

JANUARY 13, 2016

Columbia River Gorge Inland Spill of National Significance

Executive Seminar

*Read Ahead Materials
as of January 5, 2016*



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Agenda

COLUMBIA RIVER GORGE INLAND SPILL OF NATIONAL SIGNIFICANCE EXECUTIVE SEMINAR

Ronald Reagan Building, Horizon Ballroom, Washington, DC
Wednesday, January 13, 2016
8:30 am -12:30 pm

- 8:00-8:30 am Registration & Coffee Service
- 8:30-8:50 am **Welcome & Introductions**
- **Welcoming Comments**, *Mr. Stan Meiburg, Acting Deputy Administrator, Environmental Protection Agency*
 - **Principal Attendee Introductions**
 - **Administrative Remarks & Seminar Objectives**, *Ms. Sherry Witt, Facilitator, CSRA*
- 8:50-9:00 am **Inland Spill of National Significance (SONS) Exercise Scenario Briefing**,
Ms. Roberta Runge, National Exercise Coordinator, Environmental Protection Agency
- 9:00-10:10 am **SONS Briefings**
- **Objective 1**: Familiarize agency heads and policy makers with the National Response System (NRS), National Oil and Hazardous Substances Pollution Contingency Plan (NCP), National Response Framework (NRF), Oil Spill Liability Trust Fund (OSLTF), role of the U.S. Army Corps of Engineers (USACE), tribal consultation and coordination, and Natural Resource Damage Assessment (NRDA).
 - **NRS, National Response Team (NRT) Roles & Capabilities**, *Mr. Mike Faulkner, Environmental Protection Agency*
 - **Overview of Federal Doctrine for Oil/Hazmat Incident Response**, *Ms. Jean Schumann, Environmental Protection Agency*
 - **Oil Spill Liability Trust Fund**, *Mr. Bill Grawe, National Pollution Fund Center*
 - **Role of USACE**, *Mr. Ken Duncan, U.S. Army Corps of Engineers*
 - **Tribal Consultation & Coordination Requirements**, *Mr. David Behler, Department of the Interior*
 - **NRDA Overview**, *Mr. Mark Huston, Department of the Interior*
- 10:10-10:25 am Break
- 10:25-10:35 am **NRT Situational Briefing**, *Mr. Reggie Cheatham, Environmental Protection Agency, NRT Chair and Captain Joe Loring, U.S. Coast Guard, NRT Vice-Chair*
- 10:35-11:30 am **Session 1 Discussion: SONS Information & Coordination**

- Objective 2: Define the functions of the NRT and the “Principals level meeting”, to include how each might function during a SONS.
- Objective 3: Evaluate the effectiveness of the process of resolving policy issues that are sent to and received from the White House and other national coordinating bodies during a SONS.

11:30-11:45 am

Break

11:45-12:15 pm

Session 2 Discussion: Strategic Messaging & Alignment

- Objective 4: Evaluate the effectiveness of interagency and private sector coordination and messaging in response to an EPA-managed SONS involving multiple regions, states, tribes, and local jurisdictions.

12:15-12:30 pm

Debrief & Closing Remarks

- Discussion of Key Findings
- Closing Remarks, *Mr. Stan Meiburg*

Inland SONS Exercise Overview

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) defines a Spill of National Significance (SONS) as “a spill that, due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and clean up the discharge.” (40 CFR 300.5)

Since 2002, the Coast Guard’s SONS Exercise and Training Program has included executive-level tabletop exercises and seminars designed to provide senior officials across the federal government with an opportunity to explore and discuss complex policy considerations related to a major oil spill. The 2010 Deepwater Horizon incident highlighted the critical need for increased senior-level participation in future SONS exercises. During the 2014 SONS Executive Seminar, leadership agreed that this year’s exercise would focus on an inland scenario involving a unit train derailment due to significant increases in the volume of crude oil transported over land routes across the country. The location for the scenario is the Columbia River Gorge between Washington and Oregon. The Environmental Protection Agency (EPA) is the lead agency for response to an inland SONS, and thus is the lead planner for this year’s exercise.

SONS Inland Scenario

On April 18, 2016, a major landslide on the Columbia River, approximately 80 miles east of Portland, derails a 100 tank car unit train carrying both Bakken crude oil and diluted bitumen (dilbit). Each rail tank car carrier carries approximately 29,000 gallons. The derailment occurs down river from The Dalles, 44 nautical miles upriver from the Bonneville Dam. The dam will be impacted in three days. Initial reports state that 30 rail cars have derailed and are discharging into the river. Several cars are on fire. There is an evacuation in place for ½ mile. Initial calculations are that 150,000 gallons of crude have been released into the river. There is the potential for 3 million gallons to be released. By April 19, the estimated release is 450,000 gallons. Due to the sensitive ecosystem, disruption to commerce and tourism, impact to tribal treaty rights, medial interest, White House interest, multiple federal, state and tribal jurisdictional boundaries, the EPA Administrator declares a SONS.

Exercise Format

The Columbia River Gorge Inland SONS exercise is comprised of regional, national and Principal-level discussion-based exercises utilizing the same scenario and overarching objectives. Policy level issues that arise from the Regional Response Team (RRT) (regional focus) and National Response Team (NRT) (national focus) exercises will be raised at the Executive Seminar for discussion and resolution.

The 2016 Executive Seminar, Principal-level exercise is scheduled for **Wednesday, January 13, 2016 from 8:30-12:30pm at the Ronald Reagan Building’s Horizon Ballroom in Washington DC**. This 4-hour exercise will drive national-level interagency policy. Expected participation will be senior officials (i.e., flag officers, senior executives, and deputies) within NRT member agencies. As host of the exercise, Acting Deputy Administrator Mr. Stan Meiburg will be in attendance, along with other EPA senior officials.

Executive Seminar Exercise Objectives

The Executive Seminar is designed to meet the following objectives:

1. Familiarize agency heads and policy makers with the National Response System (NRS), National Oil and Hazardous Substances Pollution Contingency Plan (NCP), National Response Framework (NRF), Oil Spill Liability Trust Fund (OSLTF), role of the U.S. Army Corps of Engineers (USACE), tribal consultation and coordination, and Natural Resource Damage Assessment (NRDA).
2. Define the functions of the NRT and the “Principals level meeting”, to include how each might function during a SONS.

3. Evaluate the effectiveness of the process for resolving policy issues that are sent to and received from the White House and other national coordinating bodies during SONS.
4. Evaluate the effectiveness of interagency and private sector coordination and messaging in response to an EPA-managed SONS involving multiple regions, states, tribes and local jurisdictions.

Point of Contact

If you have any questions, please contact Ms. Roberta Runge at (202) 564-1973 or via email at runge.roberta@epa.gov.

Seminar Facilitation Questions

The following are questions that may be asked during the SONS Executive Seminar. These questions were developed by the SONS planning team in preparation for this event.

Define the functions of the National Response Team (NRT) and the “Principals level meeting”, to include how each might function during a SONS.

1. What do you envision as your role during the incident and how is it different than that of your NRT representative?
2. What are the Principal issues that you need to be aware of in the first 24 hours after the incident?
3. How are you communicating and coordinating with your agency representatives on the NRT and other entities involved in the response effort?

Evaluate the effectiveness of the process for resolving policy issues that are sent to and received from the White House and other national coordinating bodies during SONS.

1. What are your agency’s main concerns and how are those concerns coordinated with other senior level coordinating bodies?
2. What is the role of the Domestic Readiness Group (DRG), Deputies Committee (DC) and Principals Committee (PC) for this incident and how is the coordination being conducted to and from the White House?
3. How would your coordination and/or response change if this was an act of terrorism? (This question is asked only if there is time remaining in the seminar.)

Evaluate the effectiveness of interagency and private sector coordination and messaging in response to an EPA-managed SONS involving multiple regions, states, tribes and local jurisdictions.

1. How does the interagency develop a unified message on the response?
2. What are the Principals’ roles in developing messages for the response?
3. How does this communication process meet the requirements for nation-to-nation tribal communication?
4. What is the role of the Responsible Party (RP) in messaging?
5. Should outreach activities occur during the response? Should this be a coordinated interagency process?
6. How can federal agencies coordinate outreach activities to avoid duplication and inconsistencies in messages while at the same time, providing critical fact sheets and other information effectively and efficiently to public?

Other Facilitation Questions

1. How would you ensure that your staff and the incoming Principal of your agency are prepared to respond to a SONS?
2. If the oil impacts the Bonneville Dam, what are the Principals’ concerns considering the electrical grid?

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Executive Seminar Participants (as of 1/4/2016)

AGENCY	PRINCIPAL ATTENDEE	ADVISORS TO THE PRINCIPAL ATTENDEE
EPA	<p>Mr. Stan Meiburg, Acting Deputy Administrator</p> <p>Mr. Mathy Stanislaus, Assistant Administrator, Office of Land and Emergency Management</p>	<p>Mr. Nitin Natarajan, Deputy Assistant Administrator, Office of Land and Emergency Management</p> <p>Ms. Michelle Pirzadeh, EPA Region 10 Deputy Regional Administrator</p> <p>Mr. Reggie Cheatham, National Response Team Chair, Director, Office of Emergency Management</p> <p>Mr. David Kling, Director, Office of Homeland Security</p> <p>Ms. Roberta Runge, National Exercise Coordinator, Office of Emergency Management</p> <p>Mr. Mike Faulkner, National Response Team Executive Director, Office of Emergency Management</p> <p>Ms. Jean Schumann, Office of Emergency Management</p> <p>Mr. Chris Field, Region 10 Regional Response Team Chair</p>
Coast Guard	<p>RADM Mark Butt, Acting Deputy Commandant for Operations</p>	<p>CAPT Joe Loring, National Response Team Vice Chair; Chief, Office of Marine Environmental Response Policy</p> <p>CAPT Anthony Popiel, Deputy Director of Incident Management and Preparedness Policy</p> <p>CDR James Weaver, Chief, CG-MER-3, Interagency Coordination Division, Office of Marine Environmental Response Policy</p> <p>CAPT Joseph Gleason, Chief, Office of Crisis and Contingency Planning and Exercise Policy</p> <p>LCDR Stacey Crecy, SONS Exercise Coordinator, Office of Marine Environmental Response Policy</p> <p>Ms. Michaela Nobel, Chief of Environmental Law Division, Office of Maritime and International Law</p>
DHS	<p>Mr. Richard Chávez, Director, Operations Coordination</p> <p>Mr. John Havranek, Associate General Counsel, Office of General Council</p>	<p>Ms. Alaina Clark, Deputy Assistant Secretary for Intergovernmental Affairs</p> <p>Mr. Sean Moon, Acting Director, Transportation and Cargo/Trade Policy/Foreign Investment and Transport Security, Office of Policy</p> <p>Mr. Kevin O'Day, Deputy Branch Chief, Office of Operations Coordination</p> <p>Mr. Ben Barillas, Intergovernmental Affairs Coordinator</p> <p>LCDR Michael Cintron, Office of General Counsel</p>
DOC/NOAA	<p>Dr. Holly Bamford, Assistant Administrator, National Oceanic Service</p>	<p>Mr. David Westerholm, Director, Office of Response and Restoration</p> <p>Mr. Scott Lundgren, Chief, Emergency Response Division, Office of Response and Restoration</p>
DOD	<p>Mr. Robert Salesses, Deputy Assistant Secretary of Defense for Homeland Defense Integration and Defense Support of Civil Authorities (DSCA)</p> <p>Mr. John Coho, Senior Advisor for Environmental Compliance, USACE</p>	<p>Mr. Matthew Gula, Special Assistant of the Assistant Secretary of Defense for Homeland Defense and Global Security, DSCA</p> <p>Mr. Ken Duncan, Project Manager, Environmental Compliance and Sustainability, USACE Portland District</p>
DOE	<p>Mr. Anthony Gipson, Acting Associate Administrator for the Office of Emergency Operations</p>	<p>Mr. Thomas Roston, Senior Advisor for Emergency Management Integration, National Nuclear Security Administration</p>
DOI	<p>Ms. Kristen Sarri, Principal Deputy Assistant Secretary, Policy</p>	<p>Ms. Mary Josie Blanchard, Deputy Director, Office of Environmental Policy and Compliance (OPEC)</p>

AGENCY	PRINCIPAL ATTENDEE	ADVISORS TO THE PRINCIPAL ATTENDEE
	Management & Budget Ms. Lori Faeth, Deputy Assistant Secretary, Policy & International Affairs	Mr. David Behler, Team Leader, Resource Protection, Preparedness and Response Team, OPEC Mr. Mark Huston, Deputy Director, Office of Restoration & Damage Assessment
DOJ	TBD	TBD
DOL	Ms. Amanda Edens, Director, OSHA Directorate of Technical Support and Emergency Management	Ms. Denise Matthews, Director, OSHA Office of Emergency Management and Preparedness Mr. Young Wheeler, Occupational Safety and Health Specialist
DOS	N/A	LCDR Jon Burby, Coast Guard Liaison, Office of Ocean and Polar Affairs
DOT	Ms. Sarah Feinberg, Administrator of the Federal Railroad Administration	Mr. David Lehman, Director, Emergency Support and Security, Pipeline and Hazardous Materials Safety Administration (PHMSA) Ms. Donna O'Berry, Deputy Director, Office of Intelligence, Security and Emergency Response Mr. Brian Marko, Deputy Program Manager, Office of Intelligence, Security and Emergency Response CAPT Kirsten Martin, Senior Maritime Safety & Security Advisor, Office the Secretary Mr. Eddie Murphy, Specialist, Emergency Support and Security, PHMSA Mr. Kevin Tokarski, Associate Administrator for Strategic Sealift, Maritime Administration Mr. Bill Schoonover, Deputy Associate Administrator - Hazardous Materials Field Operations, PHMSA
FEMA	Mr. Damon Penn, Assistant Administrator for Response	TBD Mr. Chad Payeur, FEMA National Exercise Division Mr. Duane Keel, FEMA National Exercise Division
GSA	Mr. Brett Armstrong, Deputy Associate Administrator, Office of Mission Assurance	Ms. Carol Hall, GSA Liaison to FEMA
HHS	Dr. Nicole Lurie, Assistant Secretary for Preparedness and Response, Department of Health and Human Services	RADM Scott Deitchman, Associate Director for Environmental Health Emergencies, National Center for Environmental Health and Agency for Toxic Substances and Disease Registry (ATSDR) CAPT Hugh Mainzer, Deputy Associate Director, National Center for Environmental Health/ ATSDR Dr. James Holler, ATSDR
NPFC	Mr. Bill Grawe, Director, National Pollution Funds Center	Mr. Tim Eastman, Chief, Case Management Division Mr. Tom VanHorn, Chief, Legal Division Mr. Jim Hoff, Senior Staff Attorney Mr. Greg Buie, Western Regional Manager
NSC Staff	RDML Peter Gautier, Senior Director for Response Policy	TBD
USDA	Mr. Malcom Shorter, Deputy Assistant Secretary for Administration	Mr. Scott Linksy, Division Chief, Continuity and Planning Ms. Karen Waldvogel, Environmental Management Division

Inland SONS Exercise Scenario

***** This is an Exercise *****

Background

Crude-by-rail transport continues to expand in the Pacific Northwest. Crude oil rail terminals in Washington State currently receive around 21.8 unit trains per day or as much as 1.8 million barrels (bbls) of oil. When expanded, the Tesoro/Savage terminal in the Port of Vancouver, Washington will process as many as eight additional unit trains per day of crude oil from the Bakken Region or imported tar sands oil from Canada. Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) railroads running through the Columbia River Gorge are important crude-by-rail routes for the region.

Scenario

On April 18, 2016, a major landslide occurs along the Columbia River Gorge east of Portland, Oregon that derailed a large unit train of 100 tank cars carrying Bakken crude oil and diluted bitumen (dilbit). Each rail tank car is carrying approximately 29,000 gallons. The derailment occurs near Three Mile Point in Washington just downriver from The Dalles. The incident is approximately 50 nautical miles upriver from the Bonneville Dam. Initial reports state that 30 rail tank cars have derailed; 14 rail tank cars have known breaches and are actively discharging either Bakken crude oil or dilbit. Several of the rail tank cars are on fire. There is an evacuation radius in place for ½ mile from the incident site. I-84 East and Westbound is closed. Traffic is being re-routed along SR-30. The Dalles Bridge (SR-197) is closed. Initial calculations are that approximately 150,000 gallons of oil is being released onto the shoreline or directly into the Columbia River. The unit train's gross cargo of oil totals nearly 3 million gallons. The U.S. Geologic Survey estimates the April flow rate for the Columbia River near The Dalles to be 212,000 cubic feet per second.

Incident site near Three Mile Point, downriver from The Dalles Dam



On the morning of April 19, an aerial overview of the incident shows 24 rail tank cars are damaged and discharging Bakken crude oil and dilbit directly into the Columbia River. Estimates of the amount of oil spilled have increased to approximately 450,000 gallons.

Extensive environmental impacts along the Columbia River Gorge are anticipated. The oil spill may impact these environmentally sensitive areas:

- Little White Salmon National Fish Hatchery
- Bonneville State Park (OR)
- Columbia River Gorge National Scenic Area and additional parts of Gifford Pinchot National Forest (U.S. Forest Service)
- Doug’s Beach State Park (WA)
- Mayer State Park (OR)
- Memaloose State Park (OR)
- Koberg Beach State Park (OR)

If the oil spill is not contained prior to the Bonneville Dam it may impact:

- Steigerwald Lake National Wildlife Refuge (NWR)
- Pierce NWR
- Franz Lake NWR
- Sandy River Delta (a multi-use recreation area managed by the U.S. Forest Service)

Potential impacts may occur to the following environmental resources:

- Threatened and endangered salmon species, including Chinook, Coho, Sockeye, Steelhead, and Bull Trout
- Critical habitat
- Migratory waterfowl
- Water quality
- Wetlands

Potential impacts will occur to Tribal Trust Resources:

- The Columbia River Gorge area is home to four major tribes that share similar languages, cultures, religions, and diets: the Nez Perce Tribe, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Confederated Tribes and Bands of the Yakama Nation.
- In 1855, the tribes each entered into a treaty with the U.S. government. One of the terms of the treaty was that tribes were guaranteed rights to harvest fish in all the tribes’ usual and accustomed areas. This included areas both on and off their reservations.
- The Columbia River Inter-Tribal Fish Commission (CRITFC) now assists the tribes with technical assistance on harvest, hatchery, water management, and fish passage issues. The CRITFC Fisheries Management team helps the tribes coordinate with state and federal agencies to ensure that the tribes receive an equitable share (1/2 of the harvest) of Columbia River salmon.

Potential impacts felt by the local economy will include:

- Recreational activities will be disrupted and curtailed, including boating, fishing, and windsurfing and boating, including Hood River’s internationally renowned windsurfing areas.
- Tourism; sightseeing in the area will be negatively affected.

Response personnel are onsite near the train derailment location. There are over 100 federal, state, local and tribal officials in the Pacific Northwest as well as industry representatives. A shoreline protective boom plan is being developed. Responder safety and health continues to be a concern due to the volatile nature and respiratory hazards associated with Bakken crude oil.

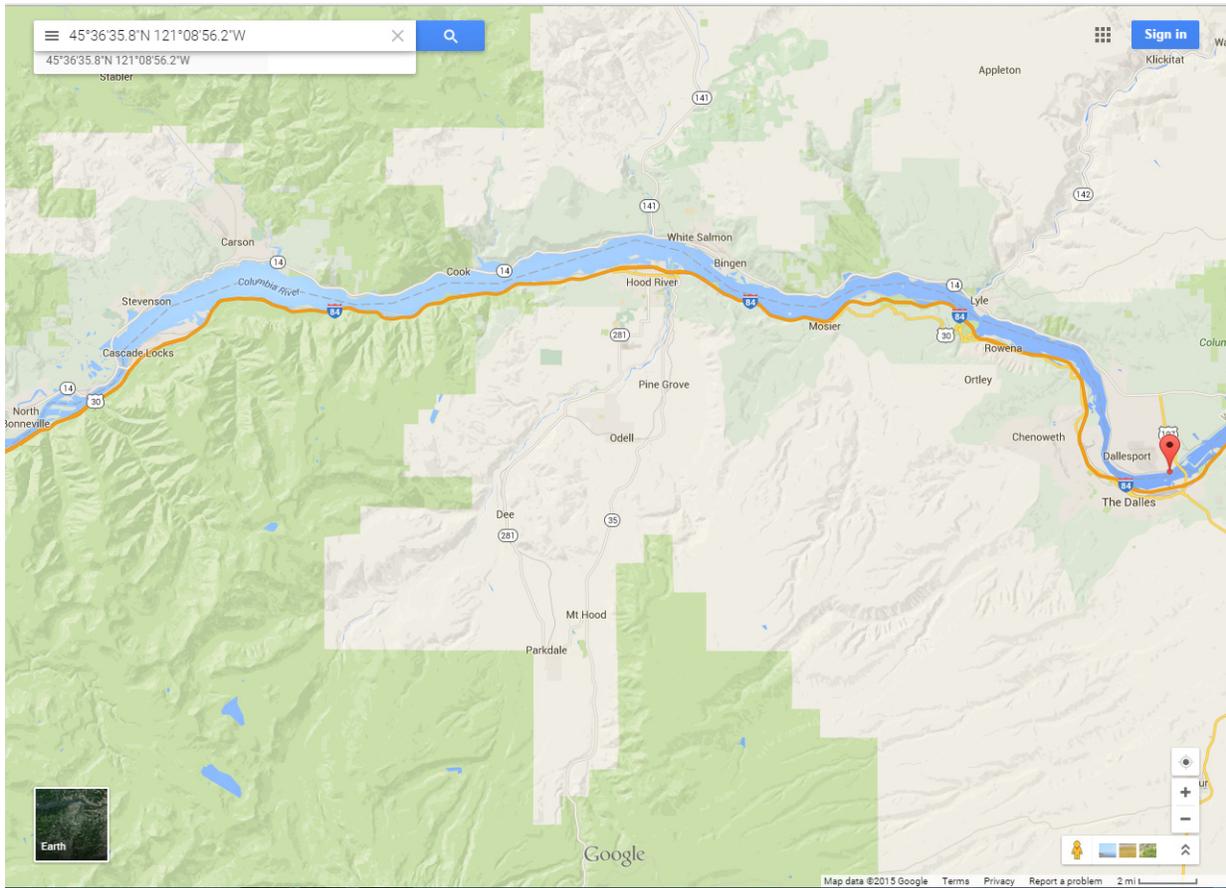
The oil spill is disrupting rail and commercial traffic through the Columbia River transportation corridor.

Initial modelling by NOAA indicates that the oil slick will reach the Bonneville Dam within three days. Locks to all commercial and recreational vessel traffic may need to be closed to reduce the spread of oil. Oil entrained in the turbines in the Bonneville Dam power plant may necessitate a shut down. Oil may impact to the Bonneville Dam fish ladders causing harm to several threatened or endangered salmon species and steelhead populations.

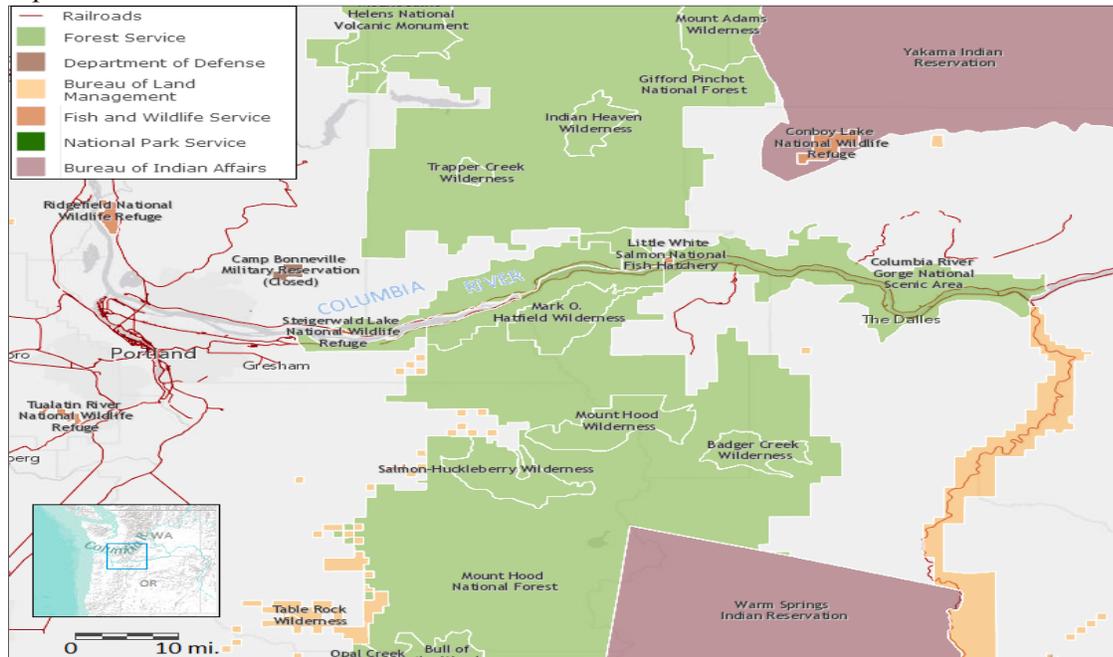


The media interest surrounding the incident is high and the incident is already being covered by national news outlets including CNN, NBC, CBS, and FOX. The White House National Security Council is asking for information on the incident.

Due to the complexity of the spill response and the multiple federal, state and tribal jurisdictional boundaries impacted, the EPA Administrator has declared a Spill of National Significance (SONS) on April 19, 2015 and has designated a Senior Agency Official (SAO).



Impacted Public Lands



SONS Key Terms

Clean Water Act (CWA): The CWA, signed into law in 1972, provides the basic statutory authority for pollution prevention, contingency planning, and response activities for pollutants impacting the waters of the U.S.

Emergency Support Functions (ESFs): ESFs provide the structure for coordinating federal interagency support for a federal response to an incident. They are mechanisms for grouping functions to provide federal support to states and federal-to-federal support, for declared disasters and emergencies.

Federal Interagency Operations Plan (FIOP) Oil/Chemical Incident Annex: The FIOP is a hazard-specific supplement that describes the process and organizational constructs that will be utilized by federal departments and agencies for responding to threats or actual oil spills or chemical release (oil/chemical) incidents. The Oil/Chemical Annex applies to all federal responses to oil/chemical incidents, regardless of size or complexity, and includes accidental and deliberate releases.

Federal On-Scene Coordinator (FOSC): The FOSC directs response efforts and coordinates all efforts at the scene of a discharge or release. Additionally, the FOSC, in conjunction with the other members in a Unified Command, is responsible for the overall management of the incident.

National Incident Commander (NIC) or Senior Agency Official (SAO): The NIC (from USCG) or SAO (from EPA) is responsible for coordinating national level resource and strategic policy with the White House and DHS leadership to support the FOSC.

The National Oil & Hazardous Substances Pollution Contingency Plan (NCP): The NCP is the federal government's blueprint for responding to both oil spills and hazardous substance releases. The NCP is the result of our country's efforts to develop a national response capability and promote overall coordination among the hierarchy of responders and contingency plans. The NCP provides the first comprehensive system of accident reporting, spill containment, and cleanup, and establishes roles and responsibilities of the FOSC, Unified Command, National Response Team, and Regional Response Teams.

National Response Framework (NRF): The NRF establishes a single, comprehensive approach to domestic incident management to prevent, prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies. NRF development was mandated by the Homeland Security Act of 2002 and Homeland Security Presidential Directive-5. The NRF integrates the NCP and other national plans.

National Response Team (NRT): The NRT is a multi-agency body having authority under 40 CFR 300.110 for national oil spill and hazardous substance release strategic planning and coordination. The EPA chairs the NRT and the USCG serves as Vice-Chair. For an inland SONS, the EPA is the Incident-Specific Chair of the NRT. For a coastal SONS, the USCG is the Incident-Specific Chair.

Oil Pollution Act of 1990 (OPA90): OPA was signed into law in 1990 following the *Exxon Valdez* oil spill. OPA90, which amended the CWA, improved the federal government's ability to prevent and provide the money and resources necessary to respond to oil spills. Under OPA90, the owner or operator of a facility from which oil is discharged (responsible party (RP)) is liable for the costs associated with the containment or cleanup of the spill and any damages resulting from the spill.

Oil Spill Liability Trust Fund (OSLTF): Created as a part of OPA90, the OSLTF is administered by the USCG National Pollution Funds Center (NPFC) and can be used to cover removal costs or damages when RP is unknown or refuses to pay. The OSLTF can provide up to \$1 billion for any one oil pollution incident, including up to \$500 million for natural resource damage assessments and restoration (NRDAR). The main uses of OSLTF expenditures are: state access for removal actions; payments to federal, state, and Indian tribe trustees to carry out NRDAR; payment of claims for uncompensated removal costs and damages; and specific appropriations.

Regional Response Teams (RRTs): RRTs are responsible for regional planning and coordination of preparedness and response actions including state, local and tribal representation. EPA and USCG co-chair this group.

Spill of National Significance (SONS): A SONS is a spill that due to its severity, size, location, actual or potential impact on the public health and welfare of the environment, or the response effort, is so complex it requires extraordinary coordination of federal, state, local, tribal, and RP resources to contain and clean up the discharge. The Commandant of the USCG can designate an incident within a coastal zone, or the EPA Administrator within the inland zone, as a SONS if it is anticipated the response effort needed or the threat to public health and welfare requires extraordinary coordination of federal, state, local and tribal governments and RP resources (40 CFR §300.323(a) and 300.5).

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National Response System

The National Response System (NRS) is the government's mechanism for emergency response to discharges of oil and the release of chemicals into the navigable waters or environment of the U.S. and its territories. Initially, the system focused on oil spills and selected hazardous polluting substances discharged into the environment. Since then, legislation has expanded NRS to include hazardous substances and wastes released to all types of media.

NRS is the mechanism for coordinating response actions by all levels of government in support of the Federal On-Scene Coordinator (FOSC). Establishment of the NRS for removal of oil and hazardous substances requires the President to “ensure effective and immediate removal of a discharge” in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This authority has since been delegated to the FOSC. While the NCP requires that the FOSC's efforts be coordinated with other appropriate federal, state, local, and private response agencies, it also requires mutual notification among agencies.

Incident Command System (ICS)/Unified Command (UC)

ICS brings together the functions of the federal government, state/local governments, and the responsible party (RP) to achieve an effective and efficient response, where the FOSC maintains ultimate authority. The emphasis during oil spill response is on coordination and cooperation.

The FOSC, the state and local government representatives, and the RP are all involved with varying degrees of responsibility, regardless of the size and severity of the incident. The FOSC, in every case, retains the authority to direct the spill response, and must direct responses to spills that pose a substantial threat to the public health or welfare of the U.S. In many situations, however, the FOSC may choose to monitor the response effort and provide support and advice where appropriate. But all response actions taken are required to be consistent with the NCP.

The Incident Command position becomes a UC when more than one organization has the authority to respond. This ensures a mutual agreement of all involved parties to make a unified decision that will maximize coordination of response activities and avoid duplication efforts. The UC typically comprises the FOSC, the state On-Scene Coordinator (OSC), and the RP representative.

National Response Center (NRC)

The NRS prompted the creation of the NRC. The primary function of the NRC is to serve as the sole national point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the U.S. and its territories. In addition to gathering and distributing spill data for FOSCs and serving as the communications and operations center for the National Response Team (NRT), the NRC maintains agreements with a variety of federal entities to make additional notifications regarding incidents meeting established trigger criteria.

NRS Network

The NRS functions through a network of interagency and intergovernmental relationships that were formally established and described in the NCP. The NCP establishes two high-level organizations and four special force components described below:

NRT Member Agencies

- Environmental Protection Agency (chair)
- U.S. Coast Guard (vice-chair)
- Department of Agriculture
- Department of Commerce
- Department of Defense
- Department of Energy
- Department of Health & Human Services
- Department of the Interior
- Department of Justice
- Department of Labor
- Department of State
- Department of Transportation
- Federal Emergency Management Agency
- General Services Administration
- Nuclear Regulatory Commission

National Response Team (NRT)

The NRT's membership consists of 15 federal agencies with interest and expertise in various aspects of emergency response to pollution incidents. The NRT is a planning, policy, and coordinating body. It provides national-level policy guidance prior to an incident and does not respond directly to an incident. It can provide assistance to a FOSC during an incident, usually in the form of technical advice or access to additional resources and equipment at the national level.

Regional Response Teams (RRT)

The RRTs are the next organizational level in the NRS. There are 13 RRTs, one for each of the 10 federal regions, plus one each for Alaska, the Caribbean, and the Pacific Basin (Oceania). Each team maintains a Regional Contingency Plan (RCP) and both the state and federal

governments are represented. The RRTs are primarily planning, training, policy, and coordinating bodies. They provide guidance to FOSCs through the RCPs and work to locate assistance requested by the FOSC during an incident. RRTs may also provide assistance to state and local governments in preparing, planning or training for emergency response.

■ ***Planning***

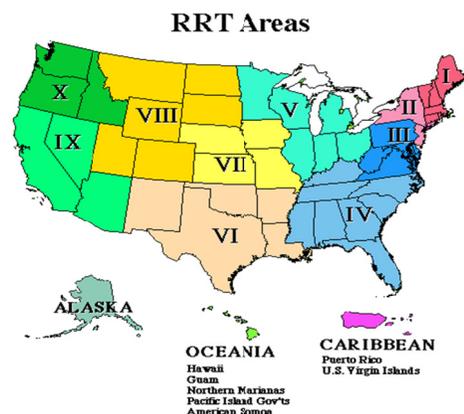
Each RRT develops an RCP to ensure that the roles of federal and state agencies during an actual incident in the region are clear. Following an incident, the RRT reviews the OSCs' reports to identify problems with the region's response to the incident and improves the plan as necessary.

■ ***Exercises***

Federal agencies that are members of the RRTs provide simulation exercises of regional plans to test the abilities of federal, state, and local agencies to coordinate their emergency response activities. Any major problems identified as a result of these exercises may be addressed and changed in the RCP so the same problems do not arise during an actual incident.

■ ***Resources***

The RRTs identify available resources from each federal agency and state within their regions. Such resources include equipment, guidance, training, and technical expertise for dealing with chemical releases or oil spills. When there are too few resources in a region, the RRT can request assistance from federal or state authorities to ensure that sufficient resources will be available during an incident. This coordination by the RRTs assures that resources are used as effectively as possible, and that no region is lacking what it needs to protect human health and the environment from the effects of a hazardous substance release or oil discharge.

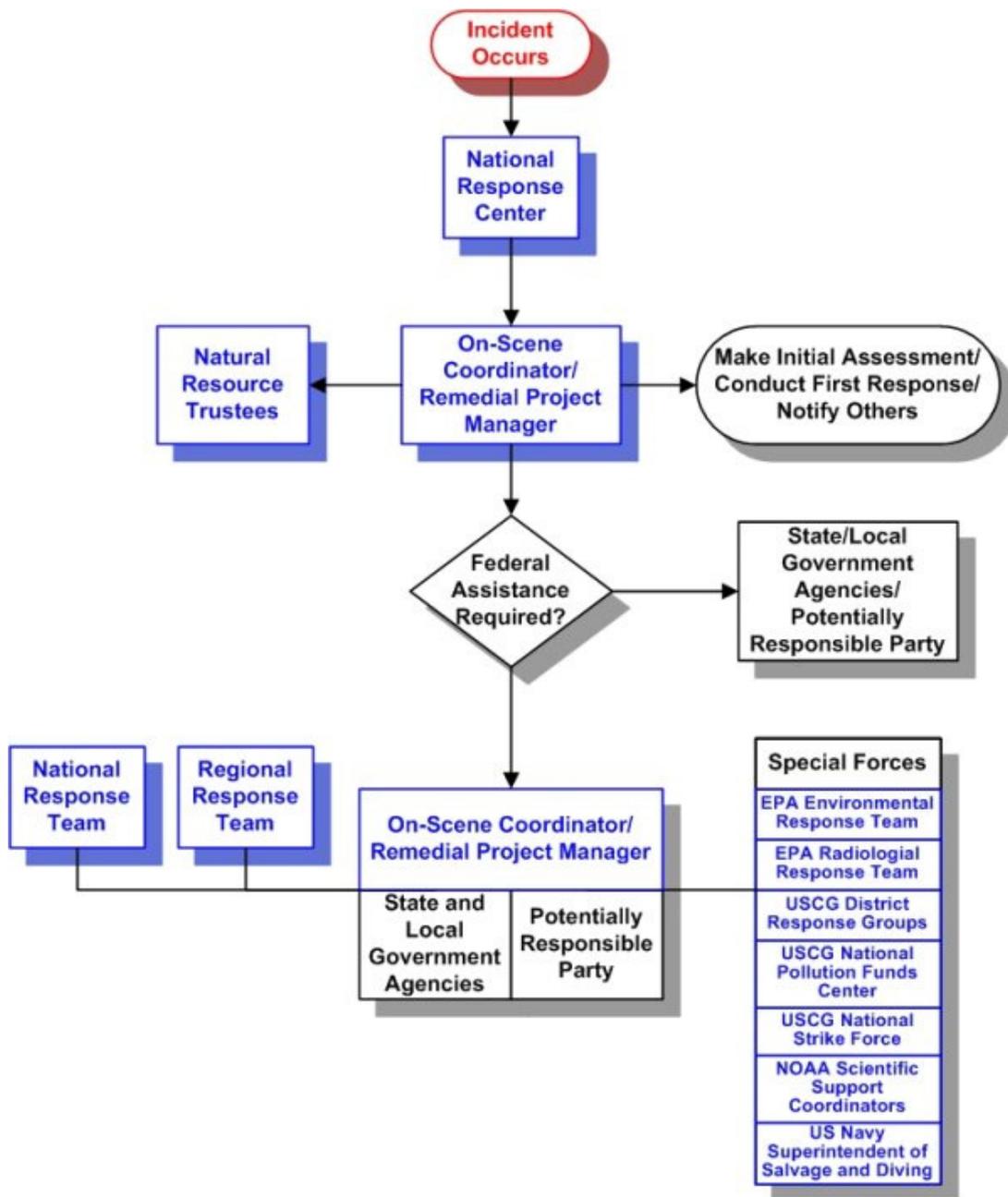


Area Contingency Plans (ACPs)

In addition to the NCP and the RCP, ACPs have been developed. The purpose of these plans is to create a response structure that facilitates the appropriate scale of response to an incident that can take into account specific area conditions.

ACPs are often brought into action when facilities are unable to handle spills on their own. Under the Oil Pollution Act of 1990, EPA established 13 areas covering the U.S. and convened Area Committees comprised of federal, state, and local government agencies to prepare contingency plans for the designated areas. The ACPs include detailed information about resources (such as equipment and trained response personnel) available from the government agencies in the area. They also describe the roles and responsibilities of each responding agency during a spill incident, and how the agencies will respond if called upon in an emergency. These plans also describe how two or more areas might interact, such as when a spill occurs in a river that flows between areas, to assure that a spill is controlled and cleaned up in a timely and safe manner.

NRS Flowchart



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National Oil and Hazardous Substances Pollution Contingency Plan (NCP)

The National Oil and Hazardous Substances Pollution Contingency Plan, more commonly called the National Contingency Plan, or NCP facilitates the federal government's response to both oil discharges and hazardous substance releases in the U.S. and its territories and ensures a national response capability through overall coordination in the event of such spills among the hierarchy of responders and contingency plans.

The NCP describes the basic mechanisms and structures by which the federal government will plan for, prepare for, and respond to oil discharges or hazardous substance releases. The NCP establishes:

- **National Response Team (NRT)**—Plans and coordinates responses to major discharges of oil or hazardous substances, coordinates a national program of preparedness planning and response, and facilitates research to improve response activities. EPA serves as the lead agency within the NRT; and
- **Regional Response Teams (RRTs)**—Coordinate preparedness, planning, and response at the regional level.

Some important operational aspects of the NCP are:

- Establishes the NRT and RRT and its roles and responsibilities in the NRS.
- Requires that oil discharges or hazardous substance releases be reported to the National Response Center (NRC), the central clearinghouse for all pollution incident reporting.
- Establishes general responsibilities of the federal On-Scene Coordinators (OSC) and authorizes the predestinated OSC to direct all federal, state, and private response activities at the site of a discharge.
- Establishes the unified command structure for managing responses.
- Designates the lead agency to be either EPA or the USCG, depending on the location of the spill.
- Identifies the responsibilities for federal agencies that may assist during a response.
- Defines the objectives, authorities, and scope of federal contingency plans, to include the NCP, RCPs, and ACPs.

Oil Spill Response

For oil removals, the NCP establishes the national priorities and pattern for responding to such spills. Under the plan, the OSC:

- Defines national priorities for response.
- Determines whether a spill poses a substantial threat to the public health or welfare, and if so directs all federal, state, and private response and recovery actions.
- Provides a general pattern of response by the OSC.
- Enlists the support of other federal agencies or special teams.
- Establishes special considerations to spills of national significance (SONS).
- In the event of a worst-case discharge, the National Strike Force Coordination Center coordinates the acquisition of needed response personnel and equipment.
- Defines criteria to utilize the Oil Spill Liability Trust Fund (OSLTF) to fund the response.
- Defines the responsible party is liable for federal removal costs and damages.

Overview of Federal Doctrine for Oil/Hazmat Incident Response

Presidential Policy Directive (PPD)-8: National Preparedness, March 30, 2011, established a comprehensive planning system for domestic incident management. The system includes:

National Response Framework (NRF)	<ul style="list-style-type: none"> ▪ High-level overview of “whole community” response, recognizing a variety of federal response authorities
14 Emergency Support Functions (ESFs)	<ul style="list-style-type: none"> ▪ Annexes to the NRF, and each of the 14 ESFs represents a different type of federal support that can be provided
Response Federal Interagency Operational Plan (FIOP)	<ul style="list-style-type: none"> ▪ Detailed federal operations plan supporting the NRF, focused primarily on a generic catastrophic Stafford Act response scenario
FIOP Incident Annexes	<ul style="list-style-type: none"> ▪ Annexes to Response (and Recovery) FIOPs that provide more detailed information on federal response (and recovery) for specific incident types, including an <i>Oil/Chemical Incident Annex</i>

Oil/Chemical Incident Annex presents three major federal response approaches for oil/hazmat incidents:

National Contingency Plan (NCP) - Authorizing laws are Clean Water Act/Oil Pollution Act of 1990 and Comprehensive Environmental Response, Compensation, and Liability Act (aka Superfund)	<ul style="list-style-type: none"> ▪ Lead agency: EPA or USCG ▪ Federal government makes independent evaluation of need for response ▪ Federal government has on-scene command authority ▪ Federal government may, and sometimes must, lead the response ▪ Assistance from other federal agencies provided by NCP Regional Response Teams and/or National Response Team
NCP with ESF Support	<ul style="list-style-type: none"> ▪ As above, but FEMA may provide additional federal support to NCP lead agency by activating needed ESFs
Stafford Act	<ul style="list-style-type: none"> ▪ Lead agency: FEMA ▪ State/tribe requests federal support ▪ Federal government role is to support states/tribes ▪ Assistance from other federal agencies provided by FEMA activating needed ESFs, and some agencies may also respond under their own authorities

Oil Spill Liability Trust Fund (OSLTF)

Funding an Oil Spill

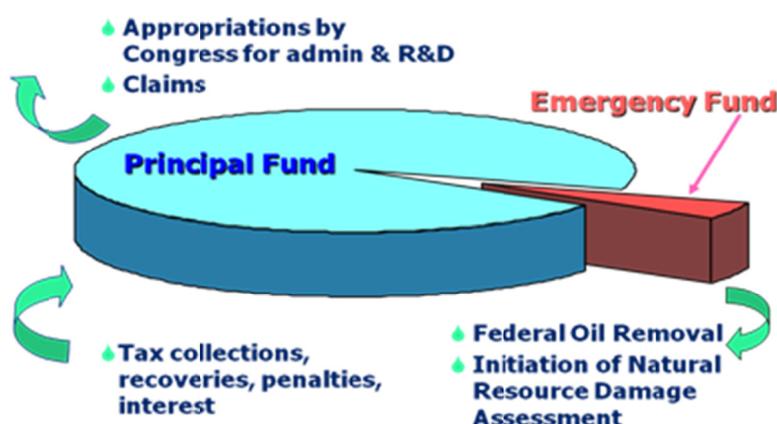
The History of the OSLTF

In August 1990, when President George H. W. Bush signed the Oil Pollution Act of 1990 (OPA) into law and authorized use of the Oil Spill Liability Trust Fund (OSLTF or Fund), the Fund was already four years old. Congress created the Fund in 1986, but did not pass legislation to authorize the use of the money or the collection of revenue to maintain it. Only after the 1989 *T/V EXXON VALDEZ* oil spill and the passage of OPA, was authorization granted. The Coast Guard National Pollution Funds Center (NPFC) manages use of the OSLTF.

Structure, Sources of Revenue, and Uses of the OSLTF

OSLTF Structure

The OSLTF has two major components: the Principal Fund and the Emergency Fund, as shown below:



Revenue Sources

The OSLTF has several sources of revenue including:

- **Barrel Tax**—The largest source of revenue has been a per barrel tax, collected on petroleum produced in, or imported to, the United States. The original 5-cent per barrel tax was suspended in 1994 but was reinstated in 2006 by the Energy Policy Act. Since then, the tax was increased to 8-cents per barrel and will be raised to 9-cents per barrel in 2017 before ending on December 31, 2017.
- **Cost Recoveries**—Responsible parties (RPs) for oil spills are liable for costs and damages. NPFC bills RPs for costs expended and amounts collected are deposited into the Fund.
- **Penalties**—In addition to paying for clean-up costs, RPs may incur fines and civil penalties under OPA, the Federal Water Pollution Control Act, the Deepwater Port Act, and the Trans-Alaska Pipeline Authorization Act.
- **Interest**—Another recurring source of OSLTF revenue is the interest on the Fund principal from U.S. Treasury investments.

Uses of the Fund

OSLTF uses are delineated by OPA section 1012 and include:

- Removal costs incurred by USCG and EPA Federal On-Scene Coordinators (FOSCs)

- Payments to federal, state, and Indian tribe trustees to conduct Natural Resource Damage Assessments (NRDAs) and restorations
- Payment of claims for uncompensated removal costs and damages
- Several federal organizations receive annual appropriations from the OSLTF to cover certain administrative, operational, personnel, enforcement, and R&D costs

The Emergency Fund is available for FOSCs to respond to oil discharges into the navigable waters, adjoining shorelines, and the Exclusive Economic Zone of the U.S. and to prevent or mitigate the substantial threat of such a discharge. It is also available for federal natural resource trustees to initiate NRDAs. To ensure rapid, effective response to oil spills, OPA section 6002 provides that the President has the authority to make available from the OSLTF, without further appropriation, up to \$50 million each year for these activities. Funds not used in a fiscal year are carried over to subsequent fiscal years and remain available until expended. To the extent that \$50 million is inadequate, authority was granted under the Maritime Transportation Security Act of 2002 to advance up to \$100 million from the OSLTF to fund removal activities.

The Principal Fund is used to pay claims and to fund appropriations by Congress to administer the provisions of OPA. OPA provides that any person or government may present a claim for compensation for removal costs or damages resulting from an oil pollution incident covered by the Act. Generally, claims must be presented to the RP before they can be presented to the OSLTF. If the RP does not settle a claim within 90 days, the claimant may sue in court or submit the claim to the NPFC for adjudication. One exception to this is that state governments may submit claims for uncompensated removal costs directly to the NPFC. The types of claims that can be presented include:

- Uncompensated removal costs
- Natural resource damages
- Damage to real or personal property
- Loss of profits and earning capacity
- Loss of subsistence use of natural resources
- Loss of government revenues
- Increased cost of public services

Fund Balance

As of December 1, 2015 the OSLTF Emergency Fund balance was \$92.7 million. The overall OSLTF balance as of the October 31, 2015, Treasury Trust Fund Financial Report was \$4.3 billion.

Natural Resource Damage Assessment and Restoration (NRDAR) Overview

The Program's Origin

Hazardous substances are a constant threat to our fish, wildlife, and other natural resources. As a result of concern over the influx of contaminants into the environment, and a wish to ensure that the responsible parties—not the taxpayers—pay for the cleanup and restoration, Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also known as CERCLA or “Superfund”), the Clean Water Act, and the Oil Pollution Act of 1990. These three laws provide trustees the authority to carry out the responsibilities of the Restoration Program.

Entrusting our Natural Resources

As the Nation’s principal conservation agency, the Department of the Interior (DOI) is trustee for most of our nationally owned public lands and natural resources. These include lands such as National Parks, National Wildlife Refuges, and lands managed by the Bureau of Land Management; Indian lands and natural resources held in trust by the federal government; waters managed by the Bureau of Reclamation; and, federally protected plants and animals such as endangered species, migratory birds, and wild horses and burros. The agencies within the Department responsible for the management of trust resources are the Fish and Wildlife Service, Bureau of Indian Affairs, Bureau of Land Management, Bureau of Reclamation, and National Park Service.

Other federal agencies with trust responsibilities for our Nation’s natural resources include the National Oceanic and Atmospheric Administration (NOAA), U.S. Forest Service, Department of Defense, and Department of Energy. Like DOI, they have responsibility for certain lands, waters, and other specified trust resources and most have active restoration programs.

States and Indian tribes also are trustees with the authority to conduct damage assessments and restoration activities on their own behalf. When

there is overlapping trusteeship, trustees benefit from working together.

Restoring the Resources

To fulfill the mission of restoring natural resources that have been injured by oil spills or hazardous substance releases, several steps must be taken. Generally the process works like this:

- Oil is spilled or a hazardous material is released into the environment. Many of these incidents involve discharges into bodies of water—oceans, lakes, and rivers—where the oil or hazardous material has the potential to spread far beyond the original source.
- The source of the discharge is contained by the Coast Guard, the Environmental Protection Agency, a state agency, and/or the responsible party.
- The oil or hazardous material is cleaned up. This can be a fairly straightforward process for a small oil spill where the contained oil can be skimmed off the surface of the water. It can be very complicated when dealing with old mine wastes or hazardous chemicals which have been absorbed into the soil and are contaminating groundwater and surface water.
- Natural resource trustees determine the magnitude of the injuries to natural resources. This can begin during the response and cleanup or afterwards. Generally, however, it cannot be finished until after the cleanup is completed because the full extent of the injuries cannot be determined until then.
- The trustees contact the responsible parties and attempt to reach a settlement for the cost of the restoration, for the loss of the use of the land or resources to the general public, and for the money the trustees spent to assess the damages.

- When the responsible parties agree to do the restoration work themselves, money for restoration is not collected by the trustees. This is called in-kind work.
- If a negotiated settlement cannot be reached, the trustees can take the responsible parties to court. Most cases are settled out of court.
- When a settlement is reached, a restoration plan is developed with public input that specifies the actions necessary to restore the injured resources. Sometimes the responsible party donates land to be restored and protected.
- Finally, the trustees monitor the restoration projects to assure that they continue to be properly operated and to ensure the long-term success of the restoration.
- These actions can be carried out on the lands where the contamination occurred or at an alternate site which, when restored provides a suitable replacement for the injured or lost resource.

When hazardous substances enter the environment, fish, wildlife, and other natural resources can be injured. DOI, along with state, tribal and other federal partners, act as “trustees” for these resources. Trustees seek to identify the natural resources injured and determine the extent of the injuries, recover damages from those responsible, and plan and carry out natural resource restoration activities. These efforts are possible under the Natural Resource Damage Assessment and Restoration Program, the goal of which is to restore natural resources injured by contamination.

*For more information:
www.doi.gov/restoration*

Benefiting the Public

The primary benefit of the NRDAR Program is that injured natural resources can be restored at no cost to the taxpayers. Instead, the parties responsible for the injuries pay for the restoration. Because of this program, people across the country enjoy rivers and lands that are healthy and teeming with fish and wildlife, and public places are safe for recreation and other uses. Through the dedication of DOI and other trustees, and the many other agencies, organizations and individuals committed to caring for the environment, we are making progress toward a cleaner, healthier environment for all living things.



Contaminants from the Yaworski Lagoon Superfund Site, CT adversely affected riverine habitat downstream from the Moosup River. The U.S. Fish and Wildlife Service worked with local partners to remove an antiquated cast iron pipe that crossed the stream, forming a small dam that fish passage. The removal of the pipe reconnects more than 5 miles of riverine habitat, benefiting fish and other aquatic organisms (Photos M. Sperduto, FWS).

Rising Crude Transportation by Rail Factsheet

According to the U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA), the volume of crude oil moving by rail has quadrupled in less than a decade due to increased production. Transportation by rail has increased, and in some cases, single-unit trains of 100 or more cars are used to transport crude oil. PHMSA reports that rail accidents have declined by 43 percent, and incidents involving hazardous materials are down 16 percent in the last 10 years.

PHMSA has been working with government agencies, shippers, first responders and private sector groups to address the hazards associated with the transportation of Bakken crude raw product.

In 2013, an early PHMSA study found that Bakken crude taken from cargo tanks en route to rail loading facilities was not properly classified. Consequently, PHMSA is reinforcing the requirement to properly test, characterize and classify, where appropriate, sufficiently volatile gaseous constituents (such as propane and butane) before and during transportation.¹

Increase in Production

The growth in U.S. crude oil production over the past several years has come largely from onshore basins in which exploration and production companies are most active.

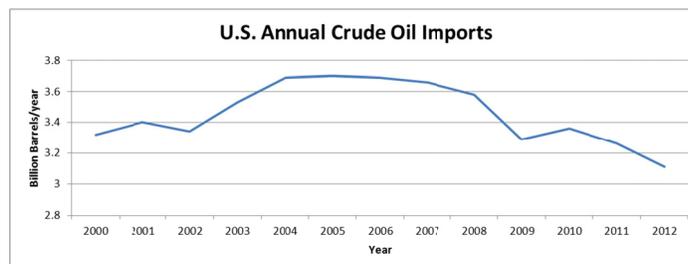
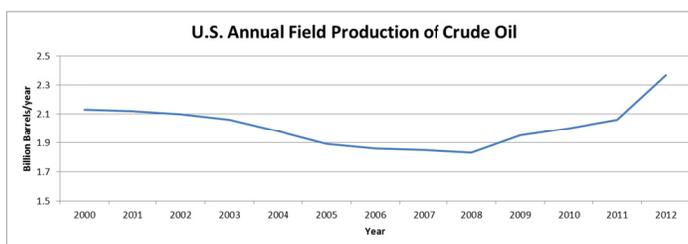
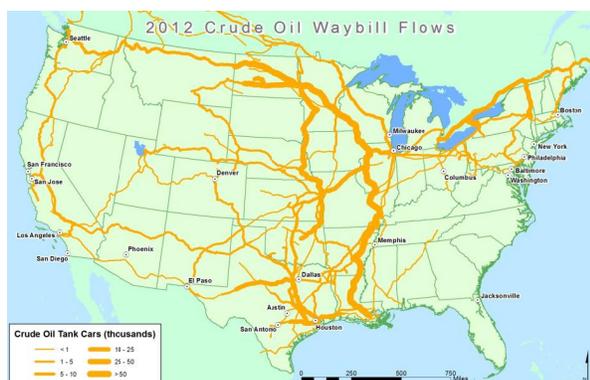
Currently, the most important basins for production growth are:

- The Williston Basin in North Dakota and Montana, which includes the Bakken Formation; and
- The Western Gulf Basin in south Texas, which includes the Eagle Ford Formation.

In 2000, U.S. domestic crude oil production totaled 2.13 billion barrels (bbl) of crude oil.

Domestic production dropped steadily to 1.83 billion bbls in 2008; however, there was a dramatic upswing in production, with the U.S. producing 2.37 billion bbls in 2012.

Meanwhile, in 2000, the U.S. imported 3.3 billion bbls of crude oil, rising to 3.70 billion bbls in 2005; imported crude oil then declined gradually to 3.12 billion bbls in 2012.²



Transport of Oil: Rail vs. Pipeline

There is a huge rush to build infrastructure to handle the crude oil production boom from the Bakken oil fields. Research shows that pipelines are slow and difficult to site and build, as siting and permitting takes a long time; pipelines are expensive to construct; and require significant commitments from stakeholders. With the high cost of pipelines, rail is the natural choice, but

¹ http://www.usfa.fema.gov/downloads/pdf/coffee-break/hm/hm_2014_1.pdf

² Oct 9 2014 SONS ESC Mtg_Inland SONS Exercise Proposal_10-09-2014-FINAL Presentation

safety is a huge concern.

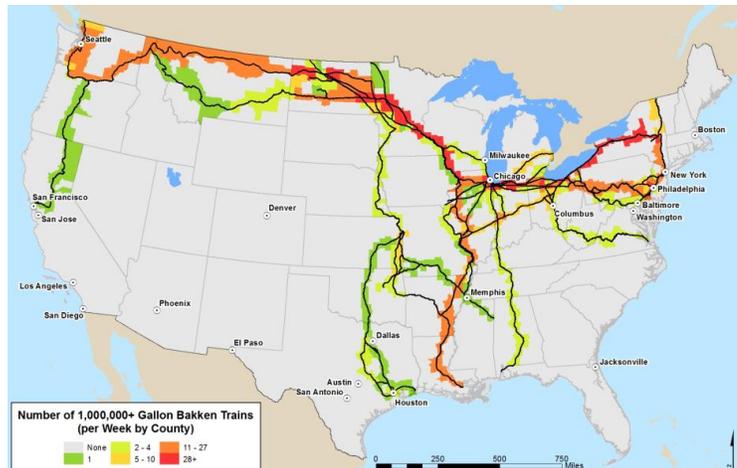
Use of existing railroads can get the oil to market, for example, 500,000-700,000 out of 1 million barrels produced per day in North Dakota (ND) is transported by rail currently. Railroads have flexible source and delivery options, allowing refineries to have multiple sources. Facilities are being built to improve the loading/offloading capabilities for rail transport.

West Coast refineries have relied on imported oil, as the U.S. domestic production boom mostly affects middle states, and Gulf Coast refineries are designed for heavy crude oil (MX and VZ). The East Coast refineries had been in a state of crisis over last 20 years, and 50 percent were shut down due to increase in gasoline imports; however, there is a huge turnaround due to refineries' adapting to growth of domestic crude-by-rail transport. West Coast refineries' are taking the next step in implementing modifications as they have realized that Bakken oil needs to go to refineries on both the East and West Coasts.³

Proposed Rule to Phase Out Older Oil Tank Cars

In July 2014, the federal government proposed a rule that would phase out older tank cars, known as DOT-111s, which carry increasing quantities of crude oil and other hazardous materials. The proposed rule will apply to trains that consist of 20 or more tank cars; trains from the Bakken region transporting Bakken crude oil usually consist of 100 or more tank cars.

Research shows that DOT-111s are easily ruptured or punctured during derailments, resulting in a spill of the tank cars contents. Several options are under consideration for replacement, including tank cars with a thicker outer layer and venting valves and/or fittings designed to prevent a spill during a derailment. Ethanol, which is transported in the same type of tank cars, is included in the proposed rule.



³ Oct 9 2014 SONS ESC Mtg_Inland SONS Exercise Proposal_10-09-2014-FINAL Presentation

Freight Rail Industry Crude-by-Rail Safety Measures



Freight railroads are committed to safely and securely delivering crude oil by rail. Railroads have safely moved this vital energy resource for many years, and as the volume of crude oil moving by rail has increased, railroads have been further improving their safety practices associated with moving crude oil by rail. These actions include:

- **Top-to-Bottom Assessment**—In light of the increased crude oil shipments, railroads this past year have done a top-to-bottom review and voluntarily changed their operating practices and protocols.
- **Higher Standards**—From the selection of routes, to train speeds, to track and equipment inspections, railroads across the board have raised their own standards beyond federal requirements for safely moving crude oil by rail.
- **Better Tank Cars**—Freight railroads are calling on the federal government to require more stringent design standards for tank cars carrying crude oil, as well as retrofit or phase-out older cars.
- **Public Outreach**—Railroads have stepped up their communication with communities through which they operate to address concerns and reinforce preparedness with local first responders.
- **Huge Safety Investments**—Railroads are continuously maintaining and upgrading rail infrastructure and devote enormous resources and effort to preventing and preparing for emergency situations.
- **First Responders Training**—Railroads actively work with state and local emergency response officials to ensure those who need to know what is moving through their area are informed and trained to respond to an emergency situation.

Specific Crude Oil Safety Measures Implemented by Railroads:

- **Increased Track Inspections**—Railroads perform at least one additional internal-rail inspection each year above those required by new Federal Railroad Administration (FRA) regulations on main line routes over which trains moving 20 or more carloads of crude oil travel.
- **Braking Systems**—Railroads are equipping all trains with 20 or more carloads of crude oil with either distributed power or two-way telemetry end-of-train devices. These technologies allow train crews to apply emergency brakes from both ends of the train in order to stop the train faster.
- **Rail Traffic Routing Technology**—Railroads have begun using the Rail Corridor Risk Management System to aid in the determination of the safest and most secure rail routes for trains with 20 or more cars of crude oil.
- **Lower Speeds**—Railroads carrying 20 or more tank cars of crude oil that include at least one older DOT-111 may go no faster than 40 miles-per-hour in 46 federally designated high-threat-urban areas, as established by DHS regulations.
- **Community Relations**—Railroads are working with communities through which crude oil trains move to address location-specific concerns those communities may have.

- **Increased Trackside Safety Technology**—Railroads have begun installing additional wayside wheel bearing detectors along tracks with trains carrying 20 or more crude oil cars, as other safety factors allow. These further help prevent derailments.
- **Increased Emergency Response Training and Tuition Assistance**—Railroads are providing \$5 million to develop specialized crude by rail training and tuition assistance program for local first responders. The funding will provide program development as well as tuition assistance for an estimated 1,500 first responders in the first year.
- **Emergency Response Capability Planning**—Railroads are developing an inventory of emergency response resources and equipment for responding to the release of large amounts of crude oil along routes over which trains with 20 or more cars of crude oil operate.

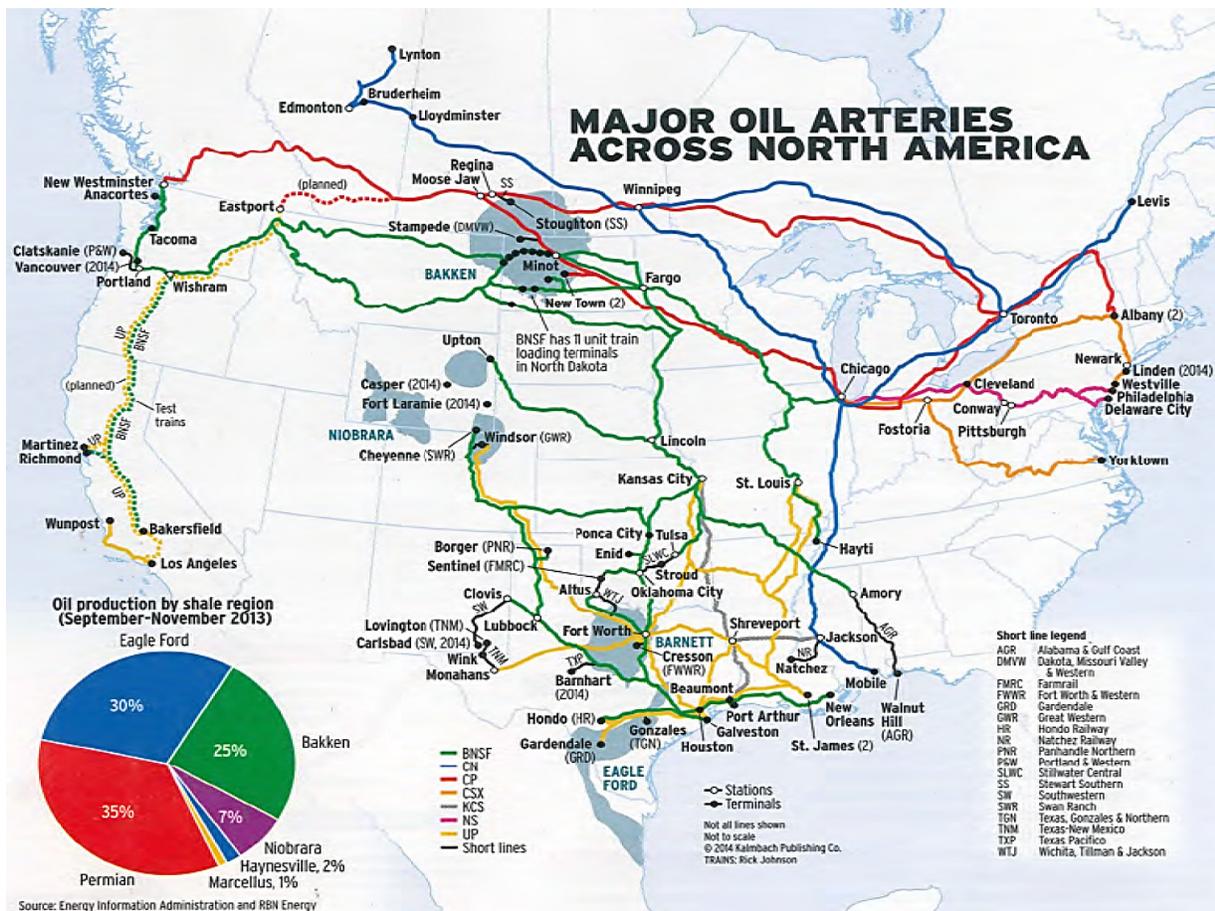
Bakken Crude Oil Factsheet

The Bakken formation occupies about 200,000 square miles and underlies parts of Montana, North Dakota, Saskatchewan and Manitoba. In November 2013, over 10,022 Bakken wells produced 29 million barrels of oil correlating to over 900,000 barrels of oil daily. Growth is expected to continue.



More than two-thirds of crude oil is shipped by rail in unit trains. At the terminus of the rail shipment, oil has to be trucked or loaded onto barges for the final delivery to refineries. Unit trains are comprised of a single commodity throughout the entire train. From 2011 to 2013, there was an exponential increase of almost 2700% in crude oil carloads by rail in Canada. Industry forecast indicate an increasing amount of crude oil will continue to be transported on rail within Canada, or between Canada and the U.S., or from the U.S. through Canada back to the U.S. Each train can carry approximately 60,000 barrels (about 2.5 million gallons) of crude oil.

The map below shows the major transportation corridors for oil across the U.S. and Canada. Although there are pipelines that service certain areas, the infrastructure is not in place to support transport of crude from the Bakken region in sufficient volume, to support current production rates.



Bakken Crude Physical Properties

Bakken oil vaporizes much more quickly than other crude oils. The oil contains more light ends; it is more flammable, and more volatile than other crude oils. It is however important to note that Bakken crude oil composition is a mixture. Not all Bakken crude, or conventional crude, is identical. The composition depends on the area and depth it comes from. In general:

- National Fire Protection Association (NFPA) Flammability = 3-4
 - Sensitive to Static Discharge
- Explosive Limits Variable:
 - Lower Explosive Limit (LEL): 0.4%
 - Upper Explosive Limit (UEL): 15.0%
- Flash Point: - 40°to 212° F

Response to Oil Spill Involving Bakken Crude

If responding to a spill or fire involving Bakken crude, first responders should remember that the product is a Class B flammable or combustible liquid, and they should take all precautions appropriate to the scope and size of the incident. Additionally, hazardous combustion/decomposition products, including hydrogen sulfide and benzene, may be released when Bakken crude is involved in a fire. Response equipment should include:

- Draeger tubes for benzene (detection limit of 0.5-10 ppm)
- MultiRae Pro monitors for VOC's, Oxygen, toxic and combustible gases
- UltraRae 3000 to monitor specifically for benzene
- Personnel sampling pumps with charcoal tubes to evaluate worker exposure

Emergency Order on the Transport of Bakken Crude Oil

The Pipeline and Hazardous Material Safety Administration (PHMSA) and the Federal Railroad Administration (FRA) have issued several safety advisories related to the safe transport of crude oil by rail. In August 2013, PHMSA and FRA launched Operation Classification in the Bakken region to verify that crude oil was being properly classified and announced the first proposed fines associated with an ongoing investigation. Additional activities include unannounced spot inspections, data collection and sampling at strategic locations that transport crude oil.

The Department of Transportation (DOT) issued an Emergency Order in May 2014 to all railroad carriers that transport petroleum crude oil sourced from the Bakken formation. Through this Order, DOT requires that all railroad carriers provide notification to the State Emergency Response Commission for each state in which it operates trains transporting 1,000,000 gallons or more of Bakken crude oil, including the expected movement of those trains. This Order was issued due to recent railroad accidents and subsequent DOT investigations.

DOT also issued an Emergency Order requiring all shippers to test product from the Bakken region to ensure the proper classification of crude oil before it is transported by rail. Shippers who offer crude oil transportation by rail must ensure that the product is properly tested and classified in accordance with federal safety regulations.

Diluted Bitumen Factsheet

Dilbit is the acronym for diluted bitumen. Bitumen is a kind of crude oil found in natural oil sands deposits—it is the heaviest crude oil used today. The oil sands, also known as tar sands, contain a mixture of sand, water and oily bitumen. The tar sands region of Alberta, Canada is the third largest petroleum reserve in the world.

Conventional crude oil is a liquid that can be pumped from underground deposits. It is then shipped by pipeline to refineries where it is processed into gasoline, diesel and other fuels.

Bitumen is too thick to be pumped from the ground or through pipelines. Instead, the heavy tar-like substance must be extracted by injecting steam into the ground. The extracted bitumen has the consistency of peanut butter and requires extra processing before it can be delivered to a refinery.

There are two ways to process the bitumen. Some tar sands producers use on-site upgrading facilities to turn the bitumen into synthetic crude, which is similar to conventional crude oil. Other producers dilute the bitumen. The resulting diluted bitumen, or dilbit, has the consistency of conventional crude and can be pumped through pipelines. The diluents vary depending on the particular type of dilbit being produced. The diluent mixture often includes benzene or naphtha.

Because bitumen makes up 50 to 70 percent of the composition of dilbit, at least 50 percent of the compounds in dilbit are likely to sink in water, compared with less than 10 percent for most conventional crude oils.



Tar Sands (Source: Suncor and Lisa Song, Inside Climate News)

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The Social Vulnerability Index (SVI)

Every community must prepare for and respond to hazardous events, whether a natural disaster like a tornado or disease outbreak, or a human-made event like a harmful chemical spill. A number of factors, including poverty, lack of access to transportation, and crowded housing may weaken a community's ability to prevent human suffering and financial loss in the event of disaster. These factors are known as **social vulnerability**.

Social vulnerability refers to the resilience of communities when confronted by external stresses on human health, stresses such as natural or human-caused disasters, or disease outbreaks. Reducing social vulnerability can decrease both human suffering and economic loss. Agency for Toxic Substances and Disease Registry's (ATSDR's) Social Vulnerability Index (SVI) uses U.S. census variables at tract level to help local officials identify communities that may need support in preparing for hazards, or recovering from disaster.

ATSDR's Geospatial Research, Analysis & Services Program (GRASP) has created a tool to help emergency response planners and public health officials identify and map the communities that will most likely need support before, during, and after a hazardous event. SVI uses U.S. Census data to determine the social vulnerability of every Census tract. Census tracts are subdivisions of counties for which the Census collects statistical data. The SVI ranks each tract on 14 social factors, including poverty, lack of vehicle access, and crowded housing, and groups them into four related themes. Maps of the four themes are shown in the following figure. Each tract receives a separate ranking for each of the four themes, as well as an overall ranking. The SVI can help public health officials and local planners better prepare for and respond to emergency events like hurricanes, disease outbreaks, or exposure to dangerous chemicals. The SVI can be used to:

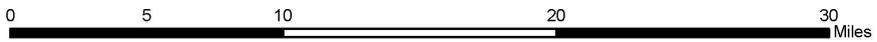
- Estimate the amount of needed supplies like food, water, medicine, and bedding.
- Help decide how many emergency personnel are required to assist people. Identify areas in need of emergency shelters.
- Plan the best way to evacuate people, accounting for those who have special needs, such as people without vehicles, the elderly, or people who do not understand English well.
- Identify communities that will need continued support to recover following an emergency or natural disaster.

The following maps show the total vulnerability by combining all the variables for the Columbia River Gorge Inland Spill of National Significance exercise scenario. For more information about SVI, visit: <http://svi.cdc.gov>.

The Centers for Disease Control and Prevention's (CDC's) *Planning for an Emergency: Strategies for Identifying and Engaging At-Risk Groups* (<http://www.cdc.gov/nceh/hsb/disaster/default.htm>) is a guidance document that provides information to emergency managers on how to identify socially vulnerable or at-risk groups within their communities by focusing on two approaches: (1) the individual approach; and (2) the population approach. This document further discusses the SVI and the visual tool for identifying vulnerabilities. The document also provides approaches and tools to identifying, planning for, and assisting with socially vulnerable and at-risk populations.

EXERCISE SONS EXERCISE

Columbia River Spill SOCIAL VULNERABILITY INDEX (SVI 2010)



Social vulnerability characterizes a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters, such as tornadoes or disease outbreaks, to human-caused threats, such as a toxic chemical spill. The **Social Vulnerability Index (SVI 2010) Map** depicts the vulnerability of communities in the area of interest. The SVI 2010 groups **fourteen census-derived factors** into **four themes**² that summarize the extent to which the area is socially vulnerable to disaster. The factors include economic data as well as data regarding education, family characteristics, housing, language ability, ethnicity, and vehicle access. The map below depicts Total Social Vulnerability by combining all the variables.

Total Social Vulnerability



PRJ 04730 RBYS 10/15/15

Agency for Toxic Substances and Disease Registry
Division of Toxicology and Human Health Sciences



EXERCISE EXERCISE EXERCISE

Tribal Consultation and Coordination Requirements

Each federally recognized tribe is recognized as a sovereign nation, stemming from the treaties signed with the government of the United States of America, as upheld in subsequent judicial decisions. Accordingly, each tribe is entitled to government-to-government tribal consultations with the federal government.

For an inland SONS response, many federal policy directives and statutes need to be followed to uphold the federal government's tribal consultation requirements. Among these are, briefly:

- ***Presidential Memorandum on Government-to-Government Relationship with Indian Tribes*** was issued on April 29, 1994, to reaffirm the federal government's commitment to operate within a government-to-government relationship with federally recognized American Indian and Alaska Native tribes, and to advance self-governance for such tribes. The Presidential Memorandum directs each executive department and agency, to the greatest extent practicable and to the extent permitted by law, to consult with tribal governments prior to taking actions that have substantial direct effects on federally recognized tribal governments. In order to ensure that the rights of sovereign tribal governments are fully respected, all such consultations are to be open and candid so that tribal governments may evaluate for themselves the potential impact of relevant proposals.
- ***Executive Order 13175 – Consultation and Coordination with Indian Tribal Governments*** was signed on November 6, 2000 and directs federal agencies to establish procedures to consult and collaborate with tribal governments when new agency policies or actions have tribal implications. Federal agencies are charged with engaging in consultation and collaboration with Indian tribal governments; strengthening the government-to-government relationship between the United States and Indian tribes; and reducing the imposition of unfunded mandates upon Indian tribes. (Consultation requirement also applies to Alaska Native Corporations.)
- ***Presidential Memorandum on Tribal Consultation*** was signed November 5, 2009 and reinforces Executive Order 13175 to state that executive departments and agencies (agencies) are charged with engaging in regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and are responsible for strengthening the government-to-government relationship between the United States and Indian tribes.
- ***Executive Order 13007 – Access and Use of Sacred Sites*** directs federal agencies to establish procedures to consult and collaborate with tribal governments when new agency policies or actions have tribal implications. Federal agencies are charged with engaging in consultation and collaboration with Indian tribal governments; strengthening the government-to-government relationship between the United States and Indian tribes; and reducing the imposition of unfunded mandates upon Indian tribes. (This consultation requirement also applies to Alaska Native Corporations.)
- ***American Indian Religious Freedom Act (AIRFA)*** protects and preserves the traditional religious rights and cultural practices of American Indians, Eskimos, Aleuts, and Native Hawaiians. These rights include, but are not limited to, access of sacred sites, freedom to worship through ceremonial and traditional rights and use and possession of objects considered sacred. Governmental agencies must accommodate access to and use of religious sites to the extent that the use is practicable and is not inconsistent with an agency's essential functions.
- ***Native American Graves Protection and Repatriation Act (NAGPRA), Section 13*** applies to federal actions (including oil spill response) that affect Native American human remains, funerary objects, sacred objects and items of cultural patrimony on Federal or Tribal lands. NAGPRA requires that Indian tribes, Alaska Native Village, or Native Hawaiian organizations be consulted whenever projects encounter, or are expected to encounter, Native American cultural items or when such items are unexpectedly discovered on federal or tribal lands. The law includes a “cease work” requirement unless a negotiated Plan of Action is in effect.
- ***Archaeological Resources Protection Act (ARPA)*** applies to potential or actual impacts to an archaeological site on federal or Indian lands. For instance, any ground disturbance related to an

incident or the removal of artifacts from a site. The Act defines archeological resources as any material remains of past human life or activities that are of archeological interest and at least 100 years old. It protects archeological sites by: requiring ARPA permits for surveys, archeological investigations, excavation or removal of archeological resources, prohibiting the looting of sites, and establishing site locations as confidential.

- **National Historic Preservation Act (NHPA)** applies to any federal undertaking that has the potential to affect historic properties, including actions on federal or tribal lands, that are federally funded, involve federal staff, or require a federal permit/license. The Advisory Council for Historic Preservation promulgates the Section 106 regulations, provides guidance, and mediation of disagreements during the consultation process between a federal agency, SHPO, THPOs etc. It however, is not an enforcement agency. The National Park Service is the lead agency for the National Register of Historic Places and the National Landmark Program. The NHPA provides for federal agencies to avoid, minimize, or mitigate adverse effects of their undertakings may have, and to take into account the effects of their undertakings on historic properties that are listed in, or eligible for, inclusion in the National Register of Historic Places under Section 106 of the NHPA. Section 110 requires federal agencies to inventory and evaluate resources for their historic significance.

EPA Policy

EPA policy recognizes consultation as *“a process of meaningful communication and coordination between EPA and tribal officials prior to EPA taking actions or implementing decisions that will affect tribes”* and that *“Coordination is sharing information, education, and outreach. Coordination can be part of consultation (but) coordination cannot substitute for consultation”*.

Tribal consultation and coordination during the oil spill response would involve enabling tribal officials to participate in the Unified Area Command. If tribal officials prefer not to participate in the Unified Area Command, this does not extinguish the EPA On-Scene Coordinator’s obligation to conduct tribal consultation and coordination.

Tribal consultation and coordination during the oil spill response should also address issues of importance to the tribes, including the federally mandated protection of:

- **Natural Resources** (e.g., salmon, other T&E species, environmentally sensitive lands, a wide range of plant and wildlife resources, tribal fishing rights and fishing platforms).
- **Cultural Resources** (e.g., sacred sites, archeological sites and resources, tribal fishing rights and fishing platforms, culturally based environmental uses and access).

The Bonneville Lock and Dam Factsheet

The Bonneville Lock and Dam Fact Sheet

Bonneville Dam is located 145 river miles from the mouth of the Columbia River and approximately 40 miles east of Portland, Oregon. It was named for Captain Benjamin Bonneville, a soldier, trader, and explorer. The following lists technical data about Bonneville Lock and Dam to help you compare it to other facilities.



Captain Benjamin Bonneville
1796 - 1878

Location Map Bonneville Dam



Comparing The Powerhouses

	First Powerhouse	Second Powerhouse
Construction:	1933 - 1938 (Phase I) 1938 - 1942 (Phase II) 1940 - 1943 (Phase III)	1972 - 1974 (Preparation) 1974 - 1982
Turbine Generators:	1 = 4,000 KW (1938) 2 = 54,000 KW (Upgraded 2000's) 8 = 60,000 KW (Upgraded 2000's)	2 = 13,500 KW 8 = 76,000 KW
Turbine/ Generator Speed:	75.0 rpm	69.2 rpm
Total Rated Capacity:	592,000 KW	635,000 KW
Generator Voltage:	13,800 volts	13,800 volts
Transmission Voltage:	115,000 volts & 230,000 volts	230,000 volts
Average Turbine Water Discharge:	13,000 cubic feet/second** 96,667 gallons/second**	16,000 cubic feet/second 230,649 gallons/second
Cost of Each Facility:	\$88.4 million ¹	\$664.0 million ²

Total Generation Capacity of Both Facilities: 1,227 Megawatts or 1,227,000 Kilowatts

** This is enough water to fill an average, three bedroom home in one second.

¹ Included Powerhouse I, fish ladders, spillway, and Navigation Lock construction - 1933-1943.

² Included Powerhouse II, visitor complex, and fish facilities construction - 1972-1982.

Turbine Tidbits

We use a special type of turbine called a Kaplan Adjustable Turbine. Many dams use a paddle wheel type of turbine. Ours looks like a propeller with adjustable pitch blades.



US Army Corps
of Engineers®
Portland District

The Spillway Dam

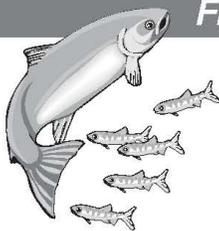
Overall Length:	449.0 meters	1,450 feet
Width of Gravity Section:	41.0 meters	132 feet
Height Above Lowest Bedrock:	61.0 meters	197 feet
Gates	width height	18 @ 15.50 meters 18 @ 18.25 meters
		50 feet 60 feet
Design Capacity:	1,600,000 cubic feet per second	
Pool Elevation:	average minimum maximum	23.3 m MSL* 21.3 m MSL 25.0 m MSL
		76.5 feet MSL 70.0 feet MSL 82.5 feet MSL

* MSL = Mean Sea Level = meters and feet above mean sea level

Navigation Lock

	1938 Lock	1993 Lock
Fill/Empty Time:	20 - 25 minutes to fill 15 - 20 minutes to empty	9 - 13 minutes to fill or empty
Width/Length:	23.18m x 152.5m (76 feet x 500 feet)	26.23m x 206.8m (86 feet x 675 feet)
Lift:	average minimum maximum	average minimum maximum
	18.3m (60 feet) 9.15m (30 feet) 21.35m (70 feet)	18.3m (60 feet) 9.15m (30 feet) 21.35m (70 feet)
Depth Over Sill:	7.38m (24.2 feet)	5.8m (19 feet)
Total Lockages:	2,854 (1992)	2,469 (2012)
Total Tonnage:	8,426,841 metric tons (1992) 9,289,000 short tons (1992)	7,865,337 metric tons (2012) 8,670,050 short tons (2012)

The 1938 lock replaced the Cascades Canal and Lock located a few miles upstream. The 1993 lock replaced the 1938 lock. It is comparable in size to the seven other locks on the 465 mile Columbia /Snake River Inland Waterway.



Fish Passage Elevation gained up the fish ladder.....18.3 meters (60 feet)

The fish ladders are necessary so that adult fish can get past Bonneville Dam to return to their spawning grounds.

The best months to see fish climbing the fish ladders are:

Chinook Salmon *September*
 Coho Salmon *September*
 Sockeye Salmon *June*
 Steelhead Trout *August*
 American Shad *June*
 Lamprey *June*

SONS Communications Strategy

Background

The need for a SONS Communications Strategy emerged from Principal-level discussion at the 2013 Arctic SONS Executive Seminar. An interagency workgroup formed to develop a strategy, initially focused on promoting “speaking with one voice” across federal agencies during a SONS response. The workgroup members include representatives from the National Security Council Staff, Department of Homeland Security, and National Response Team (NRT) agency representatives, including agency public affairs specialists. The workgroup completed a draft version of the SONS Communications Strategy for review and discussion at the 2014 SONS Executive Seminar in November 2014. During this seminar, agency Principals and senior executives provided comments and recommendations on how to improve the document. Workgroup members developed a work plan and began to revise the strategy.

In June 2015, the SONS Executive Steering Committee (ESC) Chair, and the NRT Co-Chairs attended a discussion panel focused on facilitating communication and journalism during environmental disasters. Following this discussion, the SONS ESC Chair directed the workgroup to revise the document to focus on delivering truthful, timely, and transparent messages rather than using terms that could give the impression the document is about message control. EPA’s Office of General Counsel also conducted an extensive review of the document and provided comments, which the workgroup is currently adjudicating.

Overview of the Product

The purpose of the SONS Communications Strategy is to provide senior federal agency officials a tool to use during a SONS that aids in transmitting truthful, timely, and transparent messages to the public. An important piece of this process is to ensure that all government agency officials who may be involved in a SONS response have a general understanding of the complex laws and regulations that impact organizational structure and decision making during these rare events. Currently, this information is spread across several documents originating from various agencies. Summarizing the rules and federal agency guidance that apply during a SONS into one document will provide a common baseline of information for federal agency officials to reference, resulting in improved messaging during a response.

In its current form, the SONS Communications Strategy has two main sections. The first part describes the communications structure during a SONS as well as policies and methods for disseminating strategic messaging. The second part includes sample answers and applicable policy guidance that may be used by the National Incident Commander (NIC) or Senior Agency Official (SAO) for answering questions posed by the media and public during a SONS.

Way Forward

The workgroup proposes separating the current version of SONS Communications Strategy into two separate documents. The first document will focus on providing the basics of the National Response System and the National Response Framework and how they are implemented and interface. This section will address the response organization during a SONS and the authorities, jurisdiction, and responsibilities of the NIC/SAO. This document will also include an overarching communications strategy and ideal communications flow. The target audience for this document is intended to be senior federal agency officials who may play a role in a SONS.

The second document is intended to be a Public Affairs Guidance (PAG) tool for NRT member agencies during a SONS. Public Affairs Officers from various agencies use PAGs to develop more specific formal messaging during spill responses and other operations. This document can be used as a guide for agency Public Affairs Officers and potentially agency Principals for delivering the message to the public on spill response policy and procedures during a SONS or other challenging spill responses.

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Acronyms

ACP	Area Contingency Plan
AIRFA	American Indian Religious Freedom Act
ARPA	Archaeological Resources Protection Act
ATSDR	Agency for Toxic Substances and Disease Registry
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act, also known as Superfund
CFR	Code of Federal Regulations
CRITFC	Columbia River Inter-Tribal Fish Commission
CWA	Clean Water Act
DC	Deputies Committee
dilbit	diluted bitumen
DRG	Domestic Readiness Group
EPA	Environmental Protection Agency
ESF	Emergency Support Function
FIOP	Federal Interagency Operational Plan
FOSC	Federal On-Scene Coordinator
FRA	Federal Railroad Administration
IC	Incident Command
ICS	Incident Command System
NAGPRA	Native American Graves Protection and Repatriation Act
NCP	National Oil and Hazardous Substances Pollution Contingency Plan, also known as the National Contingency Plan
NHPA	National Historic Preservation Act
NIC	National Incident Commander
NOAA	National Oceanic and Atmospheric Administration

NPFC	National Pollution Fund Center
NRC	National Response Center
NRDA	Natural Resource Damage Assessment
NRDAR	Natural Resource Damage Assessment and Restoration
NRF	National Response Framework
NRS	National Response System
NRT	National Response Team
NWR	National Wildlife Refuge
OPA	Oil Pollution Act
OPA90	Oil Pollution Act of 1990
OSC	On-Scene Coordinator
OSLTF	Oil Spill Liability Trust Fund
PAG	Public Affairs Guidance
PC	Principals Committee
PHMSA	Pipeline and Hazardous Materials Safety Administration
PPD	Presidential Policy Directive
PRP	potentially responsible party
RCP	Regional Contingency Plan
RP	responsible party
RRT	Regional Response Team
SAO	Senior Agency Official
SONS	Spill of National Significance
SVI	Social Vulnerability Index
UC	Unified Command
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard

Executive Seminar Logistics: Directions to the “Horizon Ballroom” at the Ronald Reagan Building



1300 Pennsylvania Avenue, NW Washington DC 20004
202/312-1300

BY METRO - FEDERAL TRIANGLE (Blue/Orange/Silver Lines) METRO STOP

- Follow signs inside station to Ronald Reagan Building
- Once inside the building, walk straight down the corridor to the concierge desk and make a right
- Head straight and take the escalators up to the “G” Ground level
- At the top of the escalators, walk slightly to the left
- Walk to the intersection near the Environmental Protection Agency office lobby (in the Ronald Reagan Building)
- Walk straight through the double doors and down the corridor
- The Horizon Ballroom will be on the right

BY CAR

- Enter parking garage from any of the three entrance ramps
- Follow posted GREEN signs for the Atrium elevator banks
- Take Atrium North or Atrium South elevator up to “G” Ground level
- Exit elevator and turn right
- Walk to the intersection near the Environmental Protection Agency office lobby (in the Ronald Reagan Building)
- Walk straight through the double doors and down the corridor
- The Horizon Ballroom will be on the right

BY CAB OR FROM METRO CENTER (Red Line) METRO STOP

- Enter the Moynihan Plaza at the corner of 13th Street and Pennsylvania Avenue
- Walk towards ARIA Restaurant (orange awning with outdoor tables)
- Enter the building through the door on your right just before the restaurant
- Once through the security checkpoint walk towards the intersection near the Environmental Protection Agency office lobby (in the Ronald Reagan Building) and make a right through the double doors
- The Horizon Ballroom will be down the corridor on the right

**A CONCIERGE DESK IS LOCATED NEAR EACH ENTRANCE DOOR
FOR ADDITIONAL ASSISTANCE**

