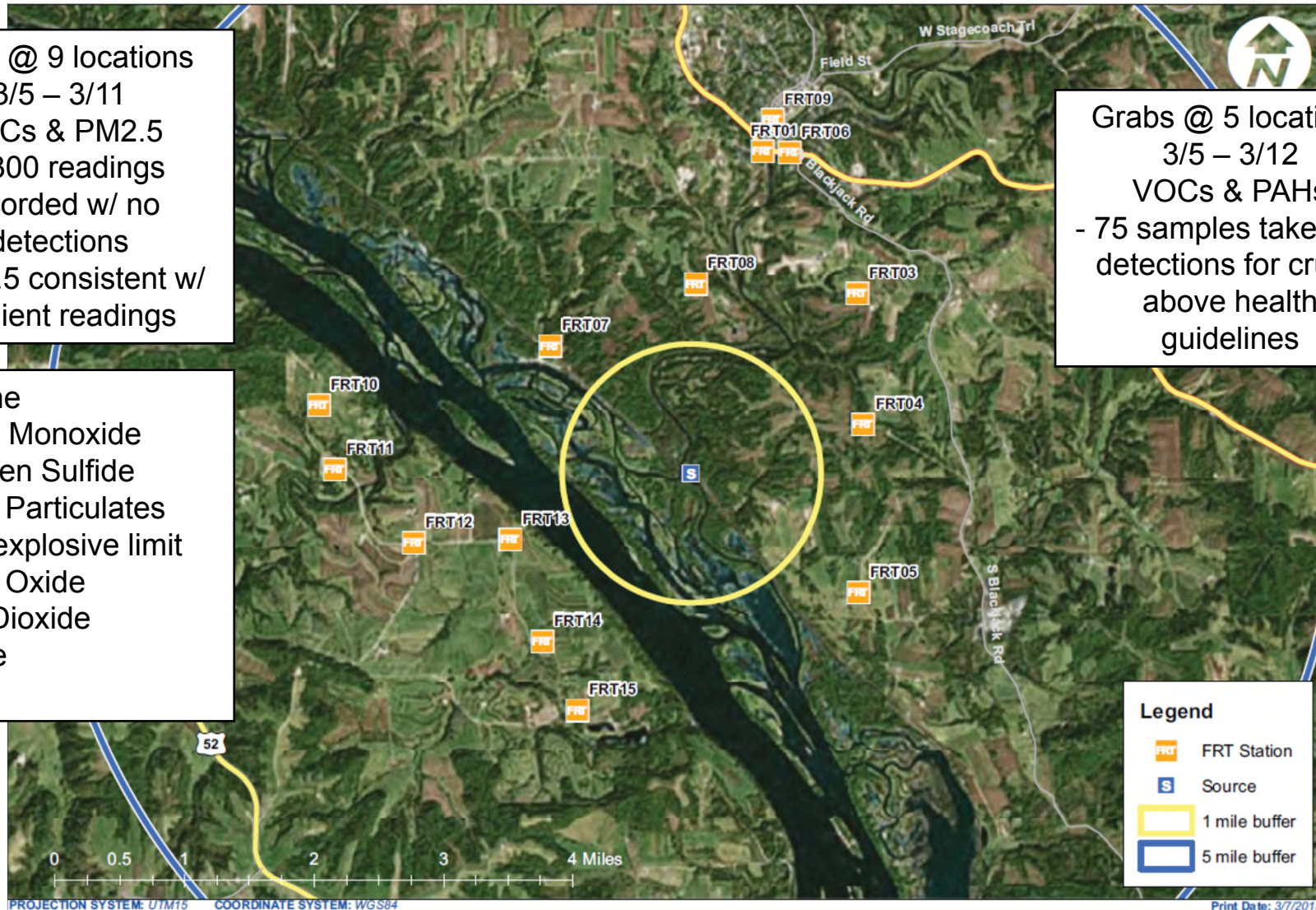


Air

Fixed @ 9 locations
3/5 – 3/11
VOCs & PM2.5
- 4300 readings
recorded w/ no
detections
- PM2.5 consistent w/
ambient readings

Benzene
Carbon Monoxide
Hydrogen Sulfide
PM 2.5 Particulates
Lower explosive limit
Nitrous Oxide
Sulfur Dioxide
Toluene
VOCs

Grabs @ 5 locations
3/5 – 3/12
VOCs & PAHs
- 75 samples taken, no
detections for crude
above health
guidelines



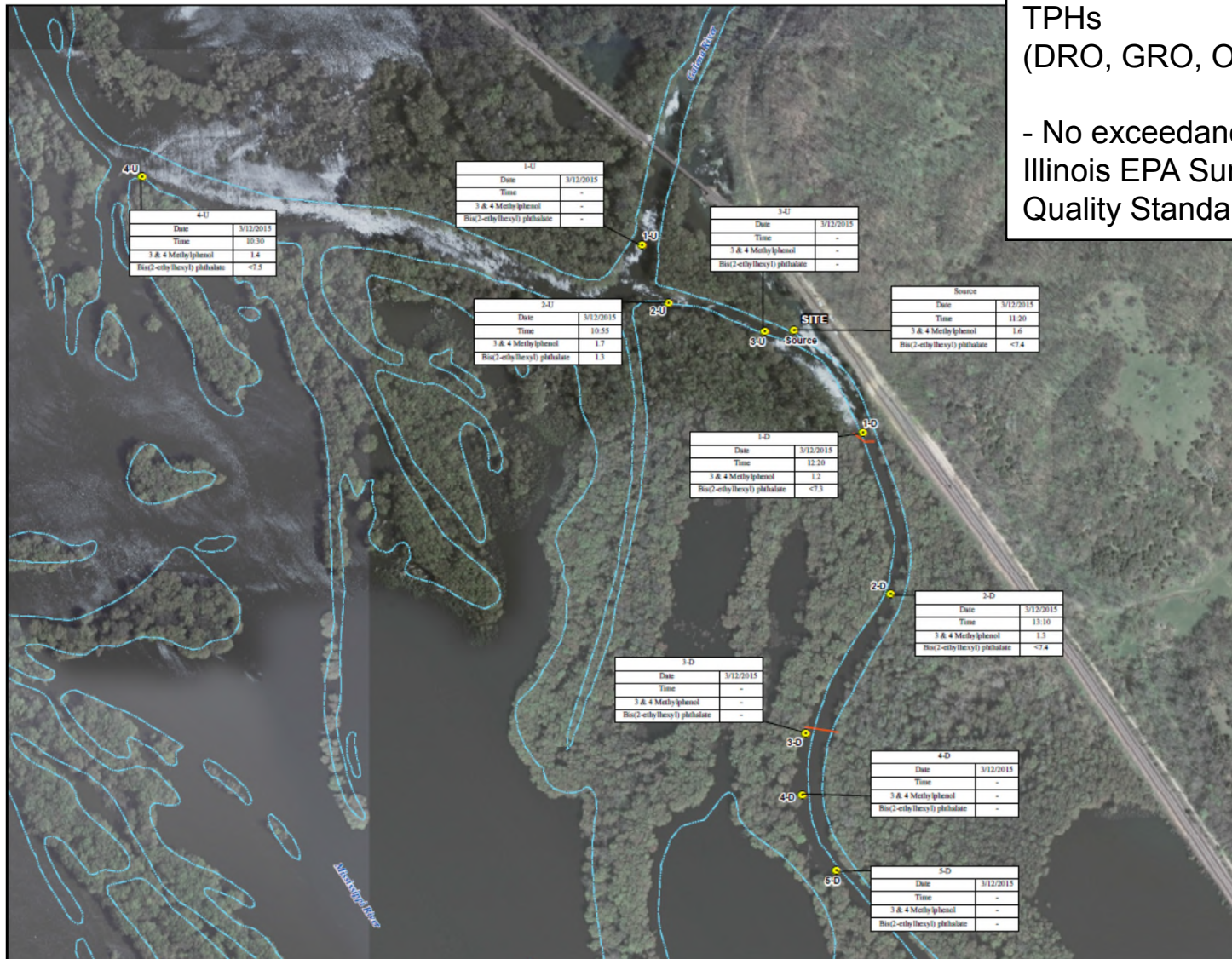
4 up, source, 5 down
3/7 to 3/11

2 up, source, 2 down
3/11 to present

Surface Water

Field parameters:
(depth, flow, DO, ORP,
temp, cond, pH)
VOCs
PNAs (SVOCs)
BTEX
TPHs
(DRO, GRO, ORO)

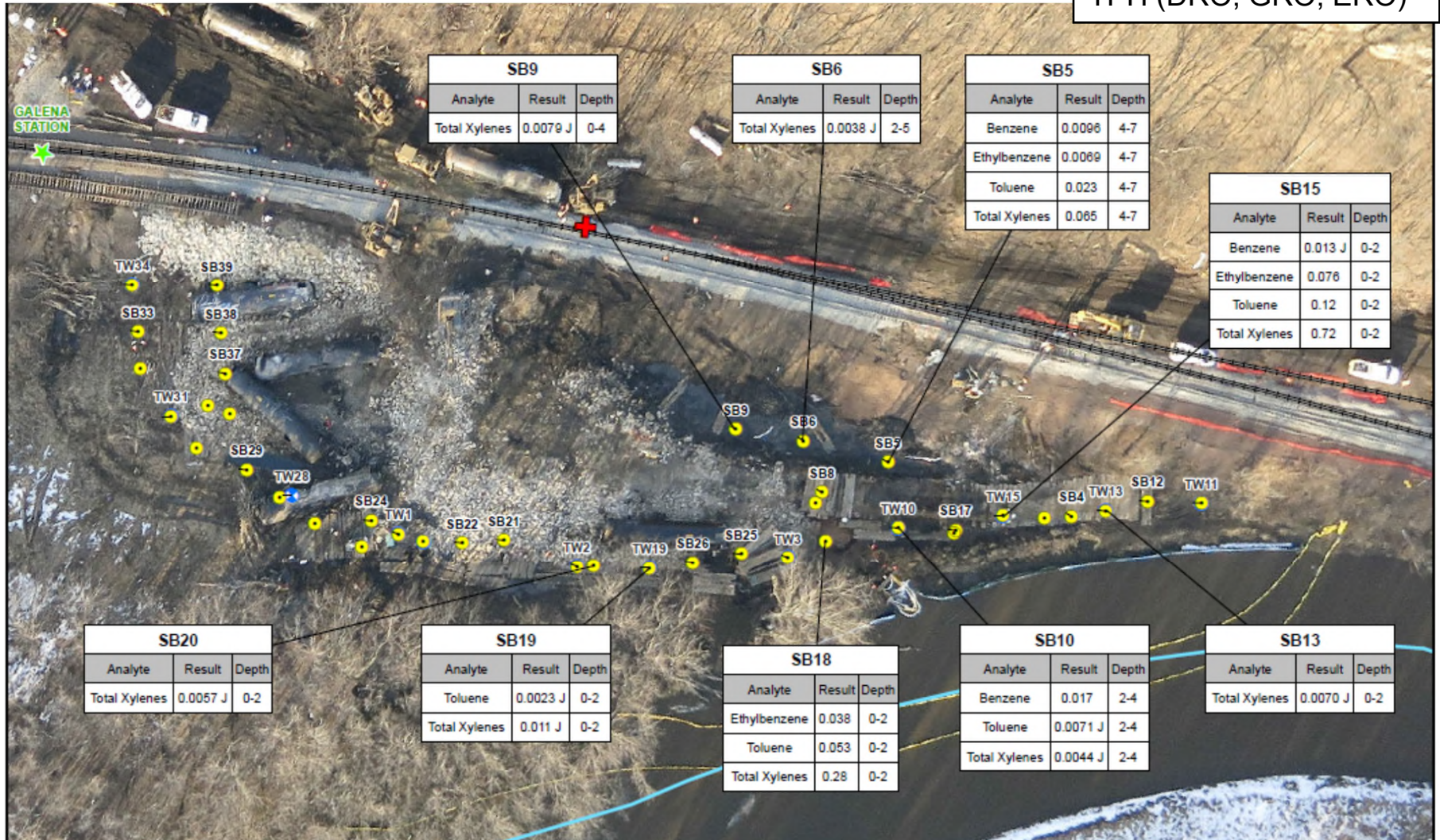
- No exceedances of
Illinois EPA Surface Water
Quality Standards



Soils

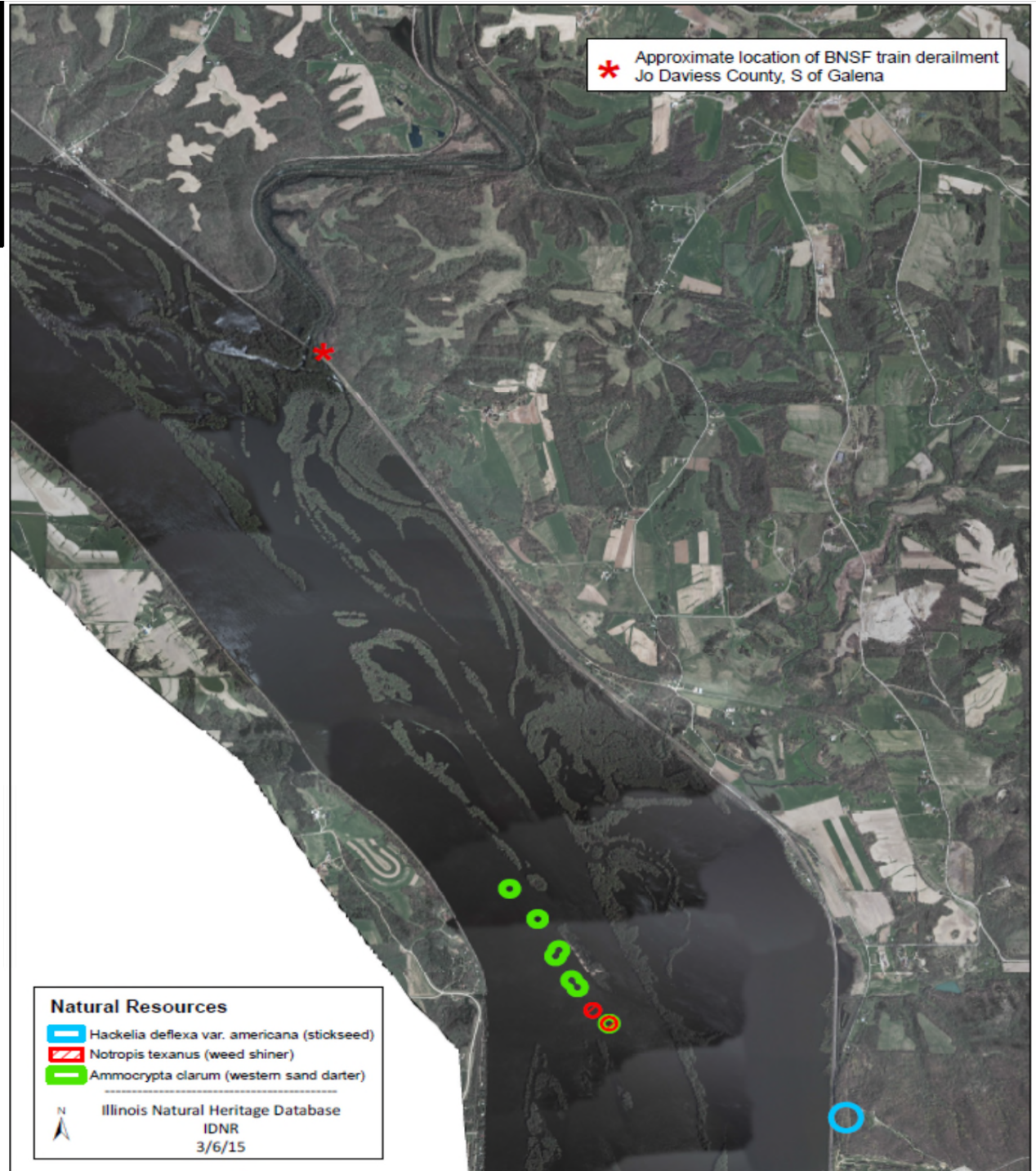
- 143 samples from 35 borings screened
39 samples to lab

PNAs n(0'-3', 4'-8')
BTEX
TPH (DRO, GRO, ERO)



ESA

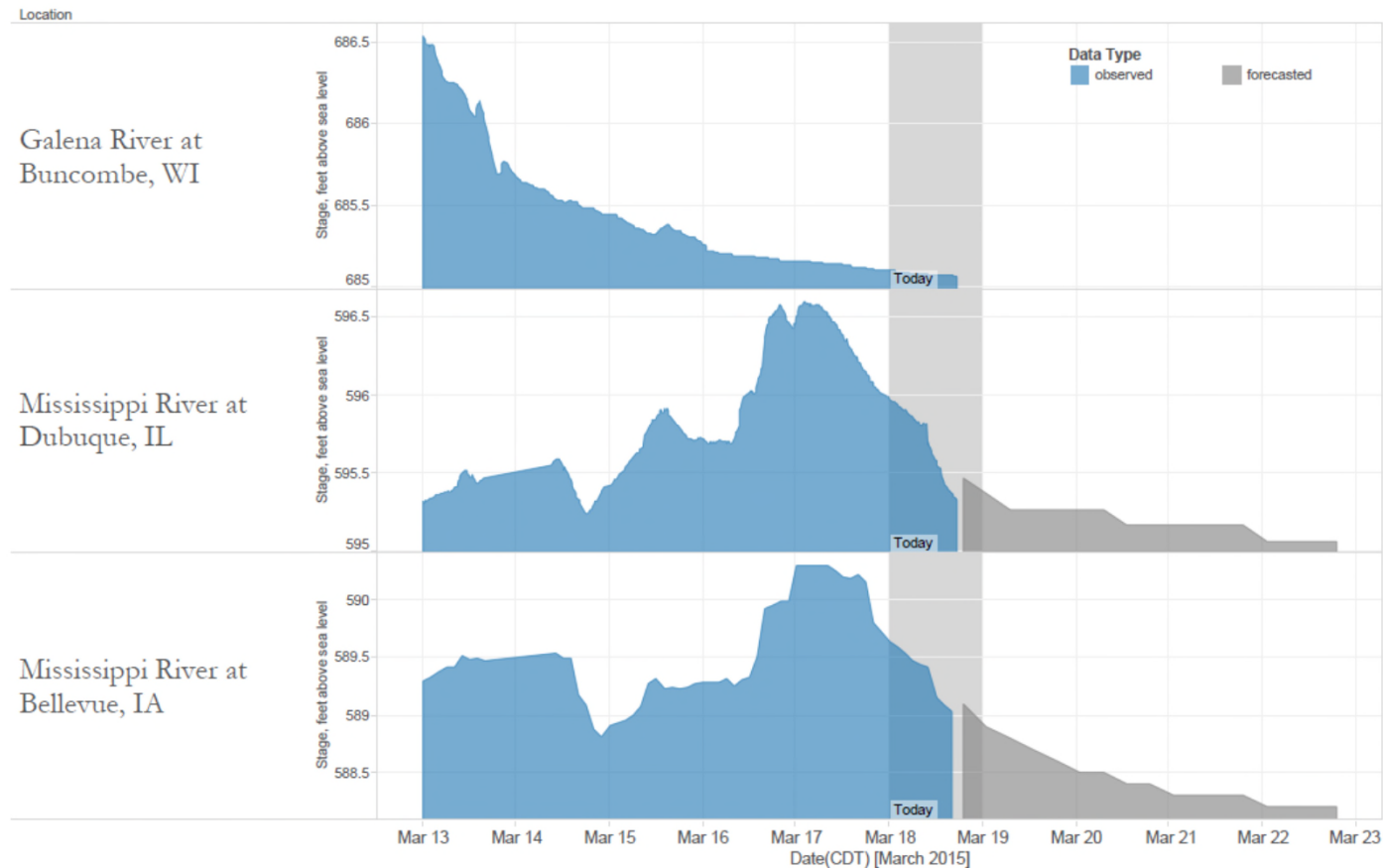
IDNR & US FWS
did not identify
endangered
species at
derailment site



River Level Monitoring

(unseasonably stable/low)

MISSISSIPPI AND GALENA RIVER LEVELS
AT DUBUQUE, BELLEVUE, AND BUNCOMBE as of 3/18/2015 18:11:00
BNSF GALENA RESPONSE



Data Obtained from NOAA at 3/18/2015 18:11:00
<http://www.water.weather.gov/ahps2/hydrograph.php?wfo=mkx&gage=bunw3>
<http://water.weather.gov/ahps2/hydrograph.php?wfo=dvn&gage=BLV4>
<http://water.weather.gov/ahps2/hydrograph.php?wfo=dvn&gage=DBQI4>

Remediation Activities

- Sheet pile impacted area - **complete**
- Excavate impacted soils - **complete**
 - Republic Upper Rock Island LF, E. Moline, IL
- Flush ballast / ramp & recover oil - **ongoing**
- Water Treatment - **ongoing**
- Remove crude - **ongoing**
- Backfill & restoration – **planning**
 - US ACE, property owner input
- Monitoring - **planning**



Sheet Pile Containment



The numbers (so far)...

Product	Total
Crude Oil	230,242 gal
Oil/Water Mixture	35,132 gal
Contact Water (treated)	216,800 gal (+)
Contaminated Soil	3,568 tons (+)
Oily & General Debris	40 yds (+)
Tankers wrecked	12



Next Steps

- Response
 - After Action Reports/Reviews
 - USEPA & IEPA participated in meeting on 3/27
 - Update Emergency Operation Plans
 - Lessons learned
 - Building Capability
 - Cost Recovery
 - Galena requested \$227,300 from BNSF
 - USEPA / USCG will develop request (\$250k OSLTF)



to



transition

- Transition plan/schedule developed w/ IEPA (3/19)
- USEPA memo to IEPA SRP Unit Leader (3/20)
- UC dissolution memo (3/24)
- NPDES Permit
 - Water Treatment Unit - USEPA FOSC email exercising NCP, CWA Section 311(c) & NPDES Section 122.3(d) authority to exempt NPDES permit (3/24)
 - Construction Site – General permit issued by IEPA (3/27)
- IEPA SRP
 - Rockford Regional Office field oversight - Greg Kazmerski
 - Springfield office project manager - Jeff Guy
- IEPA perspective ?

Issues of Interest

- JIC established, however....
 - No joint appearances w/ RP
 - Press releases / updates issued separately by City, State, USEPA, RP
- EPA POLREP utilized 'imminent & substantial endangerment' language confused press
 - Clarified in next press cycle
- Property ownership (impacted area)
- 24 work plans developed, approved by UC
- Putting the fire out...

Questions ?

<http://www2.epa.gov/il/galena-train-derailment>

<http://epaossc.org/bnsfgalenaspill>

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