Presentation to the Environmental Quality Commission

DEQ's Emergency Response Program

Nov. 15, 2019
Portland, Oregon

Overview

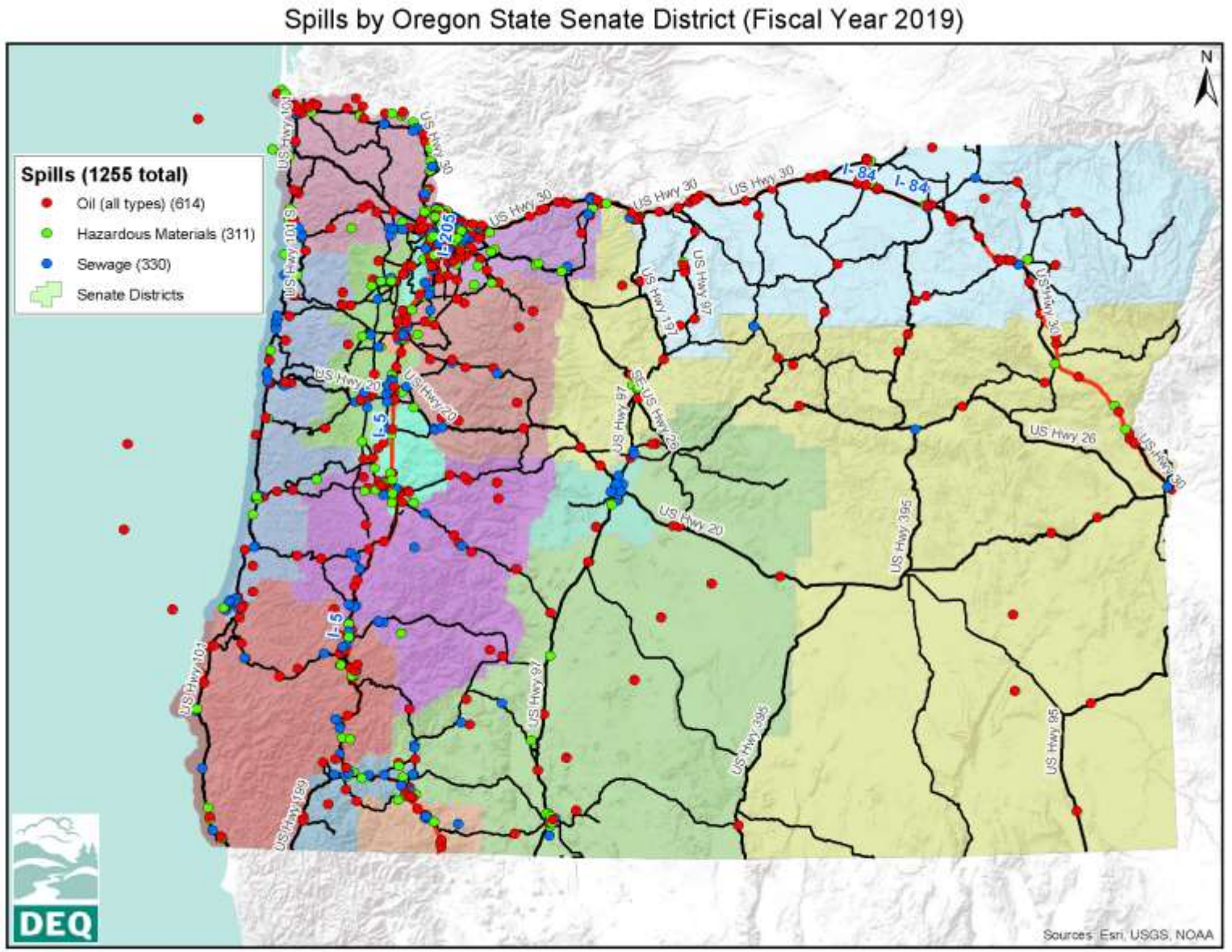
Authorities

Planning

Preparedness

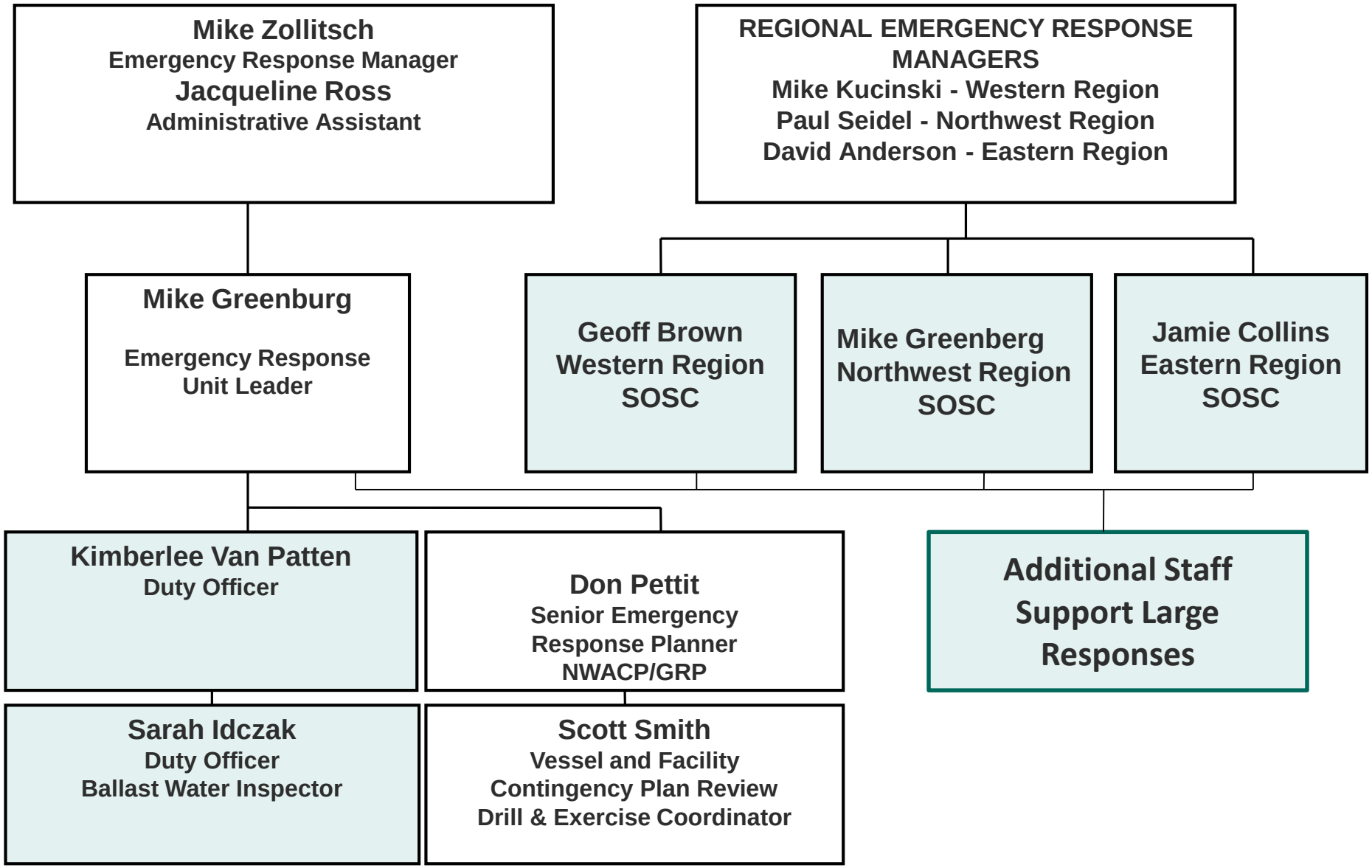
Response

People



DEQ


STRAIT LADY
SEATTLE, WA.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Emergency Response Manager
Jacqueline Ross
Administrative Assistant
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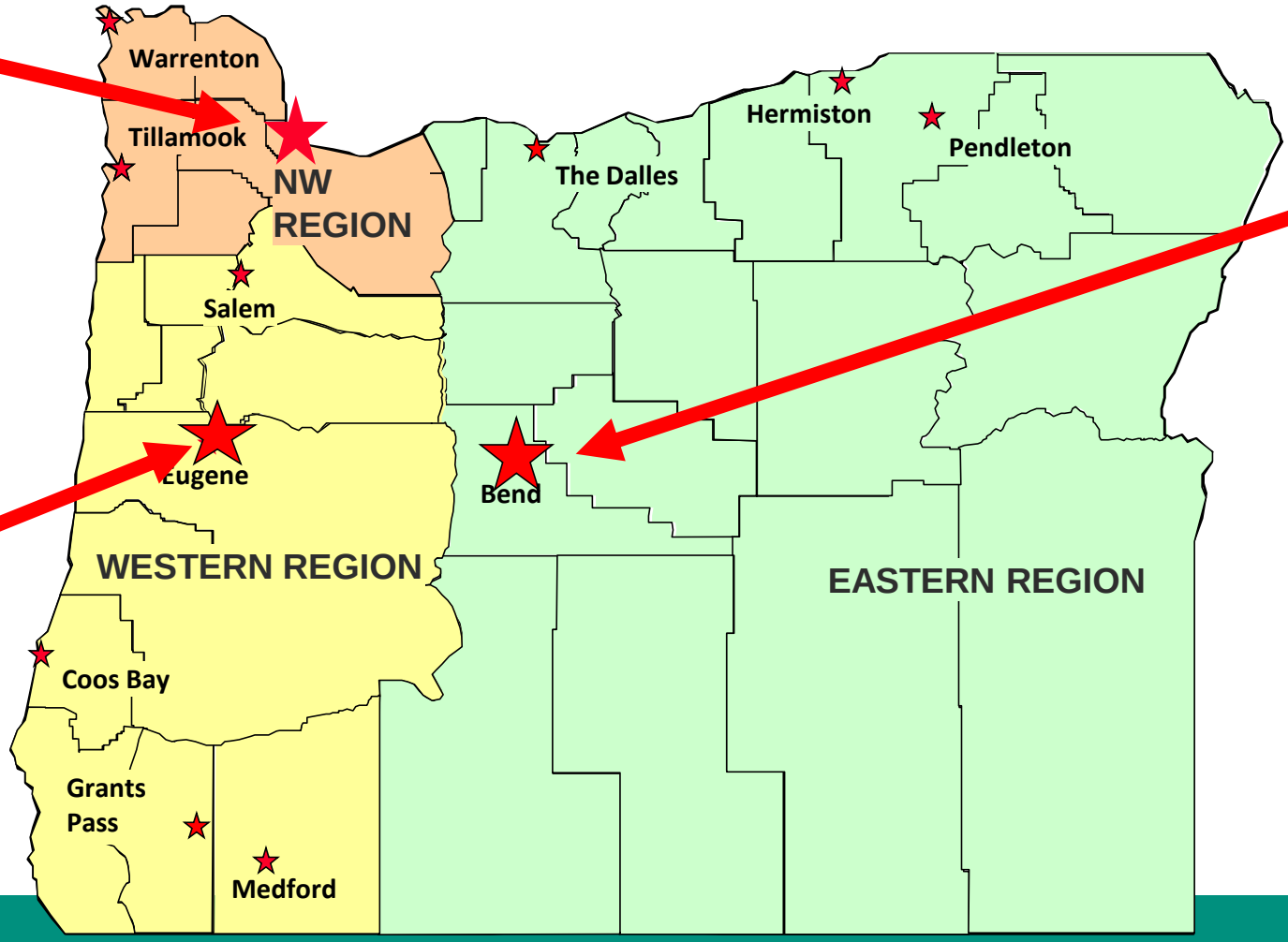
Paul Seidel - Northwest Region
David Anderson - Eastern Region
Mike Greenburg
Emergency Response Unit Leader
Geoff Brown
Western Region SOSC
Mike Greenberg
Northwest Region SOSC
Jamie Collins
Eastern Region SOSC
Kimberlee Van Patten
Duty Officer
Don Pettit
Senior Emergency Response Planner
NWACP/GRP
Additional Staff Support Large Responses
Sarah Idczak
Duty Officer
Ballast Water Inspector
Scott Smith
Vessel and Facility Contingency Plan Review
Drill & Exercise Coordinator

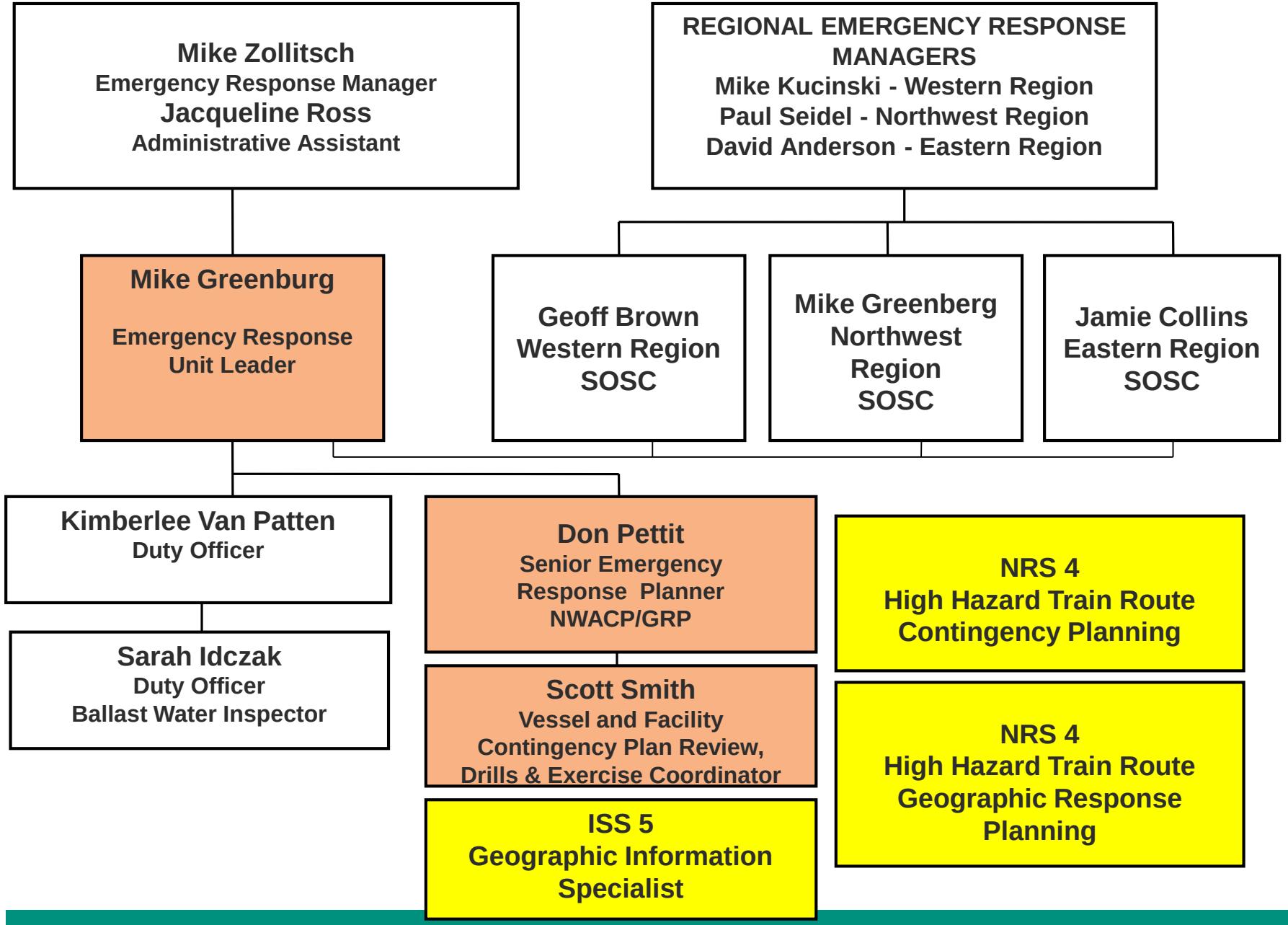
State On-Scene Coordinators at DEQ Offices

Designated by Oregon law

Coordinate all aspects of the cleanup for Oregon

Represent DEQ and the State in a Joint Command

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ISS 5
Geographic Information Specialist
NRS 4
High Hazard Train Route Contingency Planning
NRS 4
High Hazard Train Route Geographic Response Planning

Authorities

Authorities

- ORS 468B.300-500, ORS 465, 466
- Northwest Area Contingency Plan
- Oregon Emergency Management Plan
- CERCLA
  - Release or Threat of Release
    - » Hazardous Substances
    - » Pollutants and Contaminants
  - "Imminent and substantial endangerment to human health or the environment"
- Oil Pollution Act-Clean Water Act
  - Oil impacts or threatens to impact waters of the United States
- National Contingency Plan / FEMA Emergency Support Function 10

Planning and Preparedness

Contingency Planning

- 1500 Cargo Vessels Per Year
- 20 to 100 Tank Vessels per year
- 1200 to 1500 Tank Barge Trips per year

21 Oil Spill Contingency Planholders including 12 petroleum facilities, 5 petroleum pipelines and 4 vessel plans.

Oregon has no refineries, but there are two crude oil export terminals.

We are expecting to have 2 High Hazard Train Line plans.

Time is of the Essence

Current Type	Length Scale	Time Scale	Uncertainty
River	10s of miles	Hours to days	Lowest

Tribal, State and Federal Partnerships

- Tribal Nations

- U.S. EPA
- U.S. Coast Guard
- NOAA
- U.S. Fish and Wildlife
- Army Corps of Engineers
- FEMA

- Governor's Office (Regional Solutions)
- Office of Emergency Management (Oregon Military Department)
- State Police-State Fire Marshal Office
  - HazMat Teams
  - Oregon Emergency Response System
- Oregon Dept. of Transportation
- Forestry
- State Parks and Recreation (State Historic Preservation Office)
- Department of Fish and Wildlife
- Oregon Health Authority
- Department of Energy

DEQ Assets:

- Personnel
- Contractors
- Mobile Command Trailer
- Laboratory Co-located with Oregon Public Health Laboratory

Oregon Spills June 3 – 10, 2016

Date	Source	Material	Quantity Released	Potential	Location
3-Jun	UST	Lube Oil	50 Gallons	1,500 Gallons	Roseburg
3-Jun	**Rail (Unit Train)**	**Crude Oil**	**31,000**	**> 400.000**	**Mosier**
3-Jun	Drum	Unknown	Unknown	55 Gallons	Portland
4-Jun	Recreational Vessel	Paint	Unknown	Unknown	Portland
5-Jun	Commercial Truck	Diesel Oil	150 Gallons	300 Gallons	Stayton
5-Jun	**Tank Truck**	**Diesel Oil**	**20 Gallons**	**1,500 Gallons**	**Portland**
5-Jun	Abandoned Container	Muratic Acid	1 Gallon	1 Gallon	North Bend
6-Jun	Rail (Freezer Car)	Diesel Oil	1 Gallon	Unknown	Portland
6-Jun	**Tank Truck**	**Abatement Liquid**	**300 Gallons**	**Unknown**	**Myrtle Creek**
6-Jun	Recreational Vessel	Gasoline	10 Gallons	30 Gallons	Fairview
6-Jun	Rail (Cargo)	Non Hazardous Chemical	25 Gallons	Unknown	The Dalles
6-Jun	Facility	Chemical Product	15 Gallons	250 Gallons	West Linn
8-Jun	Rail (Locomotive)	Hydraulic Oil	3 Gallons	Unknown	LaGrande
8-Jun	**Tank Truck**	**Gasoline/Diesel Oil**	**100 Gallons**	**2000 Gallons**	**St. Helens**
9-Jun	Recreational Vessel	Diesel Oil	5 Gallons	Unknown	Newport

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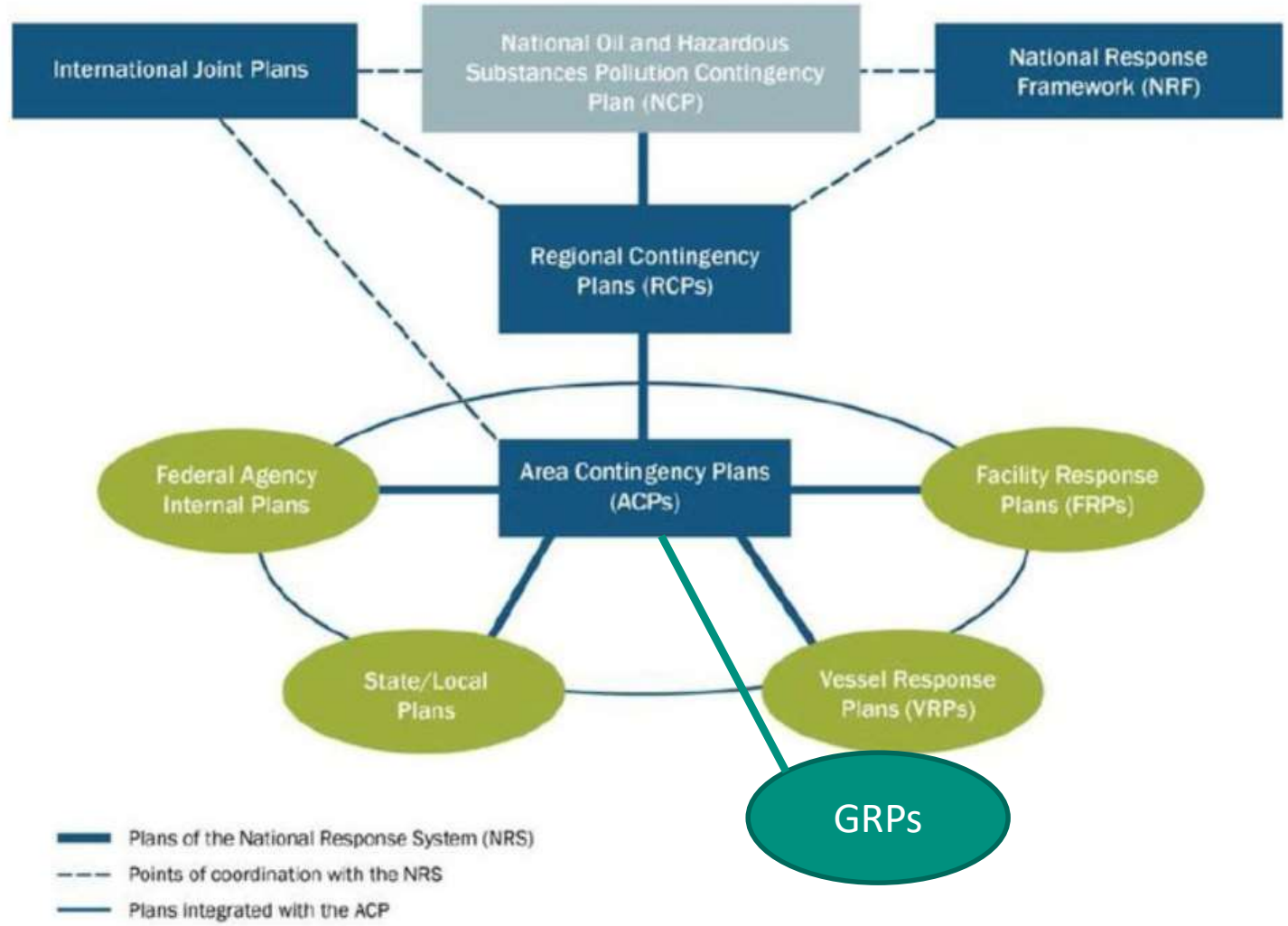
CASCADIA RISING

DEQ regulates 12 petroleum facilities and three petroleum pipelines in the CEI

DEQ

The National Response System



From NRF to County Emergency Plans

- DEQ works with all levels of the National Response Framework
  - From National Response Team/National Contingency Plan
  - **Regional Contingency Plan**
  - **Area Contingency Plan (+GRP Annexes)**
  - **State Emergency Operations Plan**
  - **Vessel/Facility Contingency Plan**
  - Local Emergency Planning Committees

NWAC / RRT

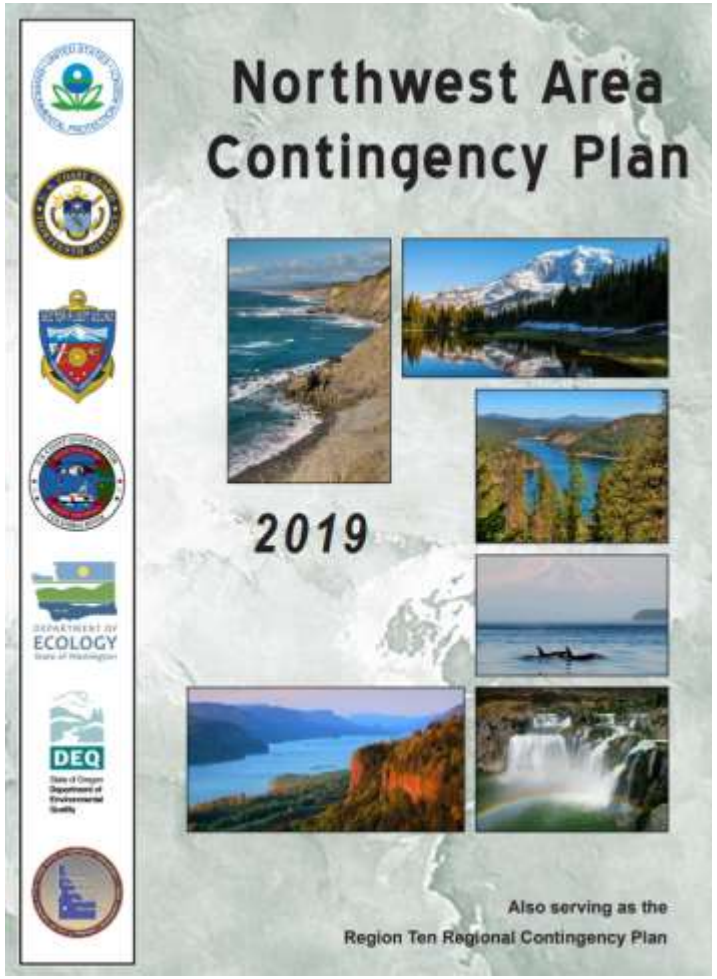

NW Area Committee and
Regional Response Team 10
USDA
United States Department of Agriculture
NOAA
Washington State Department of Health
ECOLOGY
DEQ
State of Oregon
Department of Environmental Quality
IDAHO
BUREAU OF HOMELAND SECURITY
DHS Oregon Department of Human Services
OREGON

Northwest Area Contingency Plan

- The Northwest Area Contingency Plan (NWACP) is a planning tool that provides for a safe, appropriate, and timely response to reports of oil or hazardous substance spills.
- The NWACP documents specific policies, identifies required notifications, and provides tools and information to aid in undertaking an effective response to a spill of oil or hazardous materials.

NW Area Contingency Plan

- Serves as the State of Oregon's Hazardous Materials Response Plan under the State's Emergency Operations Plan
- Serves as both policy guiding response, and tools to accomplish safe and effective response
- Updated annually



NWACP Organization

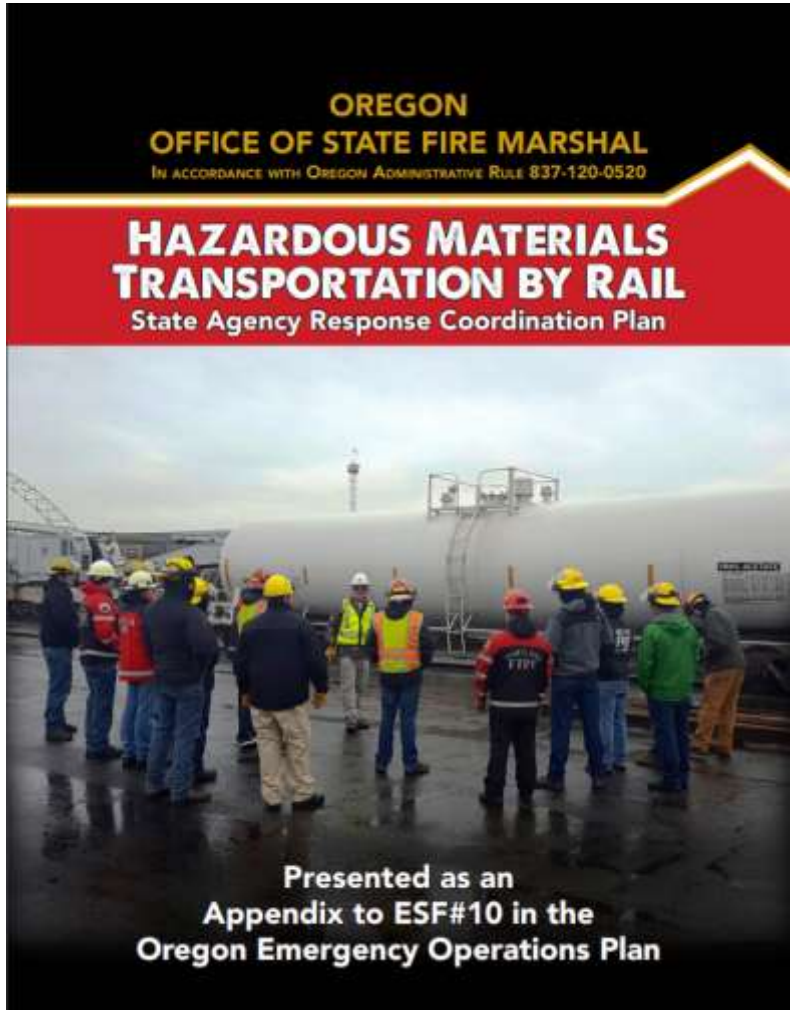
- Front Matter – Required Notifications/First Responder Guidelines
- Chapter 1000 Introduction/Authorities
- Chapter 2000 Command
- Chapter 3000 Operations
- Chapter 4000 Planning
- Chapter 5000 Logistics
- Chapter 6000 Finance/ Administration

- Chapter 9000 Response Tools
  - 9202 JIC Manual
  - 9210 Liaison Manual
  - 9310 Northwest Wildlife Response Plan
  - 9402 NWACP Permit Summary Table
  - 9405 Disposal Guidelines
    - And a lot more great response tools…27 sections in Chapter 9000

State Emergency Management Plan

- Volume I – Natural Hazard Mitigation Plan
- Volume II – State Preparedness Plan
- Volume III – Emergency Operations Plan
  - DEQ Responsible (with OSFM) for ESF 10 Hazardous Materials, DEQ Supports numerous other ESFs
  - Incident Annexes for 10 Disaster Types, Functional Annexes and Supporting Plans for Cascadia, Debris Management, Wildfire (smoke), etc.
- Volume IV – State Recovery Plan

Other State Plans

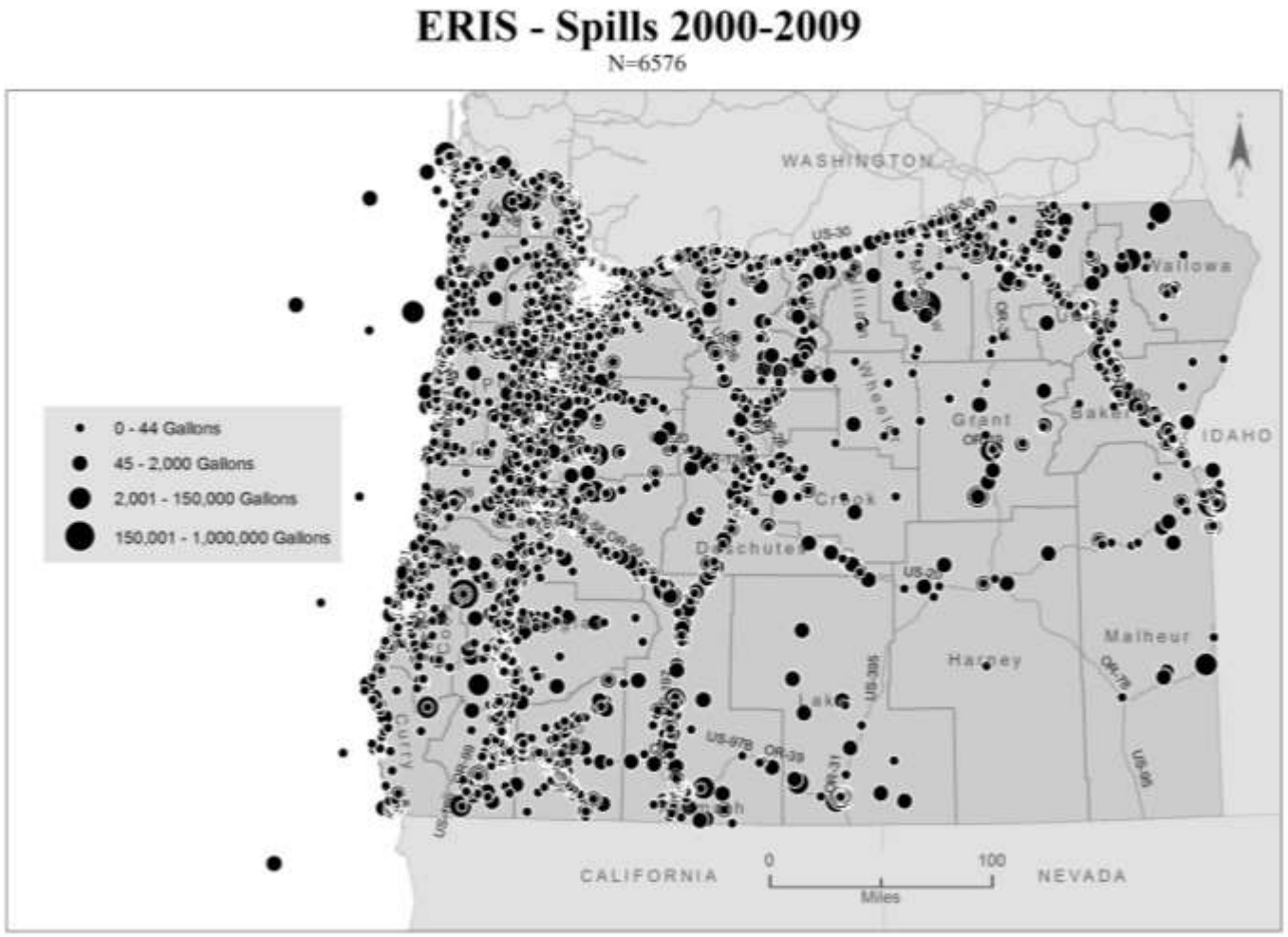


Hazardous Materials Transportation by Rail

Annex to ESF10 in the State Emergency Operations Plan

DEQ shares the ESF10 with OSFM and helped develop the Coordination Plan

Snapshot of Oregon's Risk to Spills



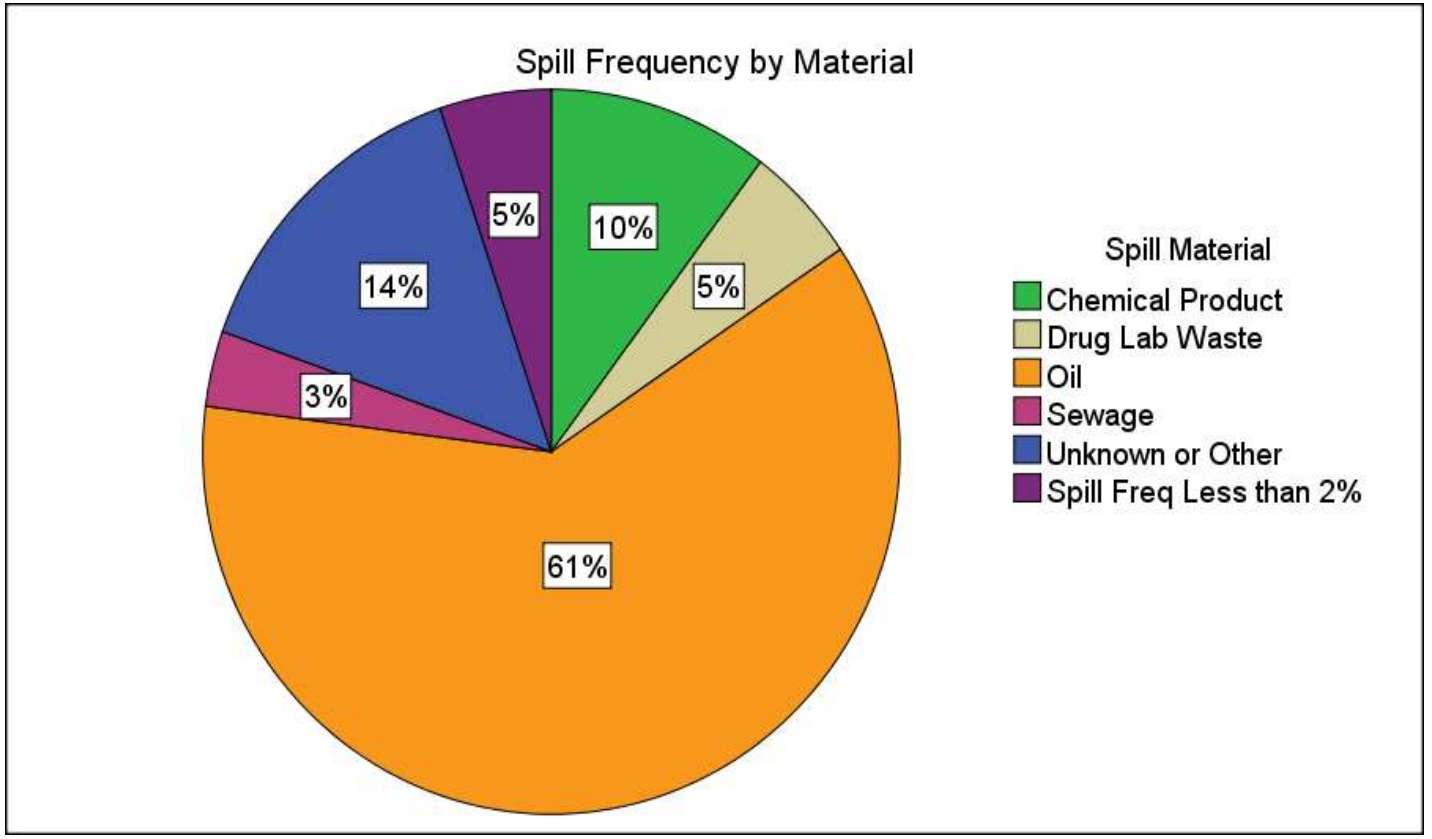
10 years of program data show spills …

- Are predominately located along transportation corridors
- Occur throughout the state
- Are not just limited to waterways

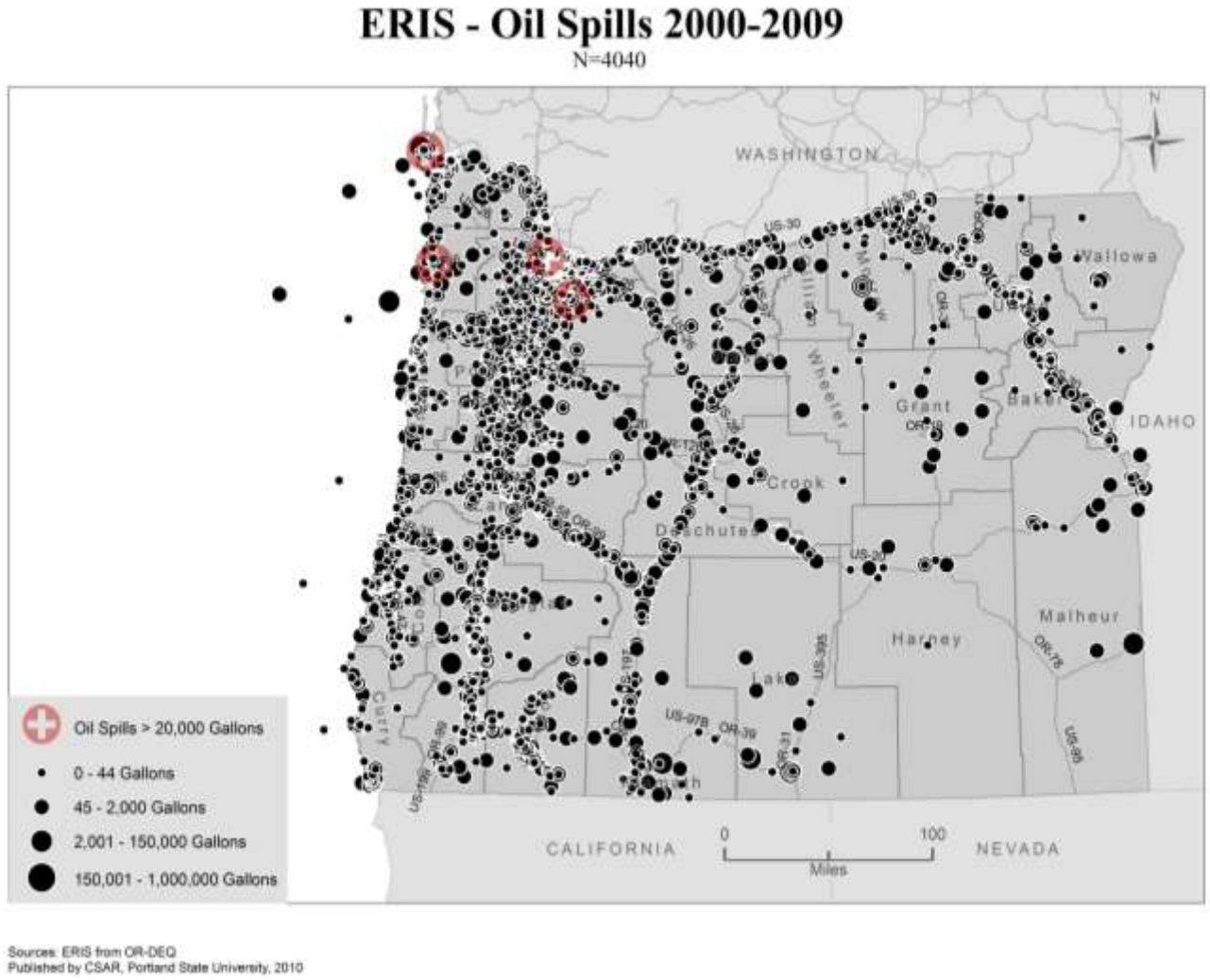
Snapshot of Oregon's Risk to Spills

10 years of program data show…

- The predominant type of spill involves oil products
- Chemical products next most common type of spill
- Unknown or other 14%



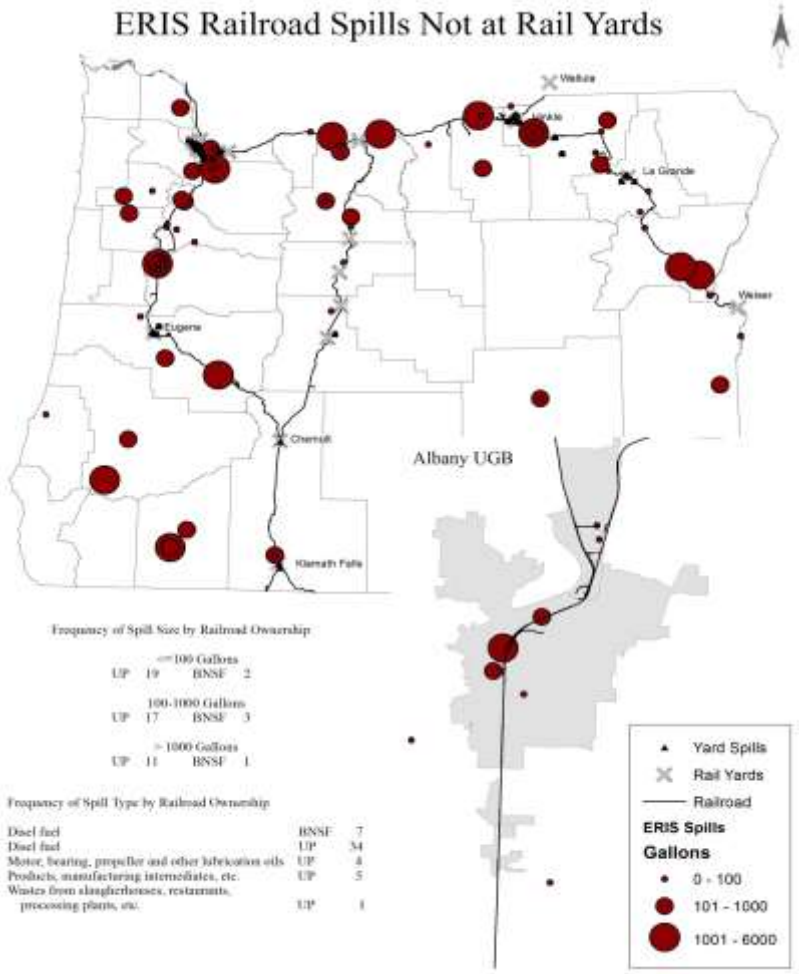
Snapshot of Oregon's Risk to Oil Spills



10 years of program data show…

- For oil spills, larger events do occur along waterways most often
- The more typical "large" event can occur anywhere in the state

Snapshot of Oregon's Risk to Oil Spills



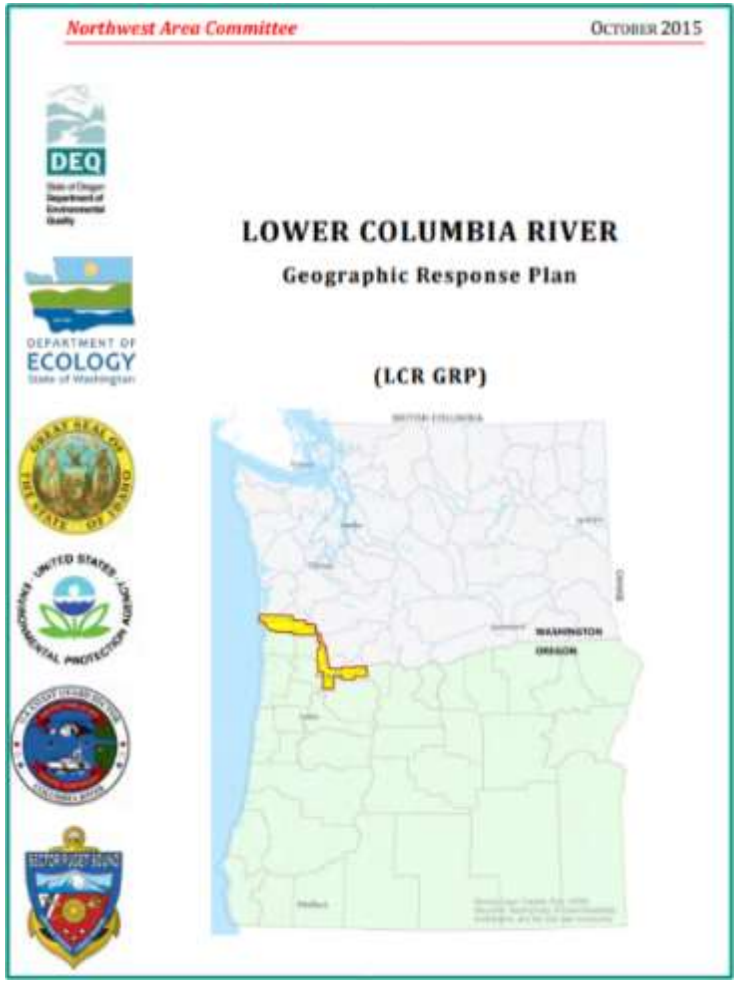
For Railroad Spills

- Many larger events occur within rail yards…

However

- Many larger events occur outside of rail yards as well

Geographic Response Plans



Clatsop Community College Dock — LCR-19.0L

Position - Location:	46° 11.390', -123° 44.734'	46° 11' 23.4", -123° 44' 44.0"	46.18984, -123.74557	Astoria

Strategy Objective:	Exclusion : Keep oil out of ODFW salmon net pens.
Implementation:	Deploy boom around net pens and pier at the north end of the USCG Station on Tongue Point. Anchor at AP-1, AP-2, AP-3, and AP-4 and every 100-150ft. along boom length or as appropriate for conditions.
Staging Area:	Remote: Stage at SA-LCR-17.7L, Tongue Point Boat Launch
Site Safety:	Slips, trips, and falls. Water hazards.
Field Notes:	Access by boat or vehicle from the USCG Station.
Watercourse:	River - Below a Dam - John Day Channel/Cathlamet Bay
Resources at Risk:	Economic Resource

Recommended Equipment

10	Each	Anchoring System(s) - (anchor, lines, floats)
1000	Feet	Boom - B3 (River Boom) or equivalent
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer
1	Supervisor

Multnomah Channel entrance (OR) MC-0.1

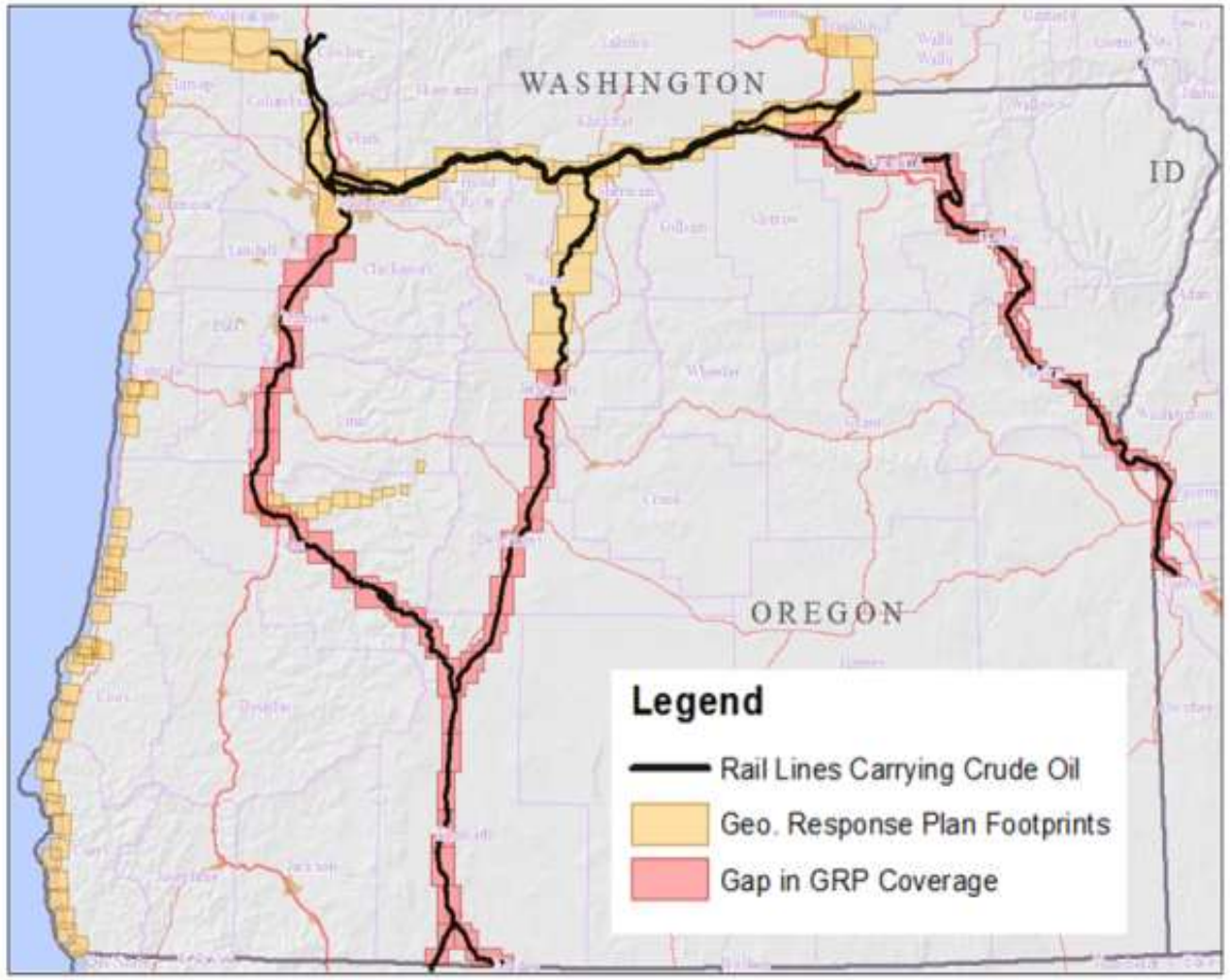
Position - Location:	45° 36.983', -122° 47.584'	45° 36' 59.0", -122° 47' 35.1"	45.61638, -122.79307	Portland

Strategy Objective: Collection : Collect oil to prevent it from entering Multnomah Channel.

Implementation: Launch from Fred's Marina, BL-MC-1.0, with 2000ft. boom. Secure 1000 ft section of boom using shoreside anchoring system at A. Extend boom N and anchor to pilings at B, then extend boom NW towards Multnomah Channel and anchor at C. Anchor second 1000ft section of boom at C and extend east into center of Willamette River channel to anchor at D, to form collection pocket at C. Use skimmer and floating storage/barge at C to collect oil.

Staging Area: Remote: Stage at Fred's Marina, SA-MC-1.0

Geographic Response Plans



- Oregon has GRPs for the open coastline, coastal bays, the Columbia and Willamette Rivers (to Oregon City) and the Lower Deschutes
- Oregon has large gaps in GRP coverage for inland areas and rail routes

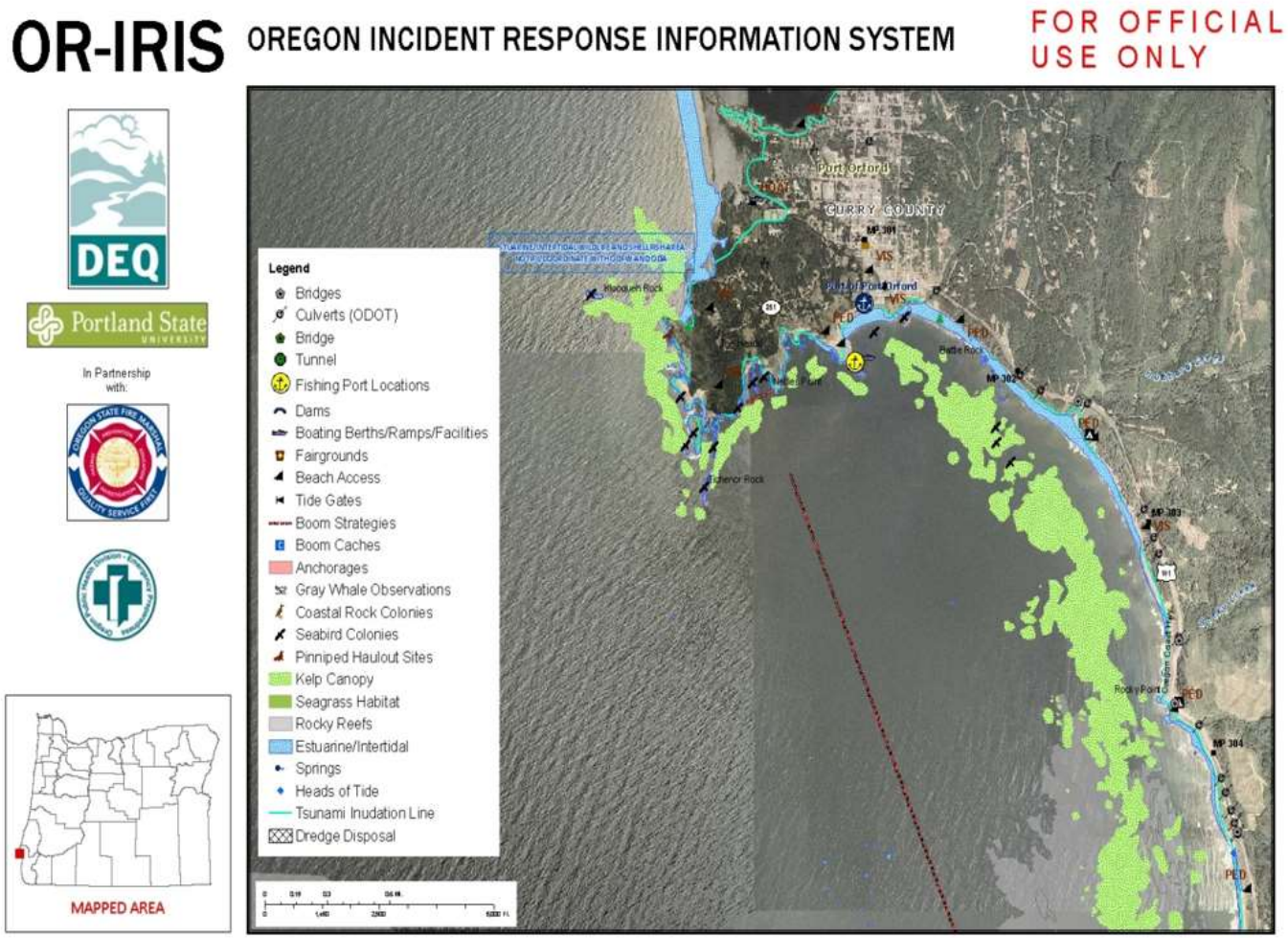
DEQ

Oregon Coastal GRP Update

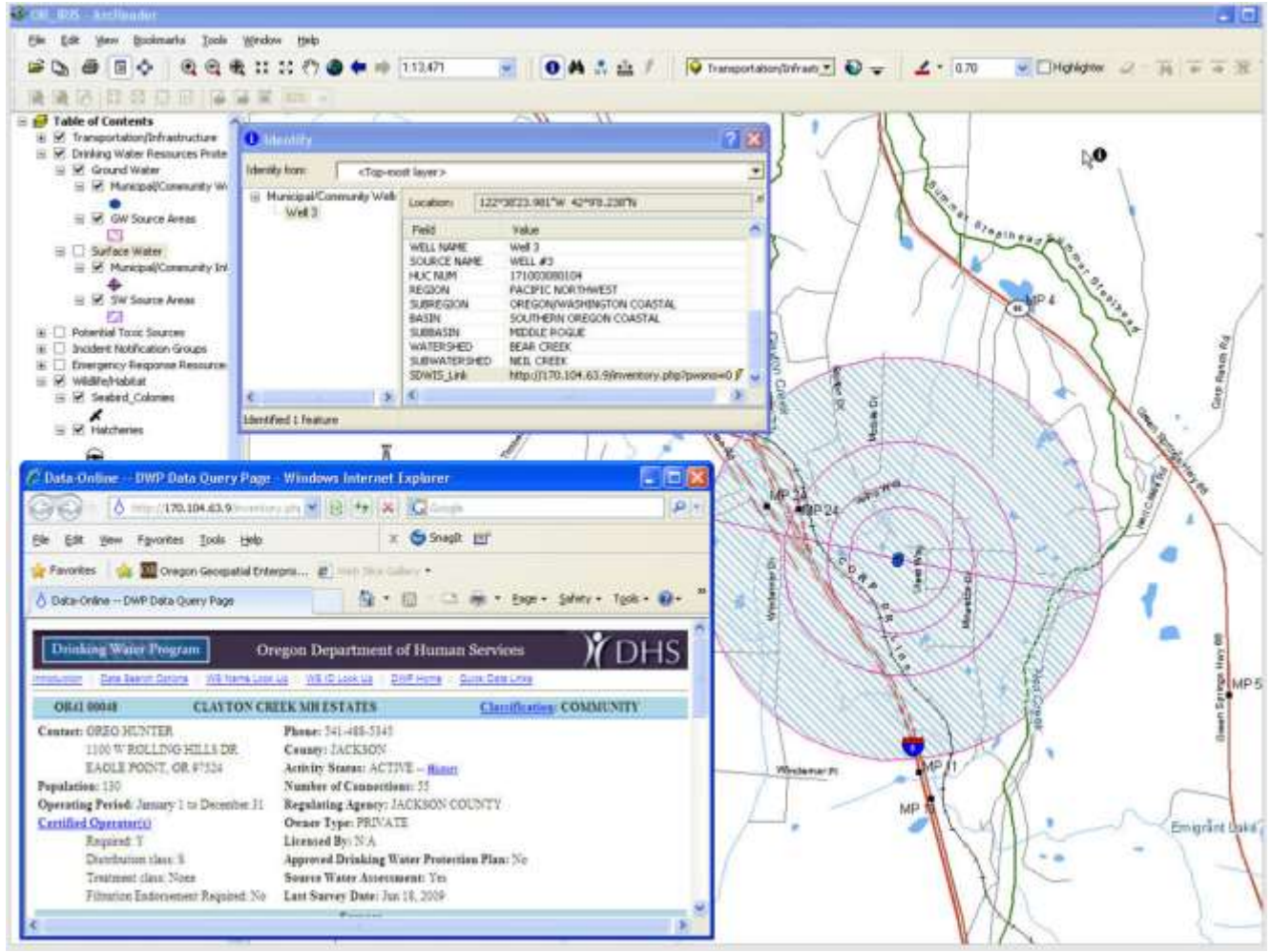
What Other Tools Does DEQ Have?

OR-IRIS

- Geodatabase w/ >250 datasets
- Resources at Risk
- Contaminant Sources
- Response Resources



What Other Tools Does DEQ Have?



OR-IRIS

- State-wide coverage
- Ability to leverage external databases
- Data supports other emergency management applications (RAPTOR)

Response

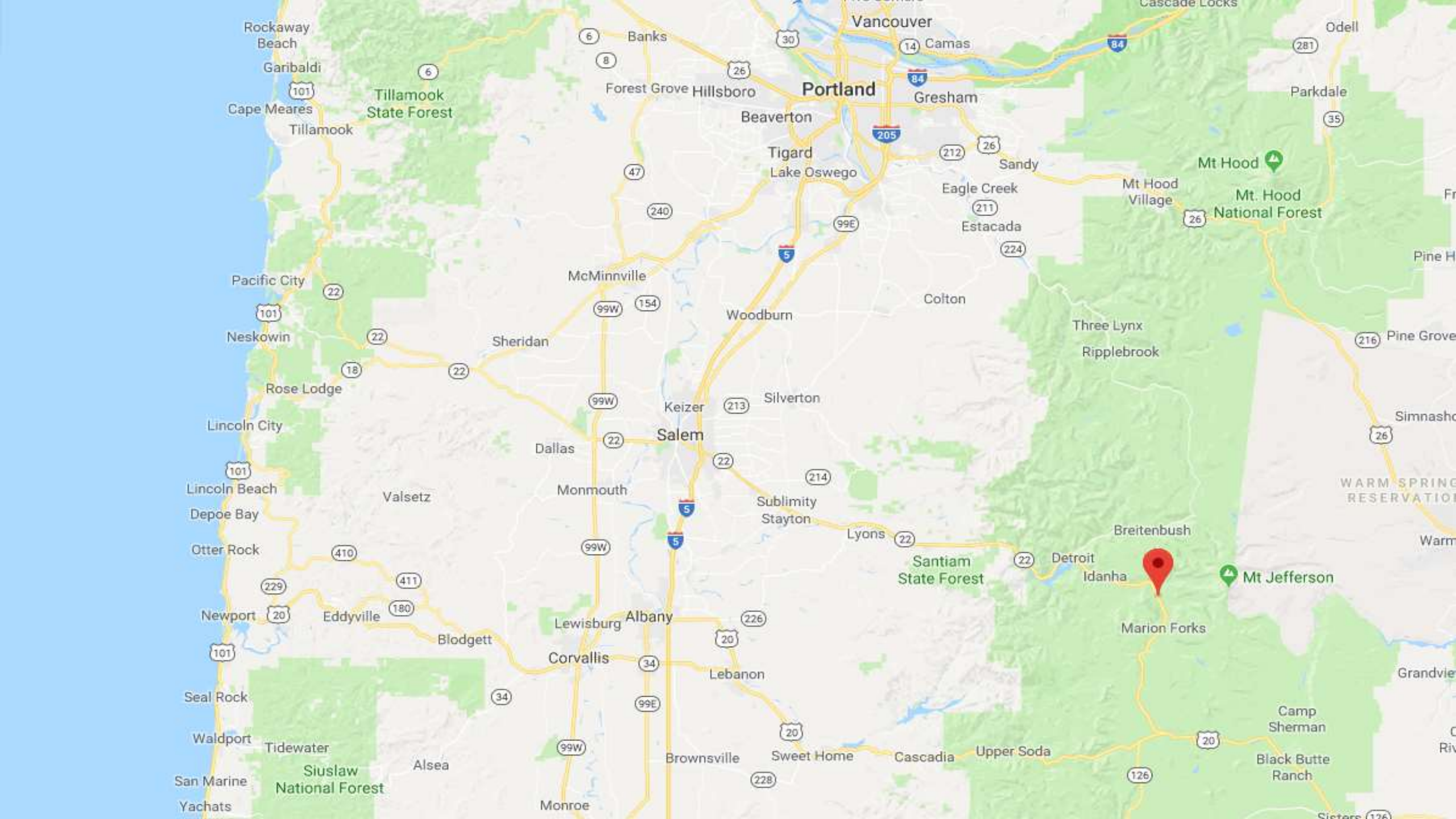
Tanker Truck Crash
Central Petro

Highway 22, Mile Post 62

Phase 1
December 15-22, 2017

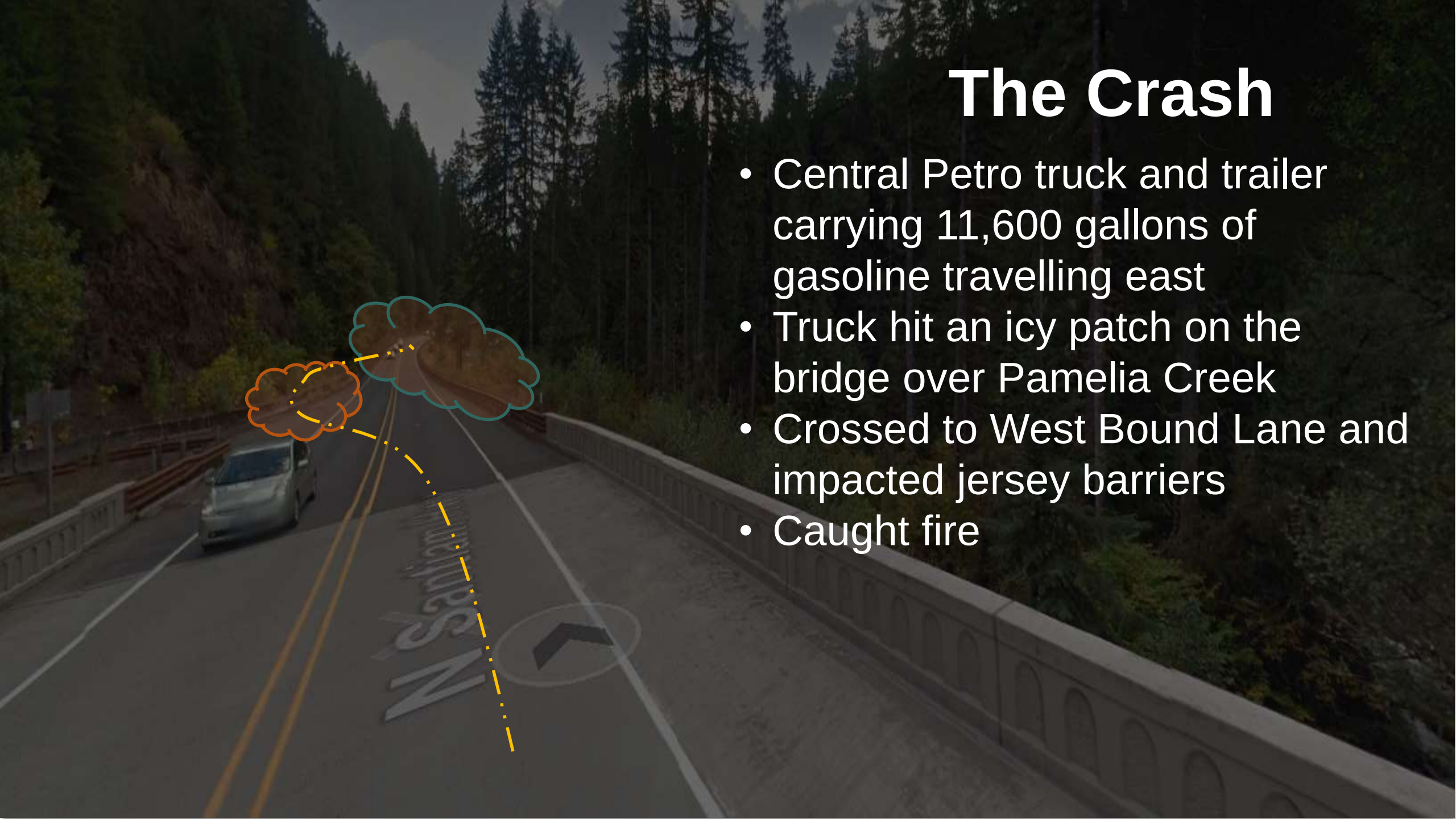
Phase 2
July 23-August 23, 2018

DEQ


Rockaway Beach
Garibaldi
Cape Meares
Tillamook
Tillamook State Forest
Banks
Forest Grove
Hillsboro
Vancouver
Camas
Portland
Gresham
Beaverton
Tigard
Lake Oswego
Sandy
Eagle Creek
Estacada
Mt Hood Village
Mt Hood
Mt. Hood National Forest
Parkdale
Odell
Cascade Locks
Pacific City
Neskowin
Rose Lodge
Lincoln City
Lincoln Beach
Depoe Bay
Otter Rock
Newport
Seal Rock
Waldport
San Marine
Yachats
Siuslaw National Forest
Tidewater
Alsea
Eddyville
Blodgett
McMinnville
Sheridan
Woodburn
Colton
Three Lynx
Ripplebrook
Pine Grove
Simnasho
Keizer
Silverton
Salem
Dallas
Monmouth
Valsetz
Sublimity
Stayton
Lyons
Santiam State Forest
Detroit
Idanha
Breitenbush
Mt Jefferson
Marion Forks
Lewisburg
Albany
Corvallis
Lebanon
Brownsville
Sweet Home
Cascadia
Upper Soda
Camp Sherman
Black Butte Ranch
Monroe

The Crash

- Central Petro truck and trailer carrying 11,600 gallons of gasoline travelling east
- Truck hit an icy patch on the bridge over Pamelia Creek
- Crossed to West Bound Lane and impacted jersey barriers
- Caught fire



- The truck caught fire and burned to the ground
- Other vehicles were involved in the crash including a school bus and a fire truck

Fuel Spill

- The unburned fuel soaked into the roadside soil near westbound lane
- Fuel soaked into the riprap bank of the North Santiam River and flowed into the river
- Sheen and gasoline odors were noted several miles downstream of the spill site within 6 hours of the spill
- Soils along the riverbank acted as an ongoing source for sheen in the river.

DRINKING WATER SYSTEM INTAKES

Salem Public Water Supply

Stayton Water Supply

Date	Sample ID	Analysis	Result (µg/L)
12/17/2017	17120006	Gasoline	35.0 U
12/17/2017	17120006	Benzene	0.150 U
12/18/2017	17120017	Gasoline	35.0 U
12/18/2017	17120017	Benzene	0.150 U
12/19/2017	17120026	Gasoline	35.0 U
12/19/2017	17120026	Benzene	0.150 U

GATES

DI03

DI02

Lyons-Mehama Water District

Date	Sample ID	Analysis	Result (µg/L)
12/17/2017	17120004	Gasoline	35.0 U
12/17/2017	17120004	Benzene	0.150 U
12/18/2017	17120015	Gasoline	35.0 U
12/18/2017	17120015	Benzene	0.150 U
12/19/2017	17120023	Gasoline	35.0 U
12/19/2017	17120023	Benzene	0.150 U

DI01

- City of Gates
- Lyons/Mehama Water District

- Salem Public Water Supply
- Stayton Water Supply

SR03

Salem Public Works

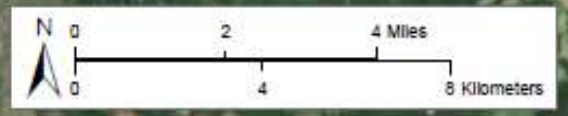
Date	Sample ID	Analysis	Result (µg/L)
12/17/2017	17120005	Gasoline	35.0 U
12/17/2017	17120005	Benzene	0.150 U
12/18/2017	17120016	Gasoline	35.0 U
12/18/2017	17120016	Benzene	0.150 U
12/19/2017	17120024	Gasoline	35.0 U
12/19/2017	17120024	Benzene	0.150 U
12/19/2017	17120025	Gasoline	35.0 U
12/19/2017	17120025	Benzene	0.150 U

Lyons/Mehama Water District

City of Gates

Date	Sample ID	Analysis	Result (µg/L)
12/17/2017	17120007	Gasoline	35.0 U
12/17/2017	17120007	Benzene	0.150 U
12/18/2017	17120014	Gasoline	35.0 U
12/18/2017	17120014	Benzene	0.150 U
12/19/2017	17120027	Gasoline	35.0 U
12/19/2017	17120027	Benzene	0.150 U

Stayton Water Supply



DEQ

Interagency Coordination

DEQ

Marion County

Office of Emergency Management

City of Salem

USFW

ODOT

EPA

Linn County

Oregon State Fire Marshall

Oregon Health Authority

Oregon Department of Fish and Wildlife

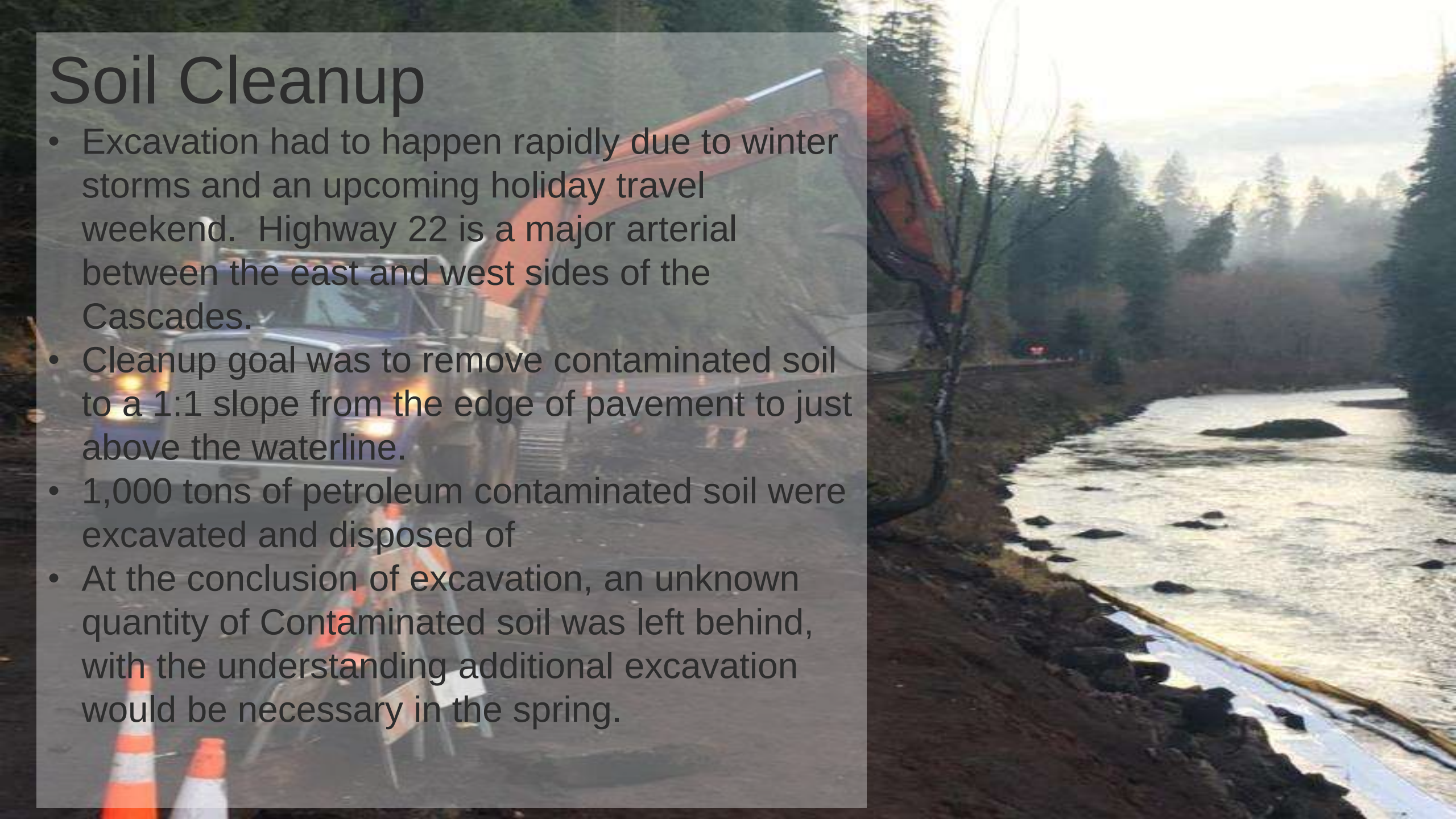
City of Stayton

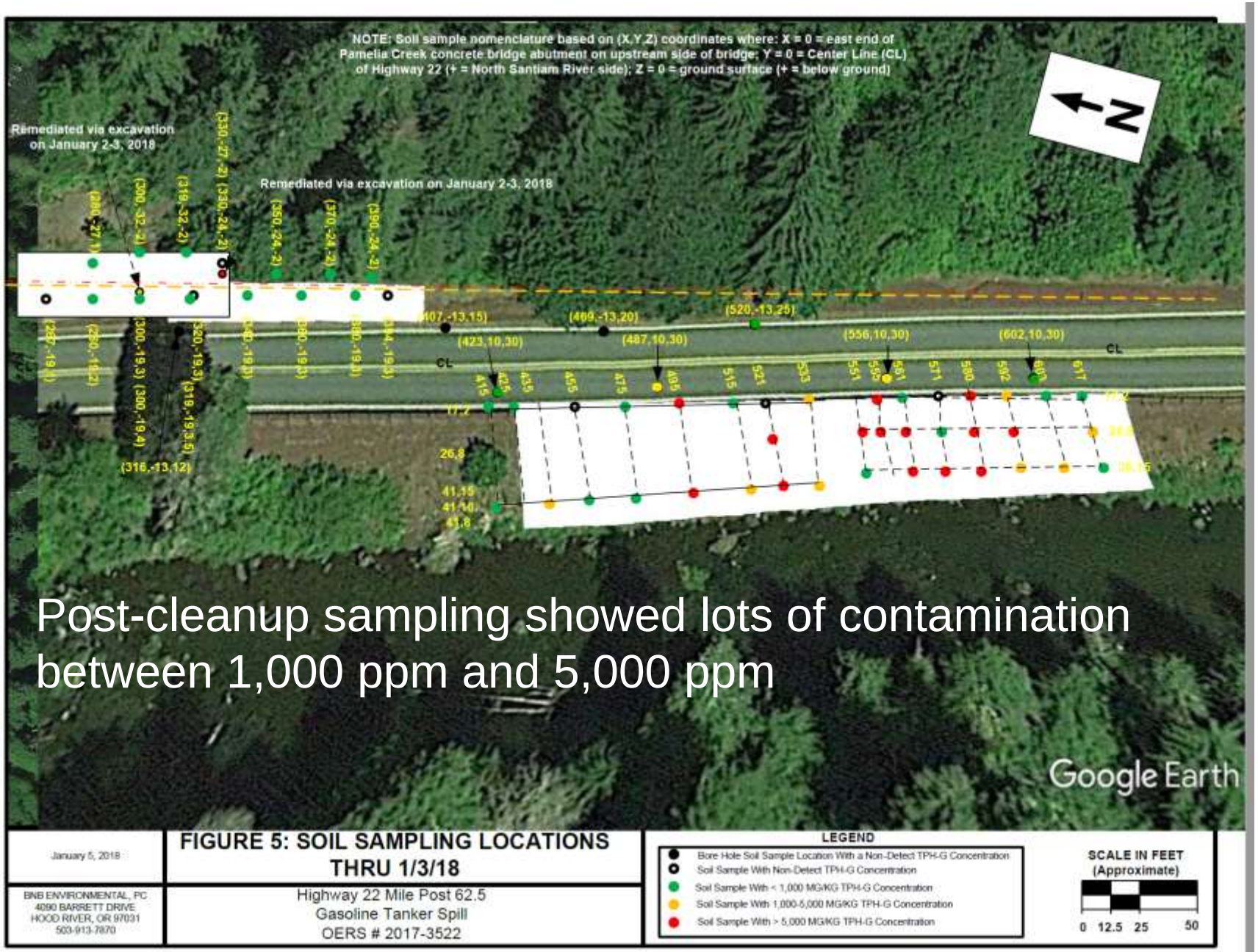
In River Response Actions

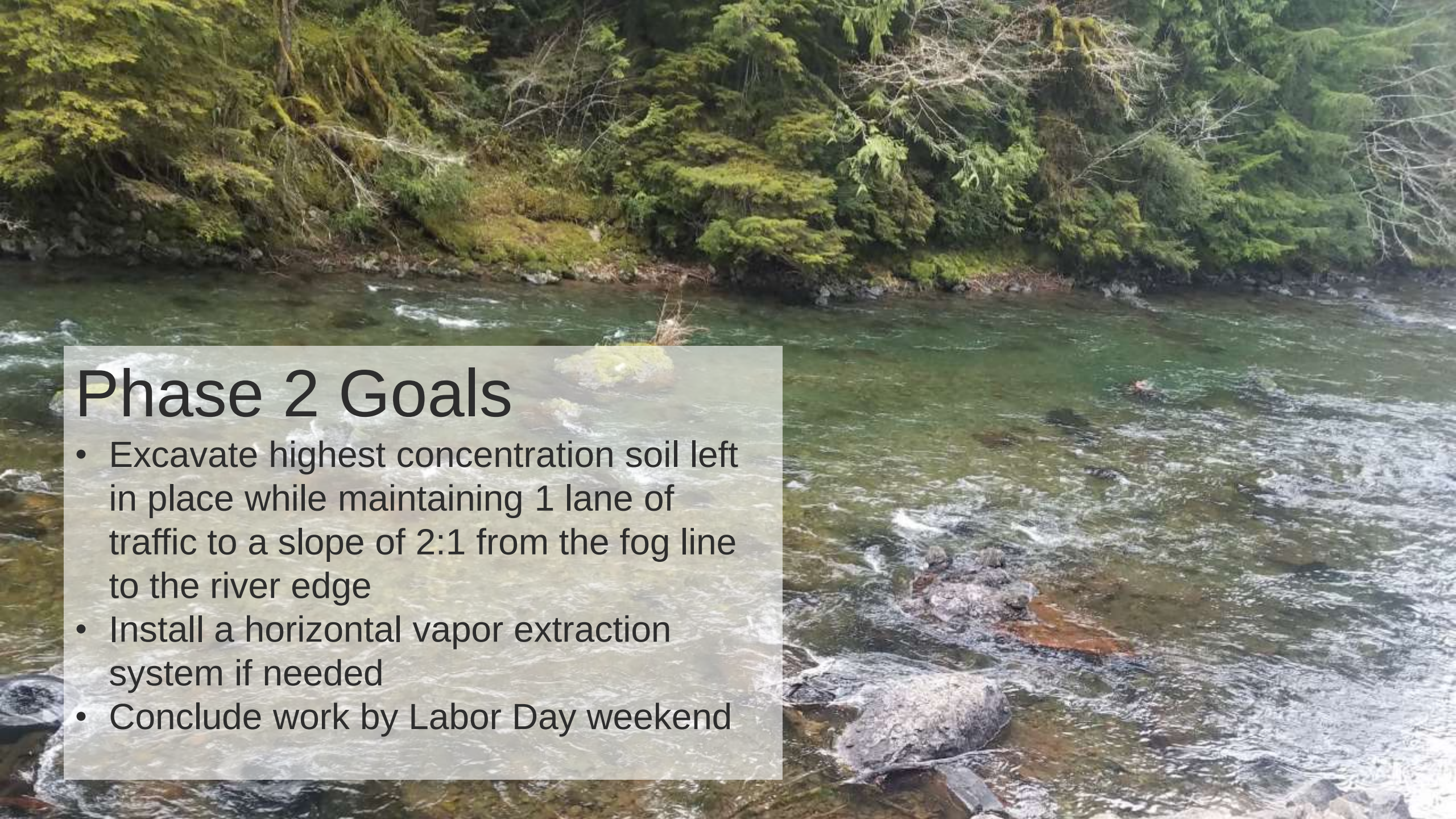
- 500 feet of hard boom placed around spill site
- Soft boom and absorbents placed inside hard boom
- Hard and soft boom are still in place in the river

Soil Cleanup

- Excavation had to happen rapidly due to winter storms and an upcoming holiday travel weekend. Highway 22 is a major arterial between the east and west sides of the Cascades.
- Cleanup goal was to remove contaminated soil to a 1:1 slope from the edge of pavement to just above the waterline.
- 1,000 tons of petroleum contaminated soil were excavated and disposed of
- At the conclusion of excavation, an unknown quantity of Contaminated soil was left behind, with the understanding additional excavation would be necessary in the spring.




NOTE: Soil sample nomenclature based on (X,Y,Z) coordinates where: X = 0 = east end of Pamelia Creek concrete bridge abutment on upstream side of bridge; Y = 0 = Center Line (CL) of Highway 22 (+ = North Santiam River side); Z = 0 = ground surface (+ = below ground)
Remediated via excavation on January 2-3, 2018
Remediated via excavation on January 2-3, 2018
N
CL
CL
Google Earth
Post-cleanup sampling showed lots of contamination between 1,000 ppm and 5,000 ppm
FIGURE 5: SOIL SAMPLING LOCATIONS THRU 1/3/18
January 5, 2018
BNB ENVIRONMENTAL, PC
4090 BARRETT DRIVE
HOOD RIVER, OR 97031
503-913-7870
Highway 22 Mile Post 62.5
Gasoline Tanker Spill
OERS # 2017-3522
LEGEND
Bore Hole Soil Sample Location With a Non-Detect TPH-G Concentration
Soil Sample With Non-Detect TPH-G Concentration
Soil Sample With < 1,000 MG/KG TPH-G Concentration
Soil Sample With 1,000-5,000 MG/KG TPH-G Concentration
Soil Sample With > 5,000 MG/KG TPH-G Concentration
SCALE IN FEET (Approximate)
0 12.5 25 50

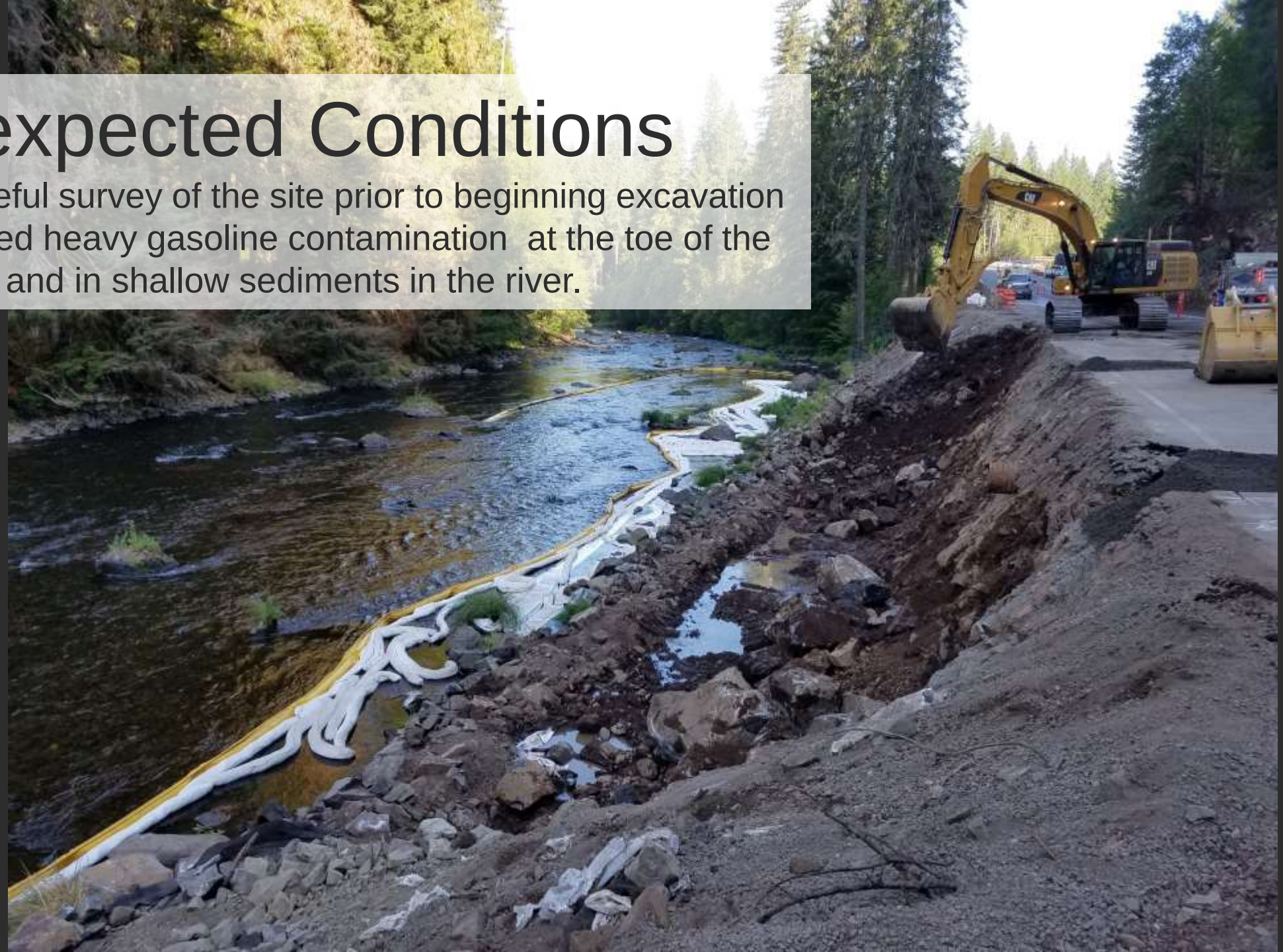


Phase 2 Goals

- Excavate highest concentration soil left in place while maintaining 1 lane of traffic to a slope of 2:1 from the fog line to the river edge
- Install a horizontal vapor extraction system if needed
- Conclude work by Labor Day weekend

Unexpected Conditions

- A careful survey of the site prior to beginning excavation showed heavy gasoline contamination at the toe of the slope and in shallow sediments in the river.



Aqua Dam Installation

Excavation Results

- Excavated 1400 tons of PCS
- Confirmation samples showed that nearly all of the contamination was excavated.
- Confirmation samples showed only two samples exceeded 2 ppm gasoline.
- Based on the low levels of contamination left behind, no active treatment system will be required.

Lessons Learned

- Delay in cleanup led to:
  - An elaborate and not very effective treatment system
  - Conflict between the agencies and the RP insurance carrier on whether a second round of cleanup was required
  - More extensive soil contamination
  - Disruption of heavy summer traffic for at least a month
- Other lessons:
  - Excavation is much more effective than active remediation systems such as SVE or Pump and Treat
  - Water-filled coffer dams may not work that well in freestone rivers. Also, they spring an exciting leak if you roll a big rock down on them. Also, it pays to have a roll of duct tape handy

Crabbing vessel *Ann Kathleen*

- Caught fire offshore of Bandon on 5/2/19
- The crew was rescued by good Samaritans and USCG
- 2000 Gallons of Diesel were on board
- The burning boat came ashore 10 miles south of Bandon

Special Considerations

- Prime Snowy Plover Habitat / Plover nesting season
  - The snowy plover is a federally listed threatened species under the Endangered Species Act
- Numerous Archeological Sites/Tribal interests
- Remote location – 6 miles of beach
- Numerous Agencies, Tribal Nations, and other interests including DEQ, Oregon State Parks, ODFW, SHPO, USCG, USFW, BLM, Coquille Indian Tribe, Private Landowners, Owners Representative
- DEQ hosted daily interagency calls to discuss the site conditions, stakeholder concerns, and cleanup plans

Initial **Size Up**

- Arrived on-scene on the evening of 5/2
- Boat was still burning and no sheen or staining was visible
- It was unclear whether or not the fuel had burned up.

Conditions on 5/3/19 AM

- Very soft sand, difficult even in UTVs
- Free diesel was standing in hull
- Unified Command
  - USCG
  - DEQ
  - RP Representative
- No Sheen in water or on the sand
- RP Representative hired Global Salvage out of Washington to respond

Site Conditions 5/3 PM

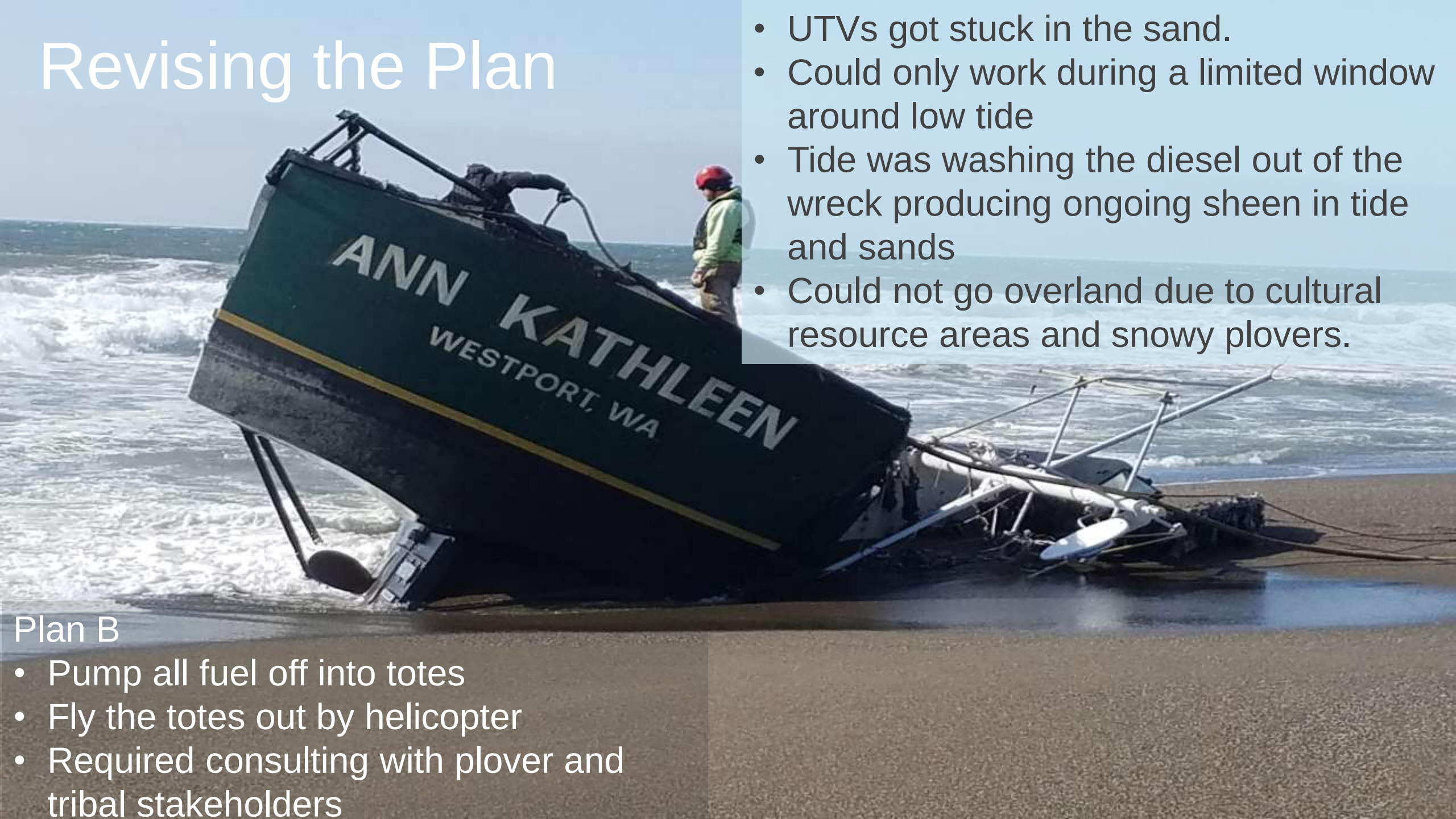
- Ship had rotated 180 degrees
- Fuel was going into the water
- Sheen was present as far as I walked in both directions
- The sand was sheeny in the vicinity of the wreck and smelled like diesel

Initial Plan

- Get Drums and Utility Vehicles (UTVs)
- Pump Wreck off a drum at a time
- Transport back to Staging area at Floras Lake one Drum at a time
- Collect fuel from staging area by Vac Truck


ANN KATHLEEN
WESTPORT, WA

Revising the Plan



- UTVs got stuck in the sand.
- Could only work during a limited window around low tide
- Tide was washing the diesel out of the wreck producing ongoing sheen in tide and sands
- Could not go overland due to cultural resource areas and snowy plovers.

Plan B

- Pump all fuel off into totes
- Fly the totes out by helicopter
- Required consulting with plover and tribal stakeholders

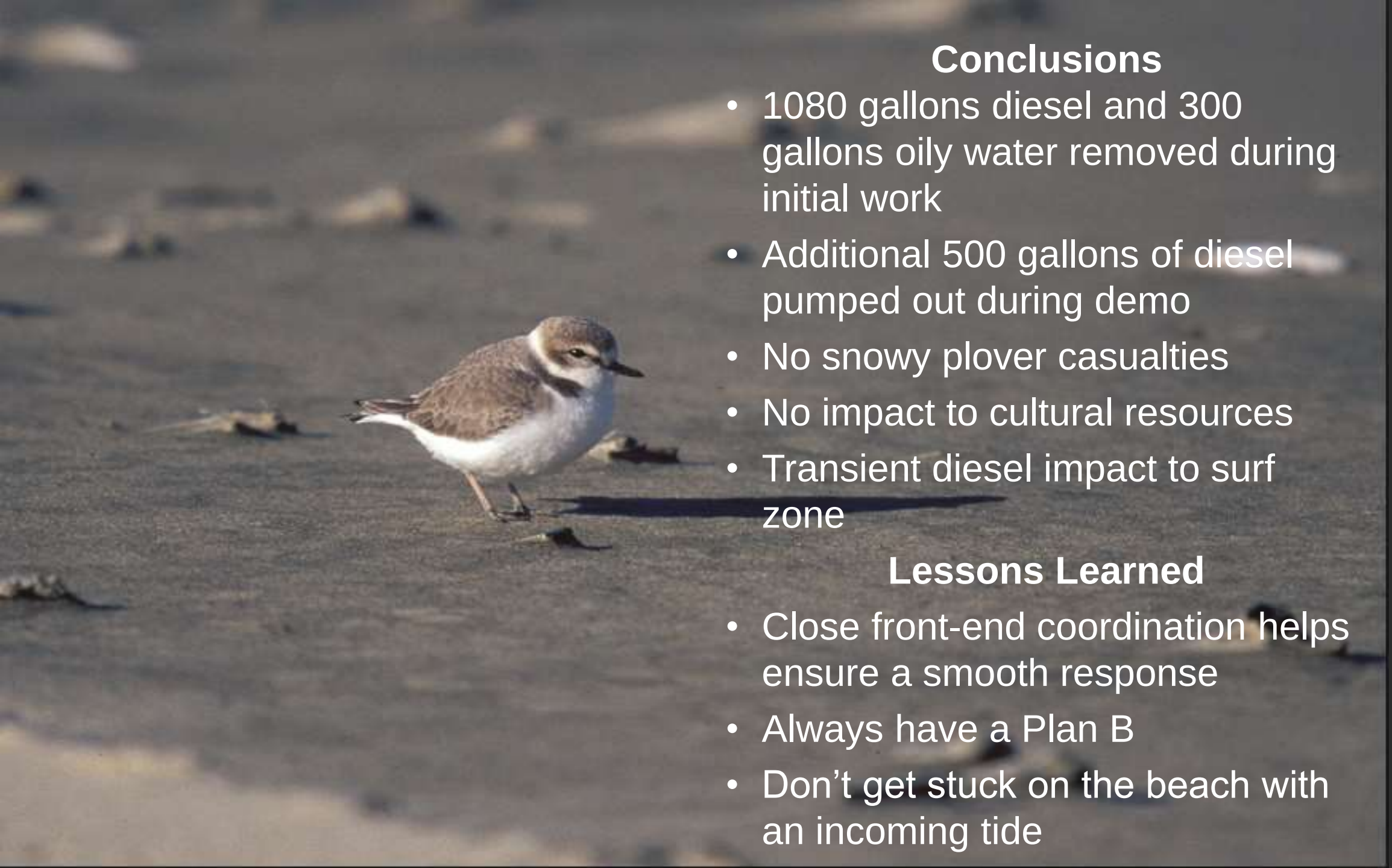
Bell UH-1 Huey Helicopter

4000 lb Payload
With rotor out of Lakeview, OR
1 Pilot, 4 Support Crew


YCDD373

Tote Staging Area at the Cape Blanco Airport

- Fuel collected by Vac Truck the next Day
- Cape Blanco Airport was the second choice for a staging area



Conclusions

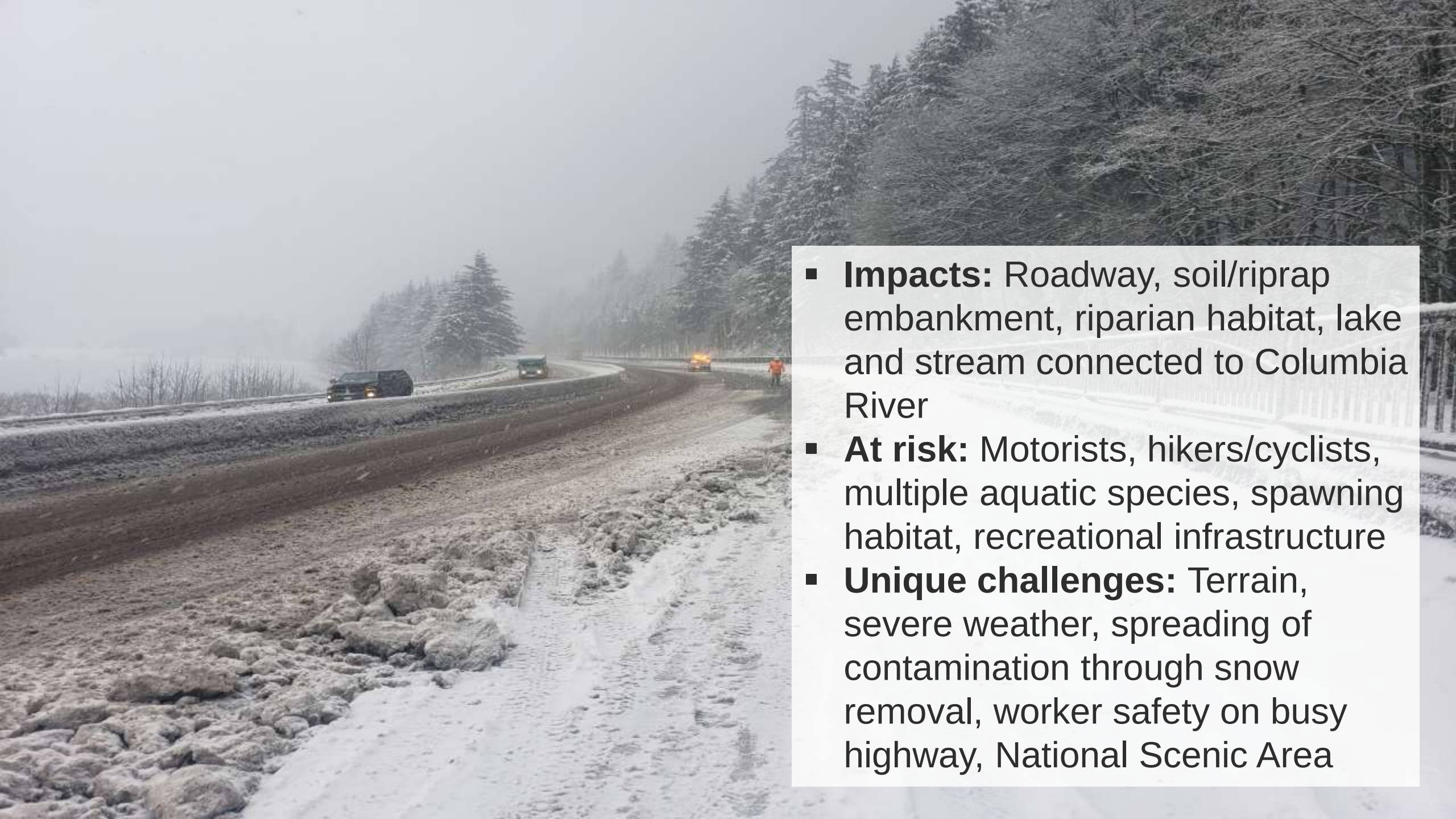
- 1080 gallons diesel and 300 gallons oily water removed during initial work
- Additional 500 gallons of diesel pumped out during demo
- No snowy plover casualties
- No impact to cultural resources
- Transient diesel impact to surf zone

Lessons Learned

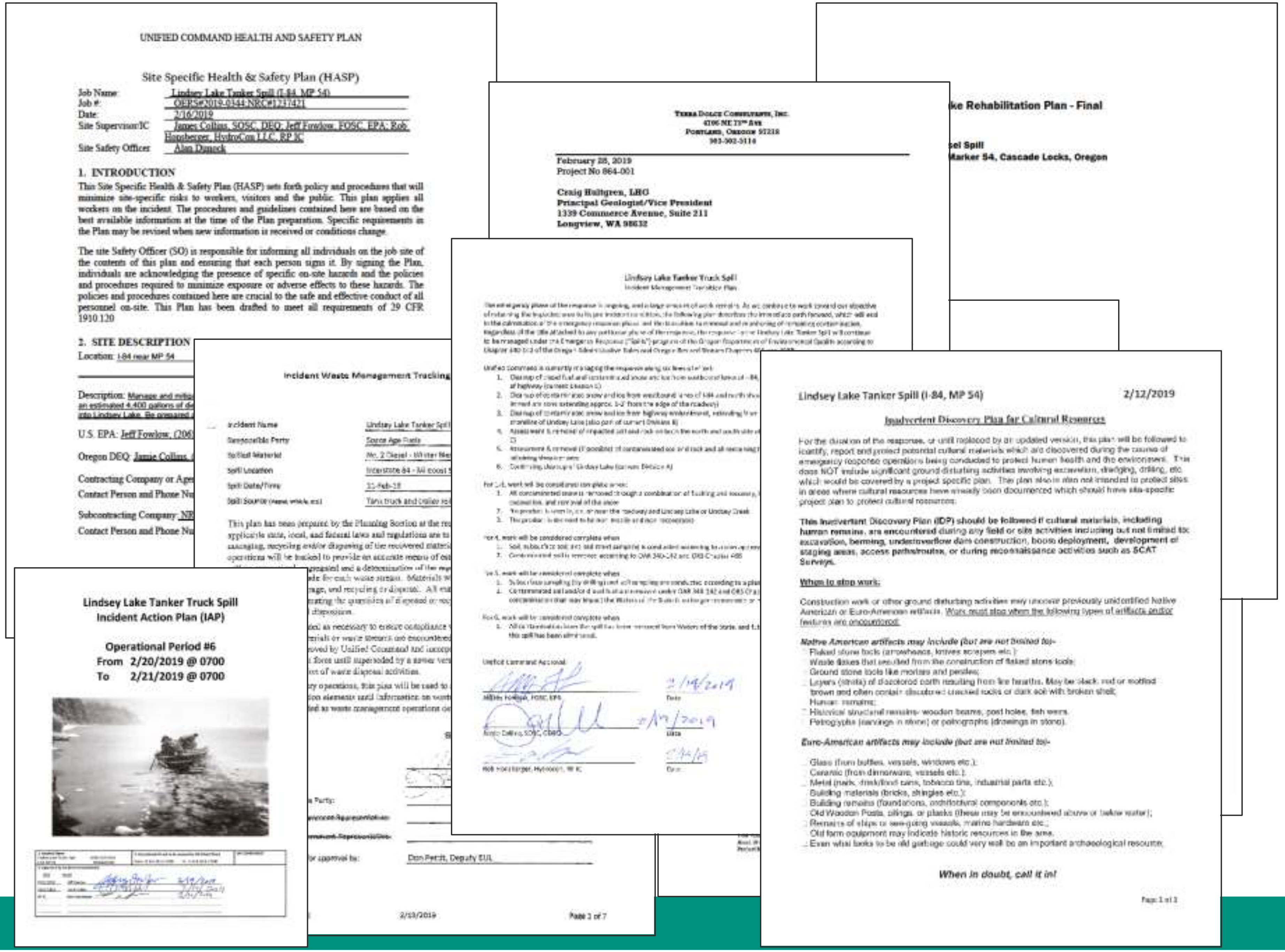
- Close front-end coordination helps ensure a smooth response
- Always have a Plan B
- Don’t get stuck on the beach with an incoming tide

Lindsey Lake Tanker Truck Spill

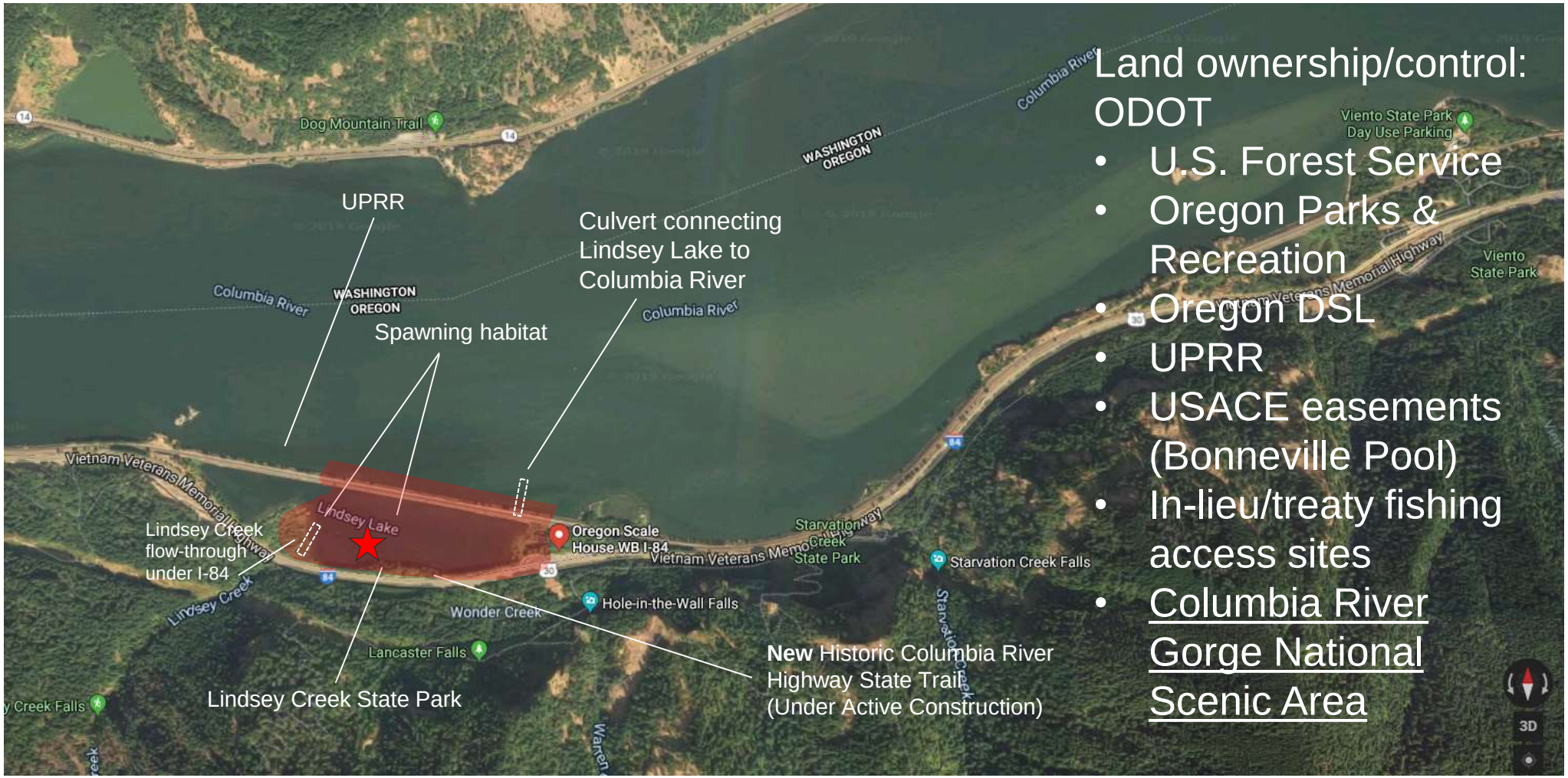
- February 11, 2019
- I-84, eastbound lanes, between Cascade Locks and Hood River
- 4,400 gallons winter blend biodiesel spilled from tanker truck owned by Space Age Fuels



- **Impacts:** Roadway, soil/riprap embankment, riparian habitat, lake and stream connected to Columbia River
- **At risk:** Motorists, hikers/cyclists, multiple aquatic species, spawning habitat, recreational infrastructure
- **Unique challenges:** Terrain, severe weather, spreading of contamination through snow removal, worker safety on busy highway, National Scenic Area


UNIFIED COMMAND HEALTH AND SAFETY PLAN
Site Specific Health & Safety Plan (HASP)
Job Name: Lindsey Lake Tanker Spill (I-84, MP 54)
Job #: OERS#2019-0344-NRC#1237421
Date: 2/16/2019
Site Supervisor/IC: James Collins, SOSC, DEQ; Jeff Fowlow, FOSC, EPA; Rob Hainsberger, HydroCon LLC, RP IC
Site Safety Officer: Alan Dunock
1. INTRODUCTION
This Site Specific Health & Safety Plan (HASP) sets forth policy and procedures that will minimize site-specific risks to workers, visitors and the public. This plan applies all workers on the incident. The procedures and guidelines contained here are based on the best available information at the time of the Plan preparation. Specific requirements in the Plan may be revised when new information is received or conditions change.
The site Safety Officer (SO) is responsible for informing all individuals on the job site of the contents of this plan and ensuring that each person signs it. By signing the Plan, individuals are acknowledging the presence of specific on-site hazards and the policies and procedures required to minimize exposure or adverse effects to these hazards. The policies and procedures contained here are crucial to the safe and effective conduct of all personnel on-site. This Plan has been drafted to meet all requirements of 29 CFR 1910.120
2. SITE DESCRIPTION
Location: I-84 near MP 54
Incident Waste Management Tracking
Incident Name: Lindsey Lake Tanker Spill
Spilled Material: No. 2 Diesel
Spill Date/Time: 11-Feb-19
Spill Source: Tank truck and trailer
Lindsey Lake Tanker Truck Spill
Incident Action Plan (IAP)
Operational Period #6
From 2/20/2019 @ 0700
To 2/21/2019 @ 0700
February 28, 2019
Project No 864-001
Craig Hultgren, LHG
Principal Geologist/Vice President
1339 Commerce Avenue, Suite 211
Longview, WA 98632
Lindsey Lake Tanker Truck Spill
Lindsey Lake Tanker Spill (I-84, MP 54)
2/12/2019
Inadvertent Discovery Plan for Cultural Resources
For the duration of the response, or until replaced by an updated version, this plan will be followed to identify, report and protect potential cultural materials which are discovered during the course of emergency response operations being conducted to protect human health and the environment. This does NOT include significant ground disturbing activities involving excavation, dredging, drilling, etc. which would be covered by a project specific plan. This plan also is also not intended to protect sites in areas where cultural resources have already been documented which should have site-specific project plan to protect cultural resources.
This Inadvertent Discovery Plan (IDP) should be followed if cultural materials, including human remains, are encountered during any field or site activities including but not limited to: excavation, berming, underflow dam construction, boom deployment, development of staging areas, access paths/routes, or during reconnaissance activities such as SCAT Surveys.
When to stop work:
Native American artifacts may include (but are not limited to)-
Euro-American artifacts may include (but are not limited to)-
When in doubt, call it in!
Rehabilitation Plan - Final
Marker 54, Cascade Locks, Oregon
Don Pettit, Deputy EUL

Incident Overview: Lindsey Lake



Land ownership/control:
ODOT

- U.S. Forest Service
- Oregon Parks & Recreation
- Oregon DSL
- UPRR
- USACE easements (Bonneville Pool)
- In-lieu/treaty fishing access sites
- Columbia River Gorge National Scenic Area

Incident Overview: Lindsey Lake

Diesel fuel observed in Lindsey Lake shortly after spill

- Riparian habitat at risk: Lindsey Creek
- Boom placed to protect spawning locations and sensitive vegetation

3,000 feet of hard boom deployed for containment, recovery, and protection

3,000 feet of hard boom deployed for containment, recovery, and protection

Contractors quickly executed Spill Response Strategy B-158.8L in the Bonneville Pool Geographic Response Plan, isolating Lindsey Lake

Enacted GRP Strategy B-158.8L

Incident Overview: Lindsey Lake

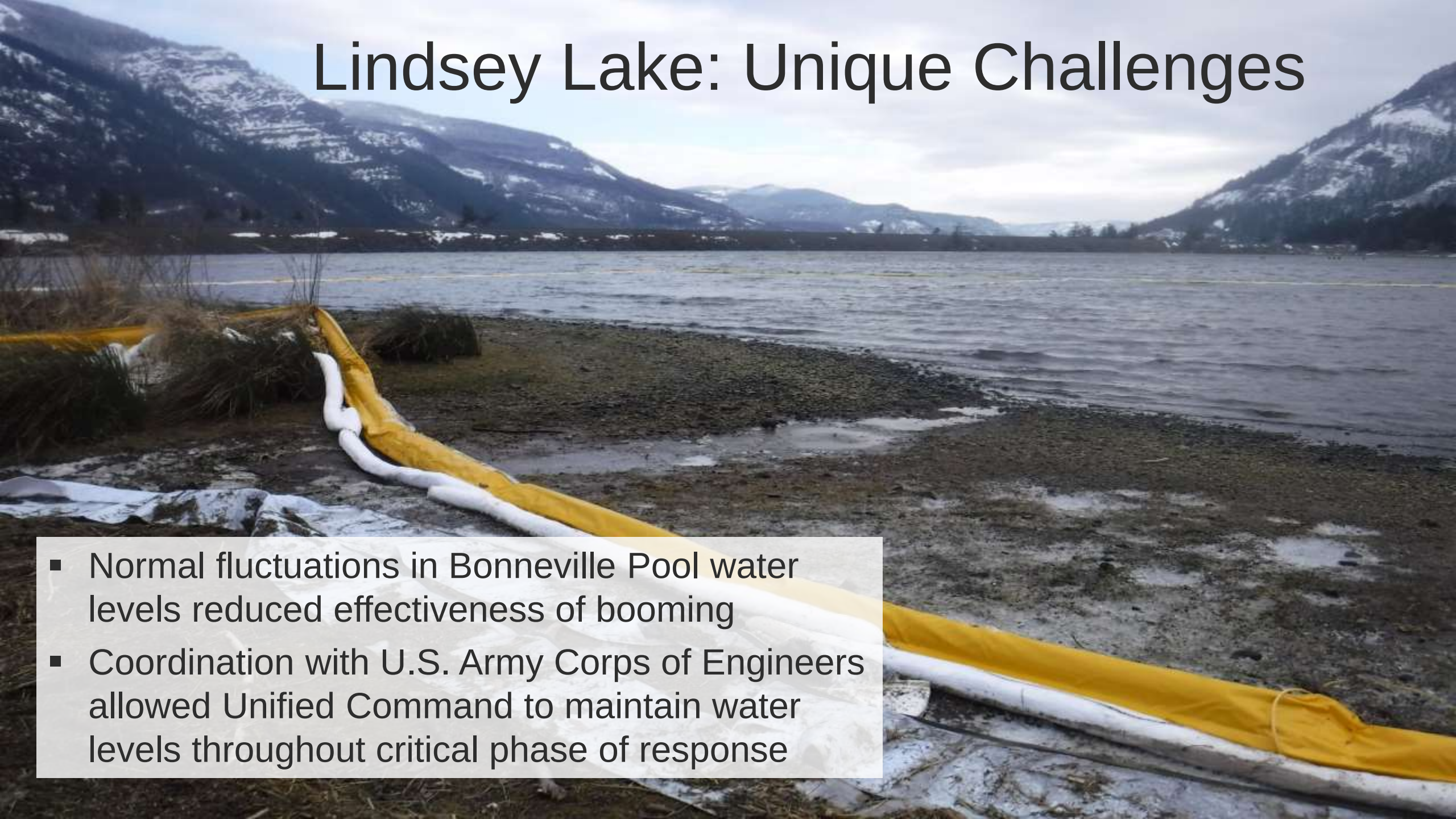
Contaminated snow spread along new scenic trail by ODOT snow removal operations


DO NOT
TRAIL
CLOSED
UNTIL
FURTHER
NOTICE
HAZARDOUS
MATERIALS
CLEAN UP
IN PROGRESS
NO
TRESPASSING

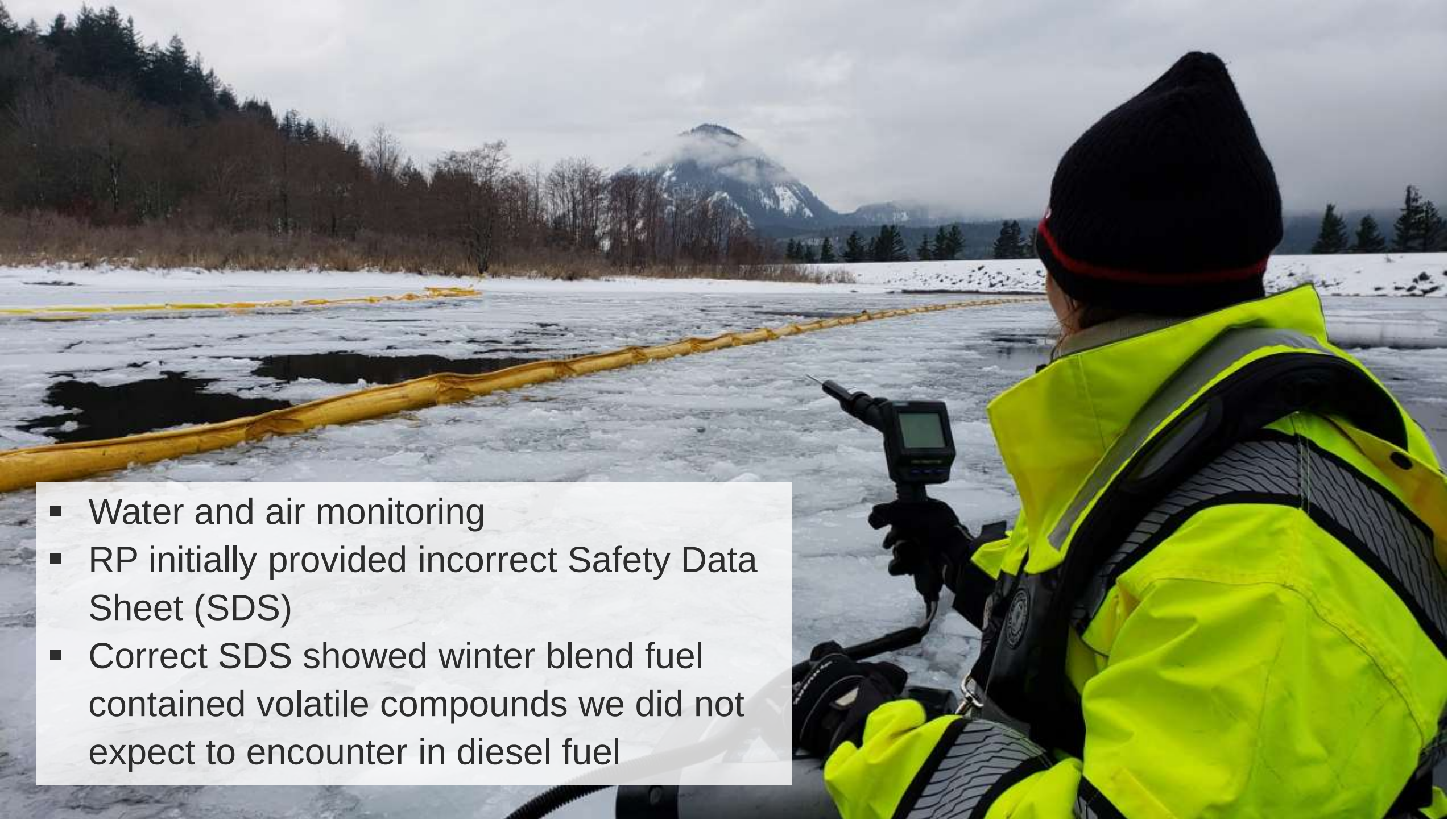

CAT
CAT

- Staging area established at Viento State Park
- Key partnership with Oregon Parks and Recreation Department

Lindsey Lake: Unique Challenges



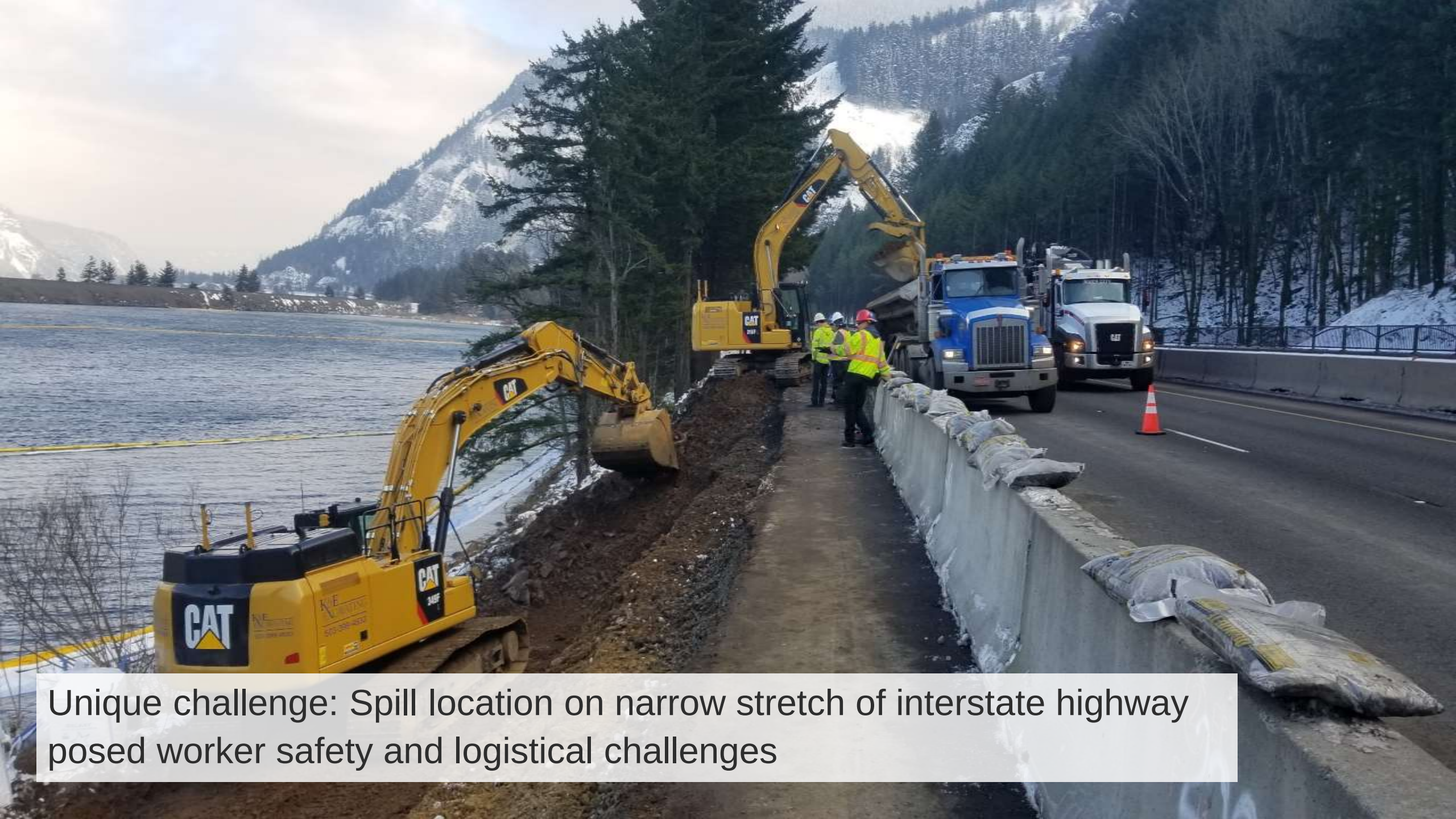
- Normal fluctuations in Bonneville Pool water levels reduced effectiveness of booming
- Coordination with U.S. Army Corps of Engineers allowed Unified Command to maintain water levels throughout critical phase of response



- Water and air monitoring
- RP initially provided incorrect Safety Data Sheet (SDS)
- Correct SDS showed winter blend fuel contained volatile compounds we did not expect to encounter in diesel fuel

Unique challenge: Removal and treatment/disposal of contaminated snow

Unique challenge: Operations in inclement weather and steep terrain



Unique challenge: Spill location on narrow stretch of interstate highway posed worker safety and logistical challenges

Unique challenge: Remediation of severe contamination at Lindsey Creek underpass

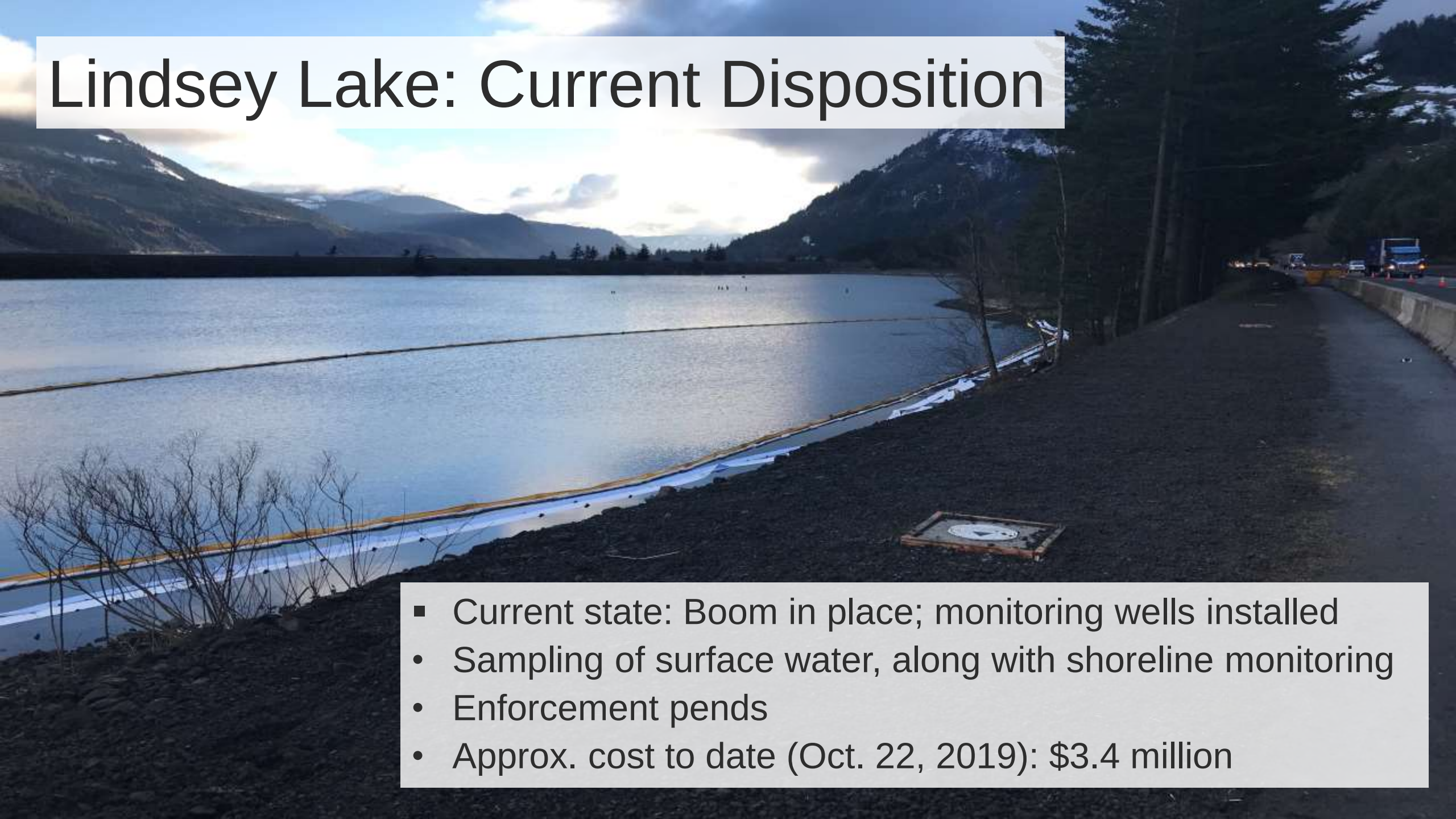
Unique challenge: Remediation of severe contamination at Lindsey Creek underpass

Unique challenge: Operations in active animal habitat

Unique challenge: Collection and removal of sorbent material on adjacent cliff/hillside


Looks like snow, but…

Lindsey Lake: Current Disposition



- Current state: Boom in place; monitoring wells installed
- Sampling of surface water, along with shoreline monitoring
- Enforcement pends
- Approx. cost to date (Oct. 22, 2019): $3.4 million

Current state: Erosion control BMPs in place

Summary: Lindsey Lake

Unique aspects and challenges

- Weather and terrain
- Interstate highway (mobility corridor)
- Overlapping political jurisdictions, including National Scenic Area considerations
- Acute cultural and political concerns
- ODOT snow removal operations spread contamination well beyond initial incident site
  - Increased cost, longer and more complex cleanup

Summary: Lindsey Lake

Positive lessons learned

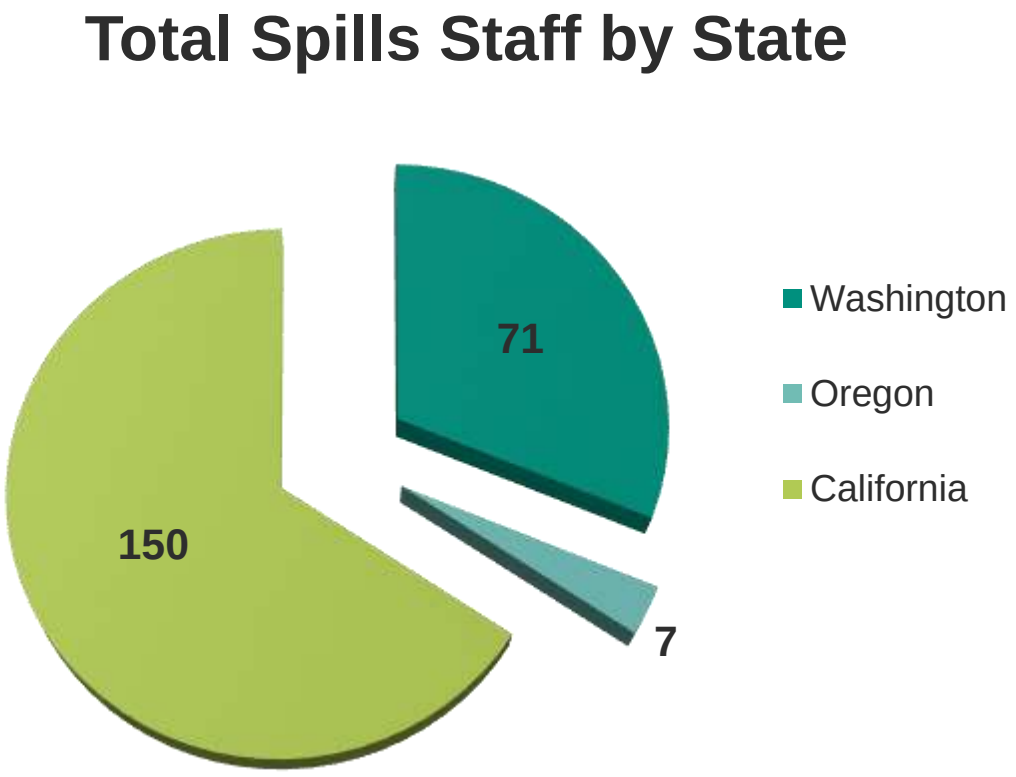
- Talented DEQ team on the ground
- Excellent coordination with EPA in Unified Command
- USFWS, NOAA, USACE, CRITFC were willing and capable partners
- “Backfield” DEQ HQ support was outstanding
- Contract now in place to fund OSP overtime for traffic safety during future incidents

People

Funding Summary

Activity	Revenue Source	Number of Full Time DEQ Employees (FTE)
Oil Spill Planning and Preparedness	Oil Spill Planning Fees (Vessels, Pipelines, Facilities)	4.25
High Hazard Train Routes	Railroad Gross Revenue Fees (ODOT)	2
Response /Cleanup	Cost Recovery	4.5
Four Funds:	Hazardous Substance Remedial Action Fund	
	Petroleum Load Fee/ Highway Fund	
Cleanups with No Responsible Party for Cost Recovery	Hazardous Substance Remedial Action Fund	
Oil Spills with No Responsible Party	Oil Liability Trust Fund	

Comparison of Staffing to Other States



DEQ has approximately 10% of the total spill staff compared to WA and 5% of the staff in CA

Regional On-Scene Coordinators:

- Oregon 3
- Washington 27

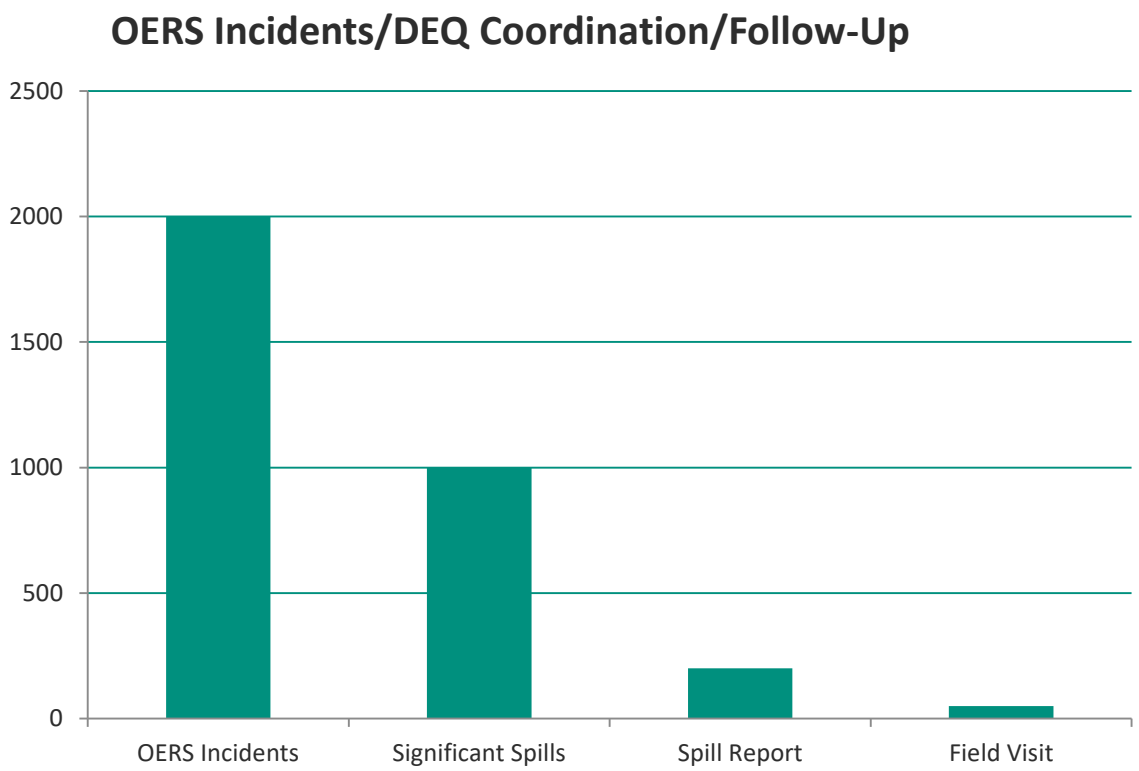
Contingency Planning Staff:

- Oregon about 0.5
- Washington 5

GRP Planning staff:

- WA 4 plus a dedicated GIS team;
- CA 12 plus 3 GIS support staff for coastal GRPs, and 20 plus 5 GIS for inland areas
- OR about 0.2 FTE at present; new resources in 2020

Incidents vs Response Staffing



- DEQ receives approximately 1500-2000 notifications a year
- Of these, approximately 1/2 are significant enough to warrant coordination on response
- Of the significant incidents, DEQ is able to visit approximately 5% or fewer incident sites to verify that appropriate cleanup has occurred
- Limited staffing for response means that DEQ is able to visit only the most significant spills reported

What's Ahead?

Oil Spill Contingency Planning, High Hazard Train Route Planning and Statewide Planning Staff will continue to implement programs and improve in the areas of:

- Working with industry and approving oil spill contingency plans
- Conduct drills and exercises with industry and other partners to improve incident management experience and emergency response operations
- Assist HHTR in the development of oil spill contingency plans and development of geographic response plans (GRPs) along railways
- Conduct full scale exercises with HHTR, State Fire Marshal and local responders
- Bring HHTR rules to the EQC next year

Longer Term

- DEQ increase in response capacity and provide better coordination on All Hazard Incidents
- Increase response capacity in regional offices and provide dedicated and well trained staff
- Rely less on borrowing staff from other programs and taking them away from their core work
- Increase coordination on natural disaster planning and resiliency
- Increase coordination with local responders and Local Emergency Planning Committees
- Improve coordination with Tribes, Federal, State, and Local Agencies for both planning and response activities

Thank You

Emergency Response Program