

3.17 PUBLIC SERVICES AND INCIDENT RESPONSE



Public services contribute greatly to the general welfare of local communities. Police, fire, and emergency medical responders help to promote safety and protect life and property. Industries, railroads, and government agencies plan and respond to human-caused accidents such as fires or spills of hazardous substances that can impact people and the environment. This chapter describes existing public services and incident response in the study area and the proposed project’s potential impacts on them.

STUDY AREA AND METHODOLOGY

The study area used to analyze impacts to public services and incident planning and response includes the proposed project site, the proposed wetland mitigation site, and the Anacortes and Bellingham subdivisions within Skagit County. An extended study area was determined for potential impacts of the proposed crude-by-rail transport route through Washington beginning at Sandpoint Junction, Idaho. Sandpoint Junction is approximately 22 miles east of the Washington-Idaho state line and is where the BNSF Railway main line meets the Montana Rail Link line. Existing services at the proposed project site and the crude-by-rail transport routes were evaluated, and the potential demands on services that would be caused by the proposed project were assessed. The cumulative impacts study area for public services and incident response is the same as described for the direct and indirect impacts.

Select laws, regulations, and guidance applicable to public services and incident response, including hazardous materials accidents, associated with the proposed project are summarized in Table 3.17-1.

Table 3.17-1 Laws, Regulations, and Guidance for Project-Related Public Services and Incident Response

Laws, Regulations, and Guidance	Description
Federal	
Department of Transportation Hazardous Materials Regulations (49 CFR 100–185)	Governs the transportation of hazardous materials in all modes of transportation—air, highway, rail, and water.

Laws, Regulations, and Guidance	Description
Clean Water Act (CWA), Section 311 (33 USC 1251 et seq.)	Establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulates quality standards for surface water. Section 311(b)(3) of the Clean Water Act prohibits the discharge of threshold amounts of oil or hazardous substances into U.S. navigable waters.
U.S. Environmental Protection Agency (USEPA) Spill Prevention, Control, and Countermeasure Plan and Facility Response Plan (40 CFR 112)	Provides guidelines for the prevention and response plans for accidental discharges of oils and hazardous substances into the waters of the United States.
U.S. Coast Guard Facility Operations Manual (33 CFR 154, Subpart F)	Establishes oil spill response plan requirements for all marine transportation-related facilities that could reasonably be expected to cause substantial harm or significant and substantial harm to the environment by discharging oil into or on the navigable waters.
Federal Railroad Administration (FRA) General Regulations (49 CFR Parts 200-299)	Established the Surface Transportation Board—an independent adjudicatory and economic-regulatory agency charged by Congress with resolving railroad rate and service disputes and reviewing proposed railroad mergers.
Comprehensive Environmental Response, Compensation, and Liability Act CERCLA (42 USC)	Establishes prohibitions and requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when no responsible party can be identified.
Superfund Amendment and Reauthorization Act (SARA) (40 CFR 302)	Amended CERCLA to stress the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites. Requires actions to consider the standards and requirements found in other state and federal environmental laws and regulations; provides new enforcement authorities and settlement tools, increases state involvement in every phase of the program and the focus on human health problems posed by hazardous waste sites; encourages greater citizen participation in making decisions on how sites should be cleaned up; and increases the size of the trust fund.
Resource Conservation and Recovery Act (RCRA) (42 USC 6901 et seq.)	Gives the USEPA the authority to control hazardous waste from the “cradle-to-grave.” This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. Also sets forth a framework for the management of non-hazardous solid wastes. This is a delegated Washington State program under the Washington Hazardous Waste Management Act.



Laws, Regulations, and Guidance	Description
Toxic Substances Control Act (15 USC 2601–2629)	Provides USEPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures.
Occupational Safety and Health Act (OSHA) (29 USC 651 et seq.)	Enacted to “assure safe and healthful working conditions for working men and women.” Sets standards and enforces inspections to ensure that employers are providing safe and healthful workplaces.
State	
State Environmental Policy Act (SEPA) (RCW 43.21c; WAC 197-11)	Helps state and local agencies in Washington identify possible environmental impacts that could result from a proposed action, alternatives to the proposed action, and potential impact minimization and mitigation measures. Information learned through the review process can be used to change a proposal to reduce likely impacts and inform permitting decisions at the state and local levels.
Water Pollution Control Act and Water Quality Standards for Groundwaters of the State of Washington (RCW 90.48; WAC-173-200)	Maintains the highest possible standards to ensure the purity of all waters of Washington State are consistent with public health and public enjoyment, the propagation and protection of wildlife, birds, game, fish, and other aquatic life and industrial development of the state. To that end, requires the use of all known available and reasonable methods by industries and others to prevent and control the pollution of state waters. Establishes and implements policies to maintain the highest quality of the state's groundwaters and protects existing and future beneficial uses of the groundwater through the reduction or elimination of the discharge of contaminants.
Washington State Oil and Hazardous Substance Spill Prevention and Response (RCW 90.56)	Establishes a comprehensive prevention and response program to protect Washington's waters and natural resources from oil spills. Anyone responsible for spilling oil into state waters is liable for damages resulting from injuries to public resources.
Oil Movement by Rail and Pipeline Notification Rule (WAC 173-185) (Effective October 1, 2016)	Oil Movement by Rail and Pipeline Notification to enhance oil spill preparedness and response in Washington State. Establishes reporting standards for facilities that receive crude oil by rail, and pipelines that transport crude oil in or through the state. Additionally, the rule identifies reporting standards for the Washington State Department of Ecology (Ecology) to share information with emergency responders, local governments, tribes, and the public.



Laws, Regulations, and Guidance	Description
Oil Spill Contingency Plan - Railroad Rule (WAC 173-186; RCW 90.56) (Effective October 1, 2016)	These regulations establish oil spill contingency plan, drill and equipment verification requirements, and provisions for inspection of records for owners and operators of railroad required to submit oil spill contingency plans under chapter 90.56 RCW, and for the response contractors that support the implementation of the railroad plans. The adoption of this rule will require railroads to develop and maintain contingency plans approved by Ecology.
Washington State Hazardous Waste Management Act (RCW 70.105, and WAC 173-303)	Establishes and implements a comprehensive statewide framework for the planning, regulation, control, and management of hazardous waste that will prevent land, air, and water pollution and conserve the natural, economic, and energy resources of the state.
Model Toxics Control Act (MTC) and Cleanup Regulation (RCW 70.105D; WAC 173-340)	Sets cleanup standards to ensure that the quality of cleanup and protection of human health and the environment are not compromised and requires potentially liable persons to assume responsibility for cleaning up contaminated sites.
Washington State Solid Waste Handling Standards (WAC 173-350)	Set standards for the proper handling and disposal of solid waste.
Washington State Hazardous Waste Operations (WAC 296-843)	Applies to facilities that have workers handling hazardous waste at a treatment, storage, or disposal facility and are required to have a permit under RCRA. The Shell Puget Sound Refinery has RCRA Permit: WAD 009 276 197.
Oil Spill Natural Resource Damage Assessment (WAC 173-183)	Establishes procedures for convening a resource damage assessment committee, pre-assessment screening of resource damages resulting from oil spills to determine which damage assessment methods to use, and determining damages in cases where the compensation schedule is selected as the damage assessment methodology to apply.
Industry Agreements	
Mutual Aid Agreement for Rail Emergency Response	In 2015, Shell and the other Washington refineries entered into a Mutual Aid Agreement with BNSF Railway to share personnel and resources in the event of a rail accident involving crude oil in Washington State.



AFFECTED ENVIRONMENT

Proposed Project and Wetland Mitigation Sites

Public Services

Fire Protection and Emergency Medical Response

Fire protection and emergency medical response support services are available to address accidents at the Shell Puget Sound Refinery (PSR) and the surrounding areas, including the wetland mitigation site. Those services include localized support at the Shell PSR, as well as a broader network made possible by established mutual aid agreements with fire districts throughout the region (Figure 3.17-1).

The Shell PSR maintains teams of trained personnel to respond to fire and medical emergencies, as well as oil spills, hazardous material releases, and other events. These teams are the first responders to all accidents within the Shell PSR boundaries. The Shell Refinery Emergency Response Plan provides the framework for preparing for and responding to accidents, with specific plans for firefighting, spill response, notifications, and evacuation (Shell PSR 2014). This plan uses universal *Incident Command System* (ICS) protocols to facilitate an integrated organizational structure.

In addition, the Shell PSR and other surrounding industrial facilities coordinate regularly with fire departments, emergency service providers, Skagit County Emergency Management **Department, and hospitals through Skagit County's Community Awareness and Emergency Response** organization (Shell PSR 2014).

Fire District 13

Skagit County Rural Fire Protection District 13 provides volunteer fire and rescue response services in the unincorporated areas to the east and south of Anacortes, including the Shell PSR. District 13 boundaries encompass the areas south of State Route (SR) 20 and immediately adjacent to the proposed project site. The nearest District 13 fire station is located at 8652 Stevenson Road, approximately 0.4 mile south of the project site.

Fire District 11

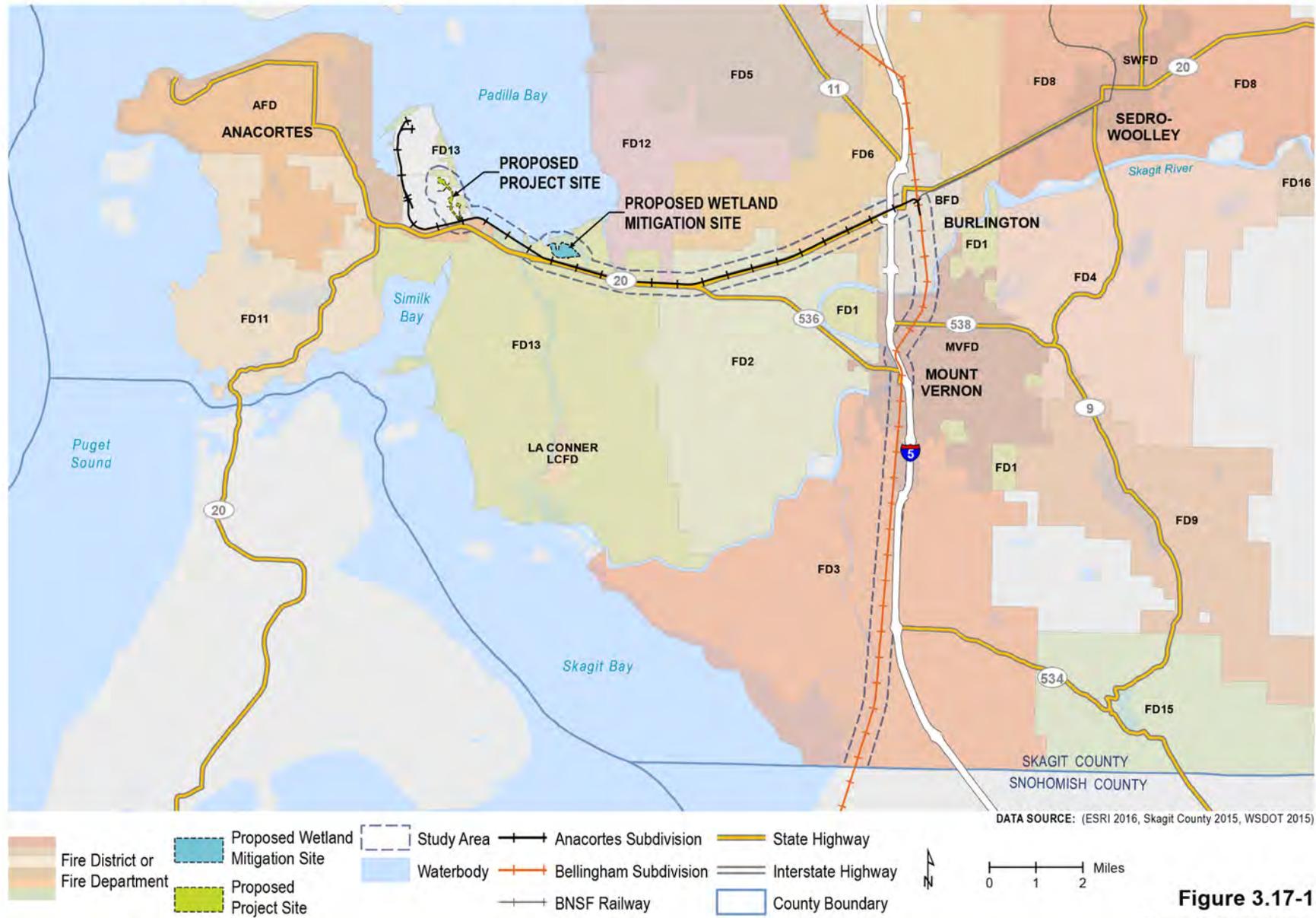
Skagit County Fire District 11 (also known as the Mt. Erie Volunteer Fire Department) is **available to respond to incidents at the Shell PSR. District 11's boundaries** are southwest of the Shell PSR. The nearest District 11 fire station is located at 14825 Deception Road, approximately 4.7 miles from the project site.

The Incident Command System (ICS) is a standardized approach to integrating facilities, equipment, personnel, procedures, and communications into an organized structure so emergency responders from multiple agencies can be effective. The National Incident Management System establishes a unified command structure for responses and includes federal, state, local on-scene coordinators, and tribal and agency representatives with jurisdiction.



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**Figure 3.17-1
FIRE DISTRICTS**



City of Anacortes Fire Department

Under a Mutual Aid Agreement, the City of Anacortes Fire Department (AFD) provides fire protection and emergency medical response services to the project site. The AFD has 18 firefighters/paramedics, two firefighters/emergency medical technicians (EMTs) (City of Anacortes 2016a), and four volunteer firefighters (City of Anacortes 2014). In 2014, the AFD responded to 430 fire calls and 2,563 medical calls; average response time was 8 minutes. Of the fire response calls in 2014, 7 percent (30 calls) were related to hazardous materials; 10 percent (43 calls) were for structure fires.

The largest category of fire response calls in 2014 (24 percent) was in response to automatic fire alarms. AFD Station 3 is the closest fire station to the proposed project site, located at 9029 Molly Lane in Anacortes, about 0.3 mile south of the project site. Access to the project site from Station 3 would be via Reservation Road (across SR 20 and the Anacortes Subdivision tracks) and South March's Point Road.

Law Enforcement

Patrols of the Skagit County Sheriff's Office and the Anacortes Police Department provide protective and response services to the areas around the project site. The Anacortes Police Department has 25 commissioned officers and seven noncommissioned employees (City of Anacortes 2016b).



Skagit County Sheriff's Office

Incident Planning and Response

As noted above, Shell has teams of trained personnel to respond to fire and medical emergencies, as well as oil spills, hazardous material releases, and other events. These teams are the first responders to all accidents within the Shell PSR boundaries. The Shell Refinery Emergency Response Plan provides the framework for preparing for and responding to accidents, with specific plans for firefighting, spill response, notifications, and evacuation, as well as coordination with public emergency response agencies.

The Skagit County Department of Emergency Management, under the direction and guidance of the Skagit Emergency Management Council, is responsible for coordinating **local agencies'** responses to accidents that occur within the county. The Skagit County Comprehensive Emergency Management Plan provides the framework for responses to natural and human-caused emergencies or disasters.



Anacortes and Bellingham Subdivisions

Public Services

Fire Protection and Emergency Medical Response

Fire and emergency medical services along the Anacortes and Bellingham subdivisions within Skagit County include multiple departments: the Anacortes, Burlington, and Mount Vernon fire departments, and Skagit County Fire Protection Districts 2, 3, 6, 12, and 13. The locations of these fire districts are shown in Figure 3.17-1.

Law Enforcement

Law enforcement services are **provided by the Skagit County Sheriff's Office and the police** departments of Anacortes, Burlington, Mount Vernon, and the Swinomish Tribe.

Skagit County Sheriff's Office Patrol Division is responsible for law enforcement in unincorporated Skagit County and is comprised of approximately 50 commissioned officers, including 35 patrol deputies, and a marine patrol unit. In addition, the Washington State **Patrol's** Autonomous Patrol Area 7 serves Skagit County and provides two detachments of 17 troopers and two sergeants based out of the Burlington Detachment office (Skagit County 2016).

Incident Prevention and Response Planning

The local fire department typically acts as the first responder to accidents along the railway. However, BNSF Railway also acts as a responder for accidents such as derailments, fires, or spills involving the railroad on the Anacortes and Bellingham subdivisions. BNSF Railway has an extensive network of first responders, equipment, and contractors with the capacity to respond to potential crude oil and hazardous materials accidents. In addition, BNSF Railway has developed and shared its emergency response plans with local emergency response teams and provided accident training to fire departments within 2 miles of its rail lines (Shell 2014). The BNSF Railway's **Geographic Response Plan for the Anacortes** Subdivision (MP 16-0) (BNSF 2013) presents details and site-specific responses by milepost. BNSF Railway has identified the following response steps for accidents in Skagit County:

- Coordinate BNSF Railway staff (train crews and hazardous materials response teams) with Skagit County emergency dispatch and on-site responders.
- Mobilize response contractors from Anacortes, Everett, and/or Seattle.
- If needed, mobilize specialty response staff, such as the BNSF Railway Hazardous Materials **Response "Strike Team"** from Vancouver, Washington (Shell 2014).

Emergency responders have control of railroad accidents in which hazardous materials are spilled; however, railroads provide the resources for mitigating accidents. Railroad companies also reimburse local emergency agencies for the costs of materials the agencies expend during such response efforts.

In addition to these steps, the response plans and procedures described for the extended study area below would also apply to the Anacortes and Bellingham subdivisions in Skagit County.



Through the Oil Spill Contingency Plan - Railroad Rulemaking (WAC 175-186), adopted by Washington State in August 2016, BNSF Railway will be required to develop and maintain oil spill contingency plans approved by Ecology. The regulations establish oil spill contingency plan, drill and equipment verification requirements, and provisions for inspection of records for owners and operators of railroad required to submit oil spill contingency plans under RCW 90.56, and for the response contractors that support the implementation of the railroad plans.

If the Shell PSR is notified of a tank car accident on the Anacortes or Bellingham subdivision, Shell would send members of the Shell PSR Response Action Team or approved contractors to respond or provide technical support to address the situation. The Response Action Team consists of trained hazardous materials responders located throughout the U.S. and Canada. In 2015, Shell and the other refineries located in Washington State entered into a mutual aid agreement with BNSF Railway to share personnel and resources in the event of a rail accident involving crude oil in the state (WSPA 2015).

Shell is a member of Community Awareness and Emergency Response (CAER), an organization established to enhance awareness of local chemical and petroleum industries. The local CAER is made up of industrial members: Shell, Tesoro, Air Liquide, Linde, and Chemtrade Solutions. Other members include Skagit County Department of Emergency Management, several local police and fire departments, Swinomish Tribe, Island Hospital, and Anacortes Red Cross. Annually, CAER conducts an emergency response drill at one of the member facilities.

Shell regularly conducts response drills and provides personnel with training, which is a required component of their contingency plan. The Shell PSR typically conducts monthly training that includes review of oil spill response plans, gear inventories, and deployment of response equipment with agency representatives on site for observation. Typical trainings are six hours long; some trainings are two hours long. They are a mix of classroom training, local on-site, in-water trainings, and off-site training. Approximately every three years, each team member is sent for training at schools such as Ohmsett and Texas A&M University in Corpus Christi, Texas. The participants include oil spill team members; the Marine Spill Response Corporation (MSRC), the Shell **PSR's** oil spill response organization, and others. The Washington State Department of Ecology (Ecology) typically evaluates one to two trainings per year. The Swinomish and Samish tribes have participated in **Shell's** oil spill response training and annual oil spill tabletop exercises.

Firefighting equipment and facility response equipment is maintained at the Shell PSR, with a large inventory located throughout the main facility and marine terminal. Facility response equipment is intended to provide an efficient initial response to contain a spill before it spreads. This inventory includes six vessels and five individual boom packs with a total of 8,000 feet of boom available; 24 marine radios and four cell phones. The vessels and boom are located either on site or at the Cap Sante Marina in Anacortes. Oil spill response consumables such as absorbent pads and oil snares (i.e., pompoms) are also available for deployment.



Extended Study Area

Public Services

Multiple jurisdictions provide police, fire, and emergency medical response services along the BNSF Railway corridor in Washington State that would be used for transporting crude oil to the Shell PSR. The BNSF Railway main line traverses Spokane, Lincoln, Adams, Franklin, Benton, Klickitat, Skamania, Clark, Cowlitz, Lewis, Thurston, Pierce, King, and Snohomish counties, and includes areas served by urban fire and police departments, rural fire districts, and county **sheriff's department offices**.

Incident Prevention and Response Planning

Incident Prevention

Federal and state agencies share responsibility for establishing prevention guidelines. The U.S. Coast Guard (USCG) and U.S. Environmental Protection Agency (USEPA) are responsible for implementing federal prevention plans for facilities (33 CFR 154, Operations Manual; 33 CFR 156, Oil and Hazardous Material Transfer Operations, 40 CFR 112, Spill Prevention, Control and Countermeasure plans). **Ecology's Spill Prevention, Preparedness and Response Program** regulates facilities that handle oil. Ecology inspectors may conduct facility inspections to ensure compliance with state pollution prevention requirements. Federal and state laws mandate specific facility and tank car design elements to reduce the risk of spills and to contain them immediately.

Emergency Response Plans and Systems

As with the Anacortes and Bellingham subdivisions, BNSF Railway is the first responder for fires, spills, or other accidents involving the railroad. BNSF Railway maintains equipment and a network of contracted first responder teams throughout the extended study area. They also coordinate with, and make incident response training available to, fire districts and departments.

As described above, through the Oil Spill Contingency Plan - Railroad Rulemaking (WAC 173-186), BNSF Railway will be required to develop and maintain oil spill contingency plans approved by Ecology. The regulations establish oil spill contingency plan, drill and equipment verification requirements, and provisions for inspection of records for owners and operators of railroad required to submit oil spill contingency plans under RCW 90.56, and for the response contractors that support the implementation of the railroad plans.

In the event of a crude oil spill, fire, or explosion along the rail transportation route, BNSF Railway would implement its own System Emergency Response Plan. This plan defines roles and responsibilities of BNSF Railway personnel, outlines notification procedures, provides guidelines for hazard identification and accident classification, and describes incident management procedures, resource utilization, and health and safety procedures. It also incorporates the relevant response plans addressed above. In the event of an accident, BNSF Railway would inform appropriate federal, state, and local response agencies. BNSF Railway has numerous first responders positioned across its rail network. Along the BNSF Railway route to the Shell PSR



within Washington, there are five hazardous materials first responder locations that would be available to assist local emergency teams in the event of a rail accident (BNSF 2014).

BNSF Railway emergency responders complete an initial 80-hour hazardous materials course and security and emergency response training at the Transportation Technology Center, Inc. (TTCI), a railroad testing and training facility specifically devoted to crude oil emergency response. In addition, they receive an annual refresher course related to tank cars, incident command, air quality monitoring, and advanced technologies (BNSF 2015). BNSF Railway response equipment includes industrial firefighting foam trailers, emergency breathing air trailers, chlorine kits, midland kits, and air monitoring equipment (BNSF 2014). The BNSF Railway system has 20 fire trailers to provide equipment and supplies to contract firefighters in response to an accident (BNSF 2014).

In addition to incident response procedures for the railroad transportation corridor, there are multiple guidelines and requirements that are applicable to all accidents with which BNSF Railway, Shell, and other entities must comply in conducting activities related to transporting and handling oil. Preventing oil spills is the best strategy for avoiding potential damage to human health and the environment. However, if an accident occurs, a quick response in a well-organized manner is the optimal approach for containing and controlling the spill.

Regulations adopted by Ecology in August 2016, in the Oil Movement by Rail and Pipeline Notification rule (WAC 173-185), created reporting standards for facilities that receive crude oil by rail, and pipelines that transport crude oil through the state. Additionally, the rule identifies reporting standards for Ecology to share information with emergency responders, local governments, tribes, and the public. Notification of oil movement will provide emergency responders with essential information they can use to better prepare for and respond to accidents. The information provided will identify the volume and type of crude oil scheduled for transport through the state. Emergency responders can use the information to plan response strategies, equipment selection, and staffing levels.



Rail Safety Requirements

On May 1, 2015, the Federal Railroad Administration (FRA) released the “Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains” Final Rulemaking. This rule implemented requirements to improve safety for all key trains (trains with 20 or more cars carrying hazardous materials) traveling on main line tracks. Although some of these requirements are not in place yet, in many cases, BNSF Railway and other railroads have implemented some of the additional safety measures for crude oil trains beyond those required by the FRA (BNSF 2015). The rule included a requirement for all tank cars for use in a high-hazard flammable train constructed after October 15, 2015, to meet DOT Specification 117 design criteria. These safety requirements and standards are described below.

Enhanced Braking

Beginning in 2021, trains operating on main line tracks carrying at least 20 tank cars of crude oil must be equipped either with distributed power (locomotives placed in locations other than the front of the train) or with end-of-train (EOT) devices that have a two-way radio link that connects the rear of the train with the head locomotive. Distributed power and EOTs allow brakes to be applied from the head of the train and locations farther back to stop the train faster.

Increased Track Inspections

The FRA establishes railroad safety regulations (49 CFR 200–299) that relate to tracks, bridges, signaling systems, operations, and locomotives. FRA regulations also dictate the types and frequencies of inspections that railroads must perform. Railroad company inspections often exceed these requirements. For example, railroads have agreed to perform at least one additional internal rail inspection, and at least two automated comprehensive track geometry inspections each calendar year. BNSF Railway further exceeds FRA requirements by increasing rail detection testing frequencies along critical waterways to 2.5 times per calendar year.

Increased Wayside Detector Technology

As of July 2014, specialized wayside “hot box” detectors have been installed at least every 40 miles along routes with trains carrying 20 or more tank cars containing crude oil. These detectors help prevent incidents by measuring if wheel bearings are generating excessive heat and, therefore, are in the process of failing. BNSF Railway exceeds this requirement by spacing the “hot box” detectors at every 10 miles on crude oil routes that parallel critical waterways. A key train stopped by a “hot box” detector must remove the indicated car.

Lower Operating Speeds

Nationwide, the maximum speed is 50 miles per hour (mph) for all key trains. BNSF Railway exceeds this requirement by reducing the maximum train speed to 30 mph for all shale crude oil trains traveling through municipalities with populations of 100,000 or more.

Key Train Operating Practice Restrictions

When two trains meet on a track, a key train is given priority and will hold the main track whenever practicable. This practice reduces the risk of a derailment because the train is not required to switch on and off the main track. Also, a key train experiencing an emergency brake application requires inspection of the entire train before proceeding.

Unattended Train Requirements

Unit trains transporting crude oil that are left unattended require specific job safety briefings between the train crew and the train dispatcher. Trains left unattended have their reverser removed and cab doors locked to maximize security.



Several contingency plans and transportation regulations provide coordinated preparation for an oil spill or hazardous substance release. These measures establish roles and responsibilities and identify resources and response procedures to protect life. They also help to reduce and mitigate the impacts of a pollutant discharge on the environment and property. The following sections summarize the contingency plans that have been developed to prepare for an accident.

National Response System

The federal National Response System is a scalable, flexible, and adaptable guide for responding to oil and other hazardous material spills. The system coordinates key roles and responsibilities across the nation. The National Response System provides a team of trained personnel for the federal on-scene coordinator. Team members have received specialized training for oil spill and hazardous materials releases.

Responses are managed using the National Incident Management System. This system establishes unified command structure, which includes federal, state, local on-scene coordinators, and tribal and agency representatives with jurisdiction. Within the unified command structure, the representatives make decisions as a team, sharing resources and information to mitigate the situation. The unified command structure is used for emergency response, fire, disaster, wildfire, and law enforcement operations. It provides an effective framework for responding to various accidents.

National Contingency Plan

Through the National Response System, the National Contingency Plan establishes national response capability and overall coordination among the responders and contingency plans for oil spills. The National Response System consists of three organizational levels: national, regional, and local at the Shell PSR. If an oil spill or a hazardous material response incident escalates beyond the limits of state resources, additional federal assets are available and can be requested.

Under the National Contingency Plan, the federal on-scene coordinator is designated as either USCG or USEPA, depending on the location of the spill. Ecology is the designated state on-scene coordinator for spill response (RCW 90.56.020). The Washington Emergency Management Department is the designated state on-scene coordinator for natural disasters. The Washington State Patrol or state fire marshal is the designated state on-scene coordinator for fires.

PHMSA and U.S. Fire Administration-National Fire Academy Guidance

The Pipeline and Hazardous Materials Safety Administration (PHMSA) and the U.S. Fire Administration-National Fire Academy continue to work to develop and provide access to emergency response guidelines. As part of this initiative, a Lessons Learned Roundtable forum was convened in 2014 to leverage the expertise of fire chiefs and emergency management officials from areas that had experienced a crude oil or ethanol rail transportation incident (PHMSA 2014). The key findings from this roundtable have been referenced in the proposed revisions to regulations that would expand the applicability of comprehensive oil spill response plans (PHMSA 2016).



Northwest Area Contingency Plan

The Northwest Area Contingency Plan is the planning framework for oil and hazardous substance spill response in Washington, Idaho, and Oregon. This plan is developed and implemented by federal, state, and local agencies. The plan includes, but is not limited to, the following elements:

- A description of the area covered by the plan, including the areas of special economic or environmental importance that might be damaged by a spill.
- Roles and responsibilities of owners or operators within federal, state, and local agencies in connection with spill response, and in mitigating or preventing potential discharges.
- A list of equipment (including firefighting equipment) and personnel available to respond to oil spills.
- Site-specific geographic response plans (GRPs).

GRPs are written by Ecology and/or USEPA for a specific area and include tactical response strategies tailored to a particular shore or waterway at risk of injury from oil. GRPs have two main objectives: 1) to identify sensitive resources at risk of injury from oil spills, and 2) to direct response actions related to sensitive resource protection during the initial hours of a response.

GRPs help to coordinate response efforts conducted by the responsible party and federal and state agencies. Strategies in the plan are deployed by responders after the immediate concern of controlling and containing the source of a spill has been addressed. GRPs contain maps and descriptions of natural, cultural, and economic resources, and identify strategies to reduce harm to those resources. They also prioritize which response strategies should be implemented based on the location of the spill. Three GRPs are relevant to the proposed project site, the Anacortes Subdivision, Skagit County, and the Puget Sound region:

- North Central Puget Sound Geographic Response Plan – The North Central Puget Sound GRP covers roughly 373 square miles of Puget Sound. It extends from Mukilteo in the south and north to Skagit Bay and the Swinomish Channel.
- San Juan Islands/North Puget Sound Geographic Response Plan – The San Juan Islands/ North Puget Sound GRP is bounded by Point Roberts to the north; the southern tip of Lopez Island and Fidalgo Island to the south; Haro Strait to the west; and the mainland of northern Washington to the east (including Boundary Bay, Semiahmoo Bay, Drayton Harbor, Birch Bay, Lummi Bay, Bellingham Bay, Padilla Bay, and Burrows Bay).
- Central Puget Sound Geographic Response Plan – The Central Puget Sound GRP is bounded by Edmonds to the north and Commencement Bay to the south. It includes Liberty Bay, Port Orchard, Sinclair Inlet, and Dyes Inlet.

Other GRPs for the representative crude-by-rail transport route (see Chapter 2, Figure 2-9) on the BNSF Railway main line include: Spokane River, Snake River/Ice Harbor Pool, Middle Columbia River (GRPs for McNary Pool, John Day Pool, and Bonneville Pool), Clark/ Cowlitz/ Lower Columbia Rivers, Chehalis River, Nisqually River, South Puget Sound, Green/Duwamish River, Lake Washington, and Snohomish/Skykomish rivers.



Washington State Emergency Response System Ecology is designated as the **state's lead agency** "to oversee prevention, abatement, response, containment, and cleanup efforts with regard to an oil or hazardous substance spill to **waters of the state**" (Etkin et al. 2015). Washington State law has established Ecology as the predesignated state on-scene coordinator for all oil and hazardous substance spills in state waters. Ecology is also responsible for supporting federal response actions. The Washington State Emergency Response System is designed to provide coordinated state agency response, in cooperation with federal agencies, for effective cleanup of oil or hazardous substance spills. The following agencies have a role in responding:

- The Washington State Patrol assumes responsibility as Incident Commander and acts as the lead state agency responsible for cleanup activities when oil and hazardous substance spills occur on state highways. The Washington State Patrol also assists local jurisdictions with law enforcement and evacuations and represents local jurisdictions as designated.
- The Incident Commander coordinates and maintains liaison with other state agencies involved with an accident, assists in receiving and disseminating warning information, provides communications and technical support to responders, provides radiological monitoring, provides aerial reconnaissance of the impacted area, coordinates fire resources when an emergency mobilization is authorized for a hazardous substance incident, and provides 24-hour, statewide communications support.
- The Washington Military Department's **Emergency Management Division (EMD)** maintains capabilities to make 24-hour notifications to Ecology, Washington State Patrol, and other appropriate local, tribal, state, and federal agencies. The EMD also activates the state Emergency Operations Center when required, where it also coordinates state agency response activities; provides public information officer support to the Joint Information Center or Incident Command posts; and provides communication links on an ongoing basis.
- During oil spills, the Washington Department of Fish and Wildlife (WDFW) coordinates activities for rescuing and rehabilitating wildlife injured, assists in identifying fish and wildlife protection needs, and assists in reconnaissance and Natural Resource Damage Assessment efforts.

In 2015, the Washington State Legislature directed Ecology to develop rules on reporting requirements for the movement of crude oil by rail. Ecology adopted rules in August 2016 that are intended to enhance oil spill preparedness and response in the state. A new rule (WAC 173-185) created notification requirements for facilities receiving crude oil by rail and establish procedures for Ecology to disclose crude oil movement to the public. Ecology also issued a new rule establishing contingency plan requirements for railroads transporting oil by rail (WAC 173-186). The new rules are expected to take effect in October 2016.

Ecology response teams are based in Bellingham, Bellevue, Olympia, Vancouver, Yakima, and Spokane. These teams are available year-round, 24 hours a day.



- The state Department of Health is responsible for handling environmental spills and releases involving radioactive substances and biological agents. The department assists in determining public health impacts to fish and shellfish harvesting and consumption.
- The state Department of Natural Resources assists in the identification of aquatic habitat/state lands protection needs.
- The state Department of Archaeology and Historic Preservation assists in the identification of historic/archaeological resource protection needs.
- The state Parks and Recreation Commission assists in response activities involving state park lands and property.
- The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986. Title III of SARA, the Emergency Planning and Community Right-to-Know Act, establishes requirements for federal, state, tribal, and local governments and industry regarding emergency response planning and the right to know about hazardous chemicals in a community. The Washington State Emergency Response Commission was created in accordance with SARA to implement the provisions of Title III, designate and oversee local emergency planning committees, and facilitate preparation and implementation of emergency planning and preparedness.

Local First Responders

Local and state fire, police, or emergency personnel are likely to be first responders to an accident.

Railroad Response to Oil Spills

Railroads have extensive emergency response capabilities. Railroad personnel work in cooperation with federal, state, and local governments, to assist communities in the event of an accident involving crude oil or other hazardous materials. The major railroads, including BNSF Railway, have teams of full-time personnel whose primary focus is hazardous materials safety and emergency response. Teams of environmental, industrial, and medical professionals are available to provide assistance during hazardous materials accidents.

Railroads also maintain networks of hazardous materials response contractors and environmental consultants, strategically located throughout their service areas, who can handle virtually any air, water, waste, or public health issue. These contractors are on call at all times, have multiple offices and equipment storage locations, as well as monitoring equipment, containment booms, industrial pumps, and other spill response tools and equipment.

“Standard of care” **protocols** are also used by railroad companies to ensure that community impacts, such as evacuations, are addressed promptly and professionally.



Emergency Response Training

Each year, railroads actively train over 20,000 emergency responders throughout the country, ranging from general awareness to in-depth courses. The parameters of these emergency response training programs vary from railroad to another, but, in general, they consist of a combination of some or all of the following aspects:

- Using “hazmat safety trains” and other equipment to simulate a hazardous materials incident that can be shipped from community to community to provide hands-on training for local first responders.
- Operating hazardous materials training centers where they train employees, first responders, customers, and other railroad industry personnel in how to manage hazardous materials incidents.
- Visiting hundreds of local firehouses each year to provide classroom and face-to-face hazardous materials training.
- Partnering with local emergency responders to conduct simulations of emergency scenarios. The focus is on training and familiarization with roles, procedures, and responsibilities.
- Offering self-study programs for emergency responders that allow students to learn proper procedures at their own pace. Some railroads also provide web-based training on hazardous materials and general rail safety issues.

AskRail, a web-based application covering all the major freight railroads, is a system that enables emergency responders to input the identification number of a particular rail car and immediately determine whether the car is loaded or empty, identify the commodity contained in the rail car, the hazard class, the handling railroad, **the handling railroad’s emergency contact phone** number, and any emergency response information associated with the commodity.

Railroads also support our nation’s emergency response capability through the Security and Emergency Response Training Center (SERTC). Since its inception in 1985, SERTC has provided hands-on hazardous materials training to more than 50,000 local, state, and tribal emergency responders, as well as railroad, chemical, and petroleum industry employees from all over the country. Most of the training at SERTC is advanced and builds on basic skills responders receive elsewhere. Also, many railroads regularly provide funding to emergency responders in their service areas to attend SERTC. In addition, railroads have funded the development of a curriculum at TPCI.

ENVIRONMENTAL IMPACTS

No Action Alternative

Because no construction or operation would take place under the no action alternative, there would be no impacts to public services or incident response. Existing conditions with regard to public services and incident response would remain the same unless affected by other projects in the future.



Proposed Project Site

Direct Impacts

Construction

Construction activities would cause a temporary increase in the potential for worker injuries or other accidents that may require dispatch of fire or emergency medical services. Health and safety measures would be implemented during construction to help reduce the chance of accidents requiring emergency response (see Chapter 5 – Summary of Impacts and Mitigation). Increased worker and truck traffic to and from the project site would cause delays on access roads, including SR 20, which could affect the response times of fire, police, or emergency medical response teams. However, such impacts would be minor and would end following construction. The scope of construction for the proposed project is similar to other large-scale construction efforts in Skagit County, and would include traffic management planning to minimize impacts.

Operation

Operation of the proposed rail unloading facility would not create a substantial new demand for public services at the project site. Shell would integrate the new rail unloading facility into its Emergency Response plans to address the specific operations and potential incidents of the proposed project, and would coordinate with local first responders regarding those changes. While elements of operations would change, the overall scope of the refining operations at the Shell PSR would remain essentially the same as the no action alternative. Water, equipment, and materials for fire suppression and spill response activities would be provided on site. While operations at the proposed project site would not involve increasing capacity or production, the new rail unloading facility would require Shell and local providers to adapt to emergency response procedures and would have no long-term impact on the provision of those public services.

Wetland Mitigation Site

Direct Impacts

Construction activities at the wetland mitigation site have the potential to result in injuries or accidents that may require public services. Construction would be temporary and limited to the wetland mitigation site and haul routes in and out of the site. Construction would have a minimal increase in the need for public services and minor travel delays on roads serving the wetland mitigation site.

Anacortes and Bellingham Subdivisions

Direct Impacts

Transporting crude oil by rail to the proposed project site would have impacts on police, fire, and emergency medical response services. Service response times could increase because of delays at at-grade railroad crossings on the Anacortes and Bellingham subdivisions caused by passing unit trains arriving and departing the project site. There would also be the potential for increased demand for emergency services due to a rail accident (e.g., a fire or spill).



Roads with at-grade railroad crossings on the Anacortes and Bellingham subdivisions in Skagit County have poor network redundancy, which means there is a lack of alternate routes around blocked crossings within 0.5 mile of the crossings (SCOG 2016). While the impacts to emergency responders cannot be quantified because of the uncertainties associated with both train traffic and accidents requiring emergency services, responders would experience inevitable delays, thereby adversely affecting their response times. However, incident response planning, as outlined above, would minimize the potential for adverse impacts on emergency services. Shell, BNSF Railway, emergency responders, and federal, state, and local governments would work together to coordinate personnel and resources in the case of an accident.

Detailed discussions on vehicle delays at at-grade railroad crossings are presented in Chapter 3.15 – Rail Traffic Transportation, and Chapter 3.16 – Vehicle Traffic and Transportation.

Extended Study Area

Direct Impacts

Crude-by-rail transport to and from the Shell PSR through Washington State would increase blockages and delay times for at-grade crossings along the proposed delivery and return routes. Based on a survey of fire departments and districts conducted for the Tesoro Savage Vancouver Energy Draft EIS (Kittelsohn 2013), which identified impacts similar to those anticipated for the proposed rail unloading facility at the Shell PSR, the impacts on emergency services would vary based on the location, characteristics of the road network, train speed, and other factors. Given the current train volumes on the BNSF Railway main line routes through Washington (e.g., the BNSF Railway main line from Vancouver to Anacortes has train volumes of 15 to 41 trains per day; the route through Stampede Pass currently handles four to six trains per day [WSDOT 2014]), additional delays as a result of the proposed project would have a minor impact on public services.

Additional train traffic would result in an increased safety risk at at-grade railroad crossings that could require police, fire, and/or emergency medical response services. While the Bellingham Subdivision currently carries heavy levels of train traffic, existing protection at crossings reduces risk of conflicts with passing trains. The increased risk and potential need for response services would be minor.

Incident response planning, as outlined above, would minimize the potential for adverse impacts on emergency services. Shell, BNSF Railway, emergency responders, and federal, state, and local governments would work together to ensure that personnel and resources are available and response is coordinated in the case of an accident.

Indirect Impacts

The added train traffic and intersection vehicular delay could result in indirect impacts due the potential increase in fire damage and personal harm or death if first responders are waiting at crossings occupied by a train.



Cumulative Impacts

On the Anacortes Subdivision, there are no other reasonably foreseeable projects that would increase rail traffic. Direct impacts for the proposed project include the potential for increased service response times because of delays at at-grade railroad crossings caused by passing unit trains arriving and departing the project site. Therefore, the potential for cumulative impacts is the same as direct impacts identified for the proposed project.

On the Bellingham Subdivision, the proposed project, when considered with other reasonably foreseeable future projects, would increase delays at at-grade crossings, which could lead to increased police, fire, and emergency medical response times. The potential for a delay in response times is dependent on the timing and direction of train traffic and the time and location of an emergency response call. The additional gate-down time created by the proposed project, combined with past, present, and reasonably foreseeable future actions, would also increase the potential for delayed response times for emergency services. Therefore, the proposed project would contribute to a cumulative impact on public services. Improvements to local transportation networks proposed by the Skagit Council of Governments (SCOG) and other local jurisdictions, if implemented, would reduce the cumulative impact of the proposed project as well as past, present, and reasonably foreseeable future actions.

MITIGATION MEASURES

Avoidance and Minimization

Minimizing potential impacts that could result from an accident associated with crude-by-rail trains begins with prevention measures. Shell, BNSF Railway, emergency responders, and federal, state, and local governments would continue to work together to coordinate personnel and resources in the case of an accident. The rail unloading facility would be added to the emergency response procedures of BNSF Railway, Shell and local providers, which would enhance the response to an accident.

In addition, Shell has incorporated engineering and operational measures into the design of the proposed project to avoid and minimize impacts to emergency response time including:

- To the extent feasible with BNSF Railway train schedules, Shell would request that BNSF Railway schedule trains to arrive and depart during nonpeak vehicle traffic hours.

Mitigation

Potential impacts to emergency response from increased train traffic and associated delays at at-grade crossings would be minimized by:

- Shell would fund a study to evaluate the feasibility of implementing signal timing revisions at the at-grade crossings along the Bellingham and Anacortes subdivisions in Skagit County, as described in Chapter 3.16 –Vehicle Traffic and Transportation.



In addition, Shell would support measures to enhance incident planning and response and mitigate the potential risks associated with a release of oil in Skagit County and along the proposed project rail transport route throughout Washington State. These measures include:

- Shell would provide funding to create or augment existing oil and hazardous spill response equipment caches along the proposed project rail transport route throughout the state. The caches would contain oil spill response equipment specifically to help respond to spills on land. The co-lead agencies would determine the number and location of caches to be provided.
- Shell would coordinate and fund a deployment drill for a crude-by-rail spill scenario with BNSF Railway and invite the local emergency responders and the tribes to participate.
- Shell would update its existing Puget Sound Refinery oil spill contingency plan to reflect operations of the new crude by rail unloading facility. The updated plan would demonstrate financial responsibility for the potential costs of response and cleanup of oil spills, natural resource damages, and costs to state and affected jurisdictions for response actions to reduce the risks and impacts from an oil spill at the facility. Shell would update the PSR contingency plan in two steps:
 - Shell would submit a draft update to their existing oil spill contingency plan that fully integrates the rail operations into the plan and addresses all factors listed in RCW 88.40.025. The update must be submitted at least 60 days prior to commencing rail operations and include an appropriate level of financial responsibility for a reasonable worst-case spill at the refinery.
 - Once the draft update is reviewed and approved by Ecology, the plan would be updated again to include documentation of financial responsibility. Ecology would then manage a 30-day public review process. Once all requirements have been met, Ecology would grant final approval of the plan update.

