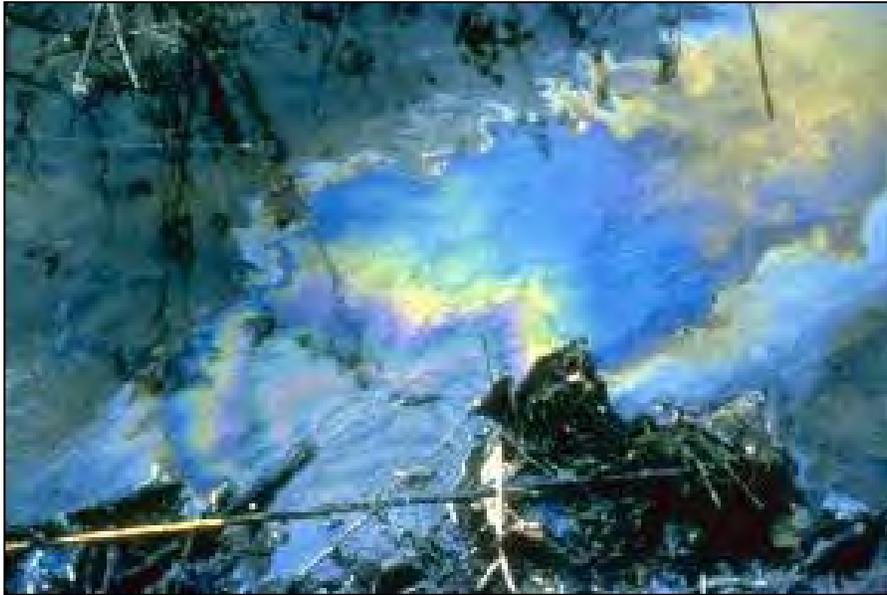


Spill Plan Reviewers Guidance



WSDOT Hazardous Materials Program

March 2016

Overview

Purpose: Spill prevention planning is a key element for protecting the environment during construction. The Spill Plan Reviewer's Guidance is intended to give WSDOT employees an overview of the elements of a spill prevention program that is required by contract provisions ([Standard Specification 1-07.15\(1\)](#)) for all WSDOT construction sites.

[Section 1-2.2J\(1\) of the Construction Manual](#) requires all WSDOT personnel who review Spill Prevention, Control and Countermeasures (SPCC) plans to take the Spill Plan Reviewer training. The content of the course focuses on the overall basics of spill prevention, regulatory reporting requirements and reviewing SPCC Plans to insure compliance with the minimum requirements of the Standard Specification #1-07.15(1). Hazardous Materials (HazMat) Specialists recommend that Spill Plan Reviewers and Project Inspectors take this class every two years as a refresher to stay current on changing requirements. This training is available via e-Learning to WSDOT staff through the [Learning Management System](#).

When reviewing an SPCC plan, be sure to complete the current Reviewers Protocol form to determine whether the contractor has prepared a spill plan that satisfies Standard Specification 1-07.15(1) requirements. If the contractor's SPCC Plan does **not** satisfy the requirements, identify the deficient element(s) on the list provided on the last page of the Reviewer's Protocol form. For documentation purposes, attach a completed copy of this form to the SPCC Plan in the project file.

Information Sources:

- [Standard Specification #1-07.15\(1\)](#)
- [HazMat SPCC WebPage](#)
 - Spill Plan Reviewer's Guidance
 - Spill Plan Reviewers Protocol Checklist

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Introduction

This document provides supplemental information to accompany the SPCC e-Learning course. The content of this document has been written to be all inclusive as an easy reference for WSDOT staff that have taken the e-Learning course and need a refresher prior to reviewing a SPCC plan for their project. This guidance document identifies the requirements, information sources, common SPCC plan errors, key notes, and recommendations.

1-07.15(1) Spill Prevention, Control, and Countermeasures Plan Requirements

WSDOT Standard Specification 1-07.15(1) and project-specific special provisions (if applicable) require a Spill Prevention, Control and Countermeasures Plan (SPCC Plan or Plan) to be developed for each WSDOT project. The purpose of an SPCC Plan is to protect human health and the environment from spills and releases of “hazardous materials,” a generic term used to identify dangerous waste, problem waste, petroleum products, and hazardous substances.

WSDOT Prime Contractor develops the SPCC Plan to satisfy Standard Specification 1-07.15(1) for each specific Project.

The introduction of this [standard specification](#) states the following:

“The contractor shall prepare and implement a project-specific spill prevention, control, and countermeasures plan (SPCC Plan) for the duration of the project. The contractor shall submit the plan to the Project Engineer no later than the date of the preconstruction conference. No on-site construction activities may commence until the contracting agency accepts an SPCC Plan for the project.” A SPCC Plan template and guidance information is available at www.wsdot.wa.gov/environment/hazmat/spillprevention.htm.

The SPCC Plan shall address all fuels, petroleum products, and hazardous materials, as defined in [Chapter 447](#) of the WSDOT Environmental Procedures Manual M 31-11. Occupational safety and health requirements that may pertain to SPCC Plan implementation are contained in, but not limited to, [WAC 296-824](#) and [WAC 296-843](#). The SPCC Plan shall address conditions that may be required by [Section 3406](#) of the current International Fire Code, or as approved by the local Fire Marshal.

Implementation Requirements

The contractor shall update the SPCC Plan throughout project construction so that the written plan reflects actual site conditions and practices. The contractor shall update the SPCC Plan at least annually and maintain a copy of the updated SPCC Plan on the project site. The contractor shall fully implement the SPCC Plan, as accepted and updated, at all times.”

The SPCC plan must have the following 10 elements in order:

1. Responsible Personnel
2. Spill Reporting
3. Project and Site Information
4. Potential Spill Sources
5. Preexisting Contamination
6. Spill Prevention and Response Training
7. Spill Prevention
8. Spill Response
9. Project Site Map
10. Spill Report Forms

The remainder of this document is organized according to the SPCC elements listed above.

Key Notes and Recommendations:

- An SPCC Plan is a site-specific, comprehensive plan written and maintained by the contractor to prevent, respond to, and/or report spills/releases of hazardous materials into the environment.
- Although not required, it is recommended that the WSDOT Prime Contractor executive, project manager, and superintendent sign the SPCC Plan.
- WSDOT staff reviewing SPCC plans should have knowledge of the project boundaries, sensitive areas, type of project work and pre-existing contamination.

1: Responsible Personnel

Standard Spec Requirements:

“Identify the names, titles, and contact information for the personnel responsible for implementing and updating the plan and for responding to spills.”

Additional Information Sources:

- Construction Project Engineering Office

Common Error:

- Contractors do not list subcontractors who are responsible for spill response in Tables 1.

Key Notes and Recommendations:

- If the contractor plans to use a subcontractor, make sure the subcontractor(s) company name(s) and contact information are also included in Table 1.1.
- A subcontractor may be called if there is a large fuel spill that the contractor is not equipped to handle, and/or if there are ignition sources nearby that cannot be shut off. In this case the contractor may just back off because personal safety is always the most important first step. The contractor does need to mention what actions they will take while waiting for the subcontractor to respond.

2: Spill Reporting

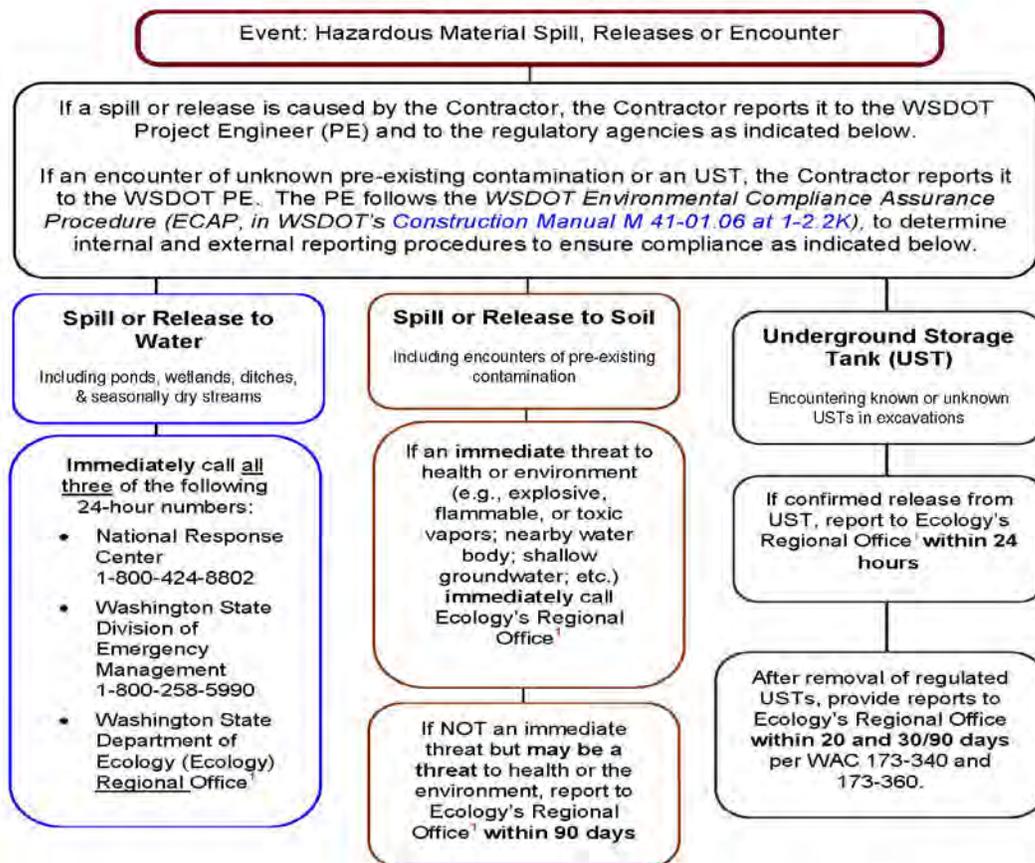
Standard Spec Requirements:

“List the names and telephone numbers of the Federal, State, and Local agencies the contractor shall notify in the event of a spill.”

Additional Information Sources:

- [Ecology Spills Webpage](#)

Figure 2. Regulatory Reporting Requirements Flow Chart



¹ Ecology Regional Office Numbers

Eastern (Spokane): 509-329-3400
Central (Yakima): 509-575-2490

Northwest (Bellevue): 425-649-7000
Southwest (Lacey): 360-407-6300

Ecology regional lines and the type of information needed is provided on Ecology's spill reporting website at <http://www.ecy.wa.gov/programs/spills/other/reportaspill.htm>

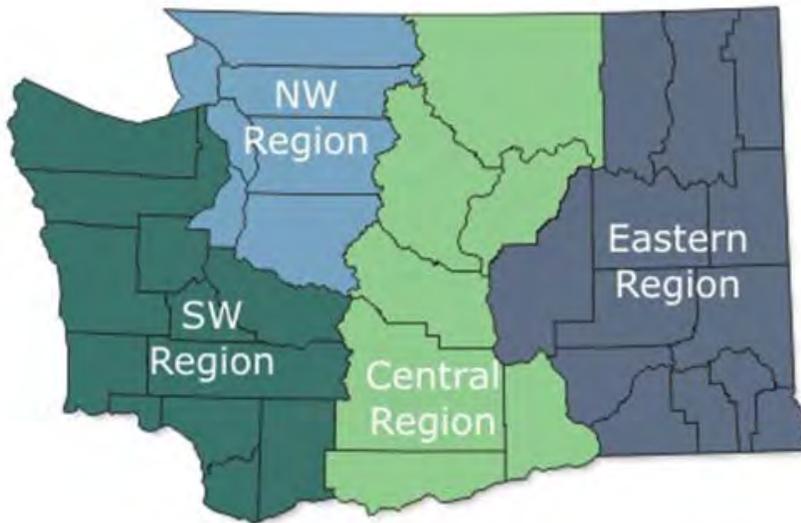
Common Errors:

Contractor forgets to highlight the appropriate Ecology Regional Office number.

Key Notes and Recommendations:

- The spill plan needs to include the correct Ecology Region. See Ecology Region map below to help you verify if the correct region was identified within the spill plan.
- The contractor should delete the numbers that don't apply.

Ecology Region map



WSDOT Region map



3: Project and Site Information

Standard Spec Requirements:

“Describe the following items:

- a. The project work.
- b. The site location and boundaries.
- c. The drainage pathways from the site.
- d. Nearby waterways and sensitive areas and their distances from the site.”

Information Sources:

- Contract/ Temporary Erosion and Sediment Control (**TESC**) plan
- Aerial photos/maps
- Project Documents: Joint Aquatic Resource Permit Application (JARPA), drawings, and permit conditions.
- State Route (SR) View

Notes:

- Pay close attention to the refueling area, the heavy equipment parking area, and the chemical storage areas. Each of these areas may potentially affect sensitive areas, so the contractor should have adequate spill plans and spill response equipment for each location.
- The TESC plan or the permit/drawings should list sensitive areas such as streams and wetlands.
- Aerial photos and topographic maps may help identify drainage pathways. For projects adjacent to sensitive areas, a site visit may be helpful.
- Permit conditions may require hazardous materials storage a specific distance away from streams and wetlands.

Common Error and Key Note:

- Spill Plans often include poorly written project and site descriptions. It should address the entire project limits and all conducted work.

Example:

Table 3 Nearby Waterways¹ and Sensitive Areas²

Waterway¹ or Sensitive Area²	Distance from Project Site	Direction of Flow from Project Site	Runoff Drainage Pathway from Site
Derby Creek	35 feet east of Project Site	downhill towards the northeast	downhill to northeast from the Project staging area to the lower reach of Derby Creek
Milwaukee Ditch	350 feet south of Project site	across the pavement to the east	across the pavement east of the roundabout, into the catch basin, and into Milwaukee Ditch

Notes:

¹ Waterways include streams, creeks, sloughs, rivers, Puget Sound, etc.

² Sensitive areas are areas that typically contain populations that could be particularly sensitive to a hazardous materials spill or release. Such areas include wetlands, areas that provide habitat for threatened or endangered species, nursing homes, hospitals, child care centers, etc. Sensitive areas also include areas where groundwater is used for drinking water, such as wellhead protection zones and sole source aquifer recharge areas.

4: Potential Spill Sources

Standard Spec Requirements:

“Describe each of the following for all potentially hazardous materials brought or generated on-site (including materials used for equipment operation, refueling, maintenance, or cleaning):

- a. Name of material and its intended use.
- b. Estimated maximum amount on-site at any one time.
- c. Location(s) (including any equipment used below the ordinary high water line) where the material will be staged, used, and stored and the distance(s) from nearby waterways and sensitive areas.”



Fuel Tanks

Key Notes and Recommendations:

- EPA's federal SPCC requirements under 40 CFR 112 may apply to facilities that stores more than 1,320 gallons of oil products in above ground containers and has a reasonable possibility of spilling oil to water bodies. Although WSDOT projects are not subject to the federal SPCC requirements, WSDOT refers to this regulation for guidance on preventative measures to stop spills from occurring on projects. If the total amount in the estimated maximum amount of on-site hazardous materials exceeds 1,320 gallons, contact your WSDOT HazMat Specialist to discuss options (see contact list on the last page).
- Talk with the Construction Office or look at the permit drawings to determine if any work will be done below the ordinary high water line. If it will, the plan must identify the materials that will be used for operating, refueling, maintaining, and cleaning the equipment that will be used.



Example:

- Items brought on site, such as vehicles and equipment (generators, chain saws, etc.) containing lubricants and fuels, and above ground storage tanks.
- Hazardous material containers, such as epoxies, glue, solvent, form oil, hardening compounds.
- Contaminated stockpiled soil that is not properly lined and covered.
- Generated waste such as bridge paint chips.
- Unexpected encounters of underground storage tanks or contaminated soil and water.

5: Pre-Existing Contamination

Standard Spec Requirements:

“Describe any preexisting contamination and contaminant sources (such as buried pipes or tanks) in the project area that are described in the Contract provisions and plans. Identify equipment and work practices that shall be used to prevent the release of contamination.”

Additional Information Sources:

- Hazardous Materials Discipline Reports
- Contract documents/TESC Plan
- General Special Provisions / Special Provisions
- Soil management plan
- Water management plan
- Contaminated media management plan



Underground storage tank removal

Common Errors:

The contractor often misses the information provided in the contract documents and is not aware of pre-existing contamination.

Key Notes and Recommendations:

- The spill plan must describe pre-existing contamination if identified in the contract documents (GSP, Special Provisions, plans). If checking the contract documents, look for a Special Provision titled “Removal and Disposal of Hazardous Material.” Such a provision would most likely be under “Division 2 Earthwork,” then under “Removal of Structures and Obstructions” or “Structure Excavation,” and then under “Construction Requirements.”
- If no pre-existing contamination or contaminant sources are described in the Contract documents, this plan component is “not applicable” or N/A.
- The SPCC Plan must identify preventative measures to avoid the release or spreading of contamination. Other project-specific plans may provide information about pre-existing contamination and how to properly manage the materials. If you have any questions, contact the Project Engineer.

Example:

Soil contaminated with petroleum products is suspected near the southeast corner of the intersection of SR 99 and Cordane Street. If soil that is suspected of being contaminated is encountered, it will be stockpiled in the vicinity of the excavation for characterization sampling and determination of disposal options. Soil that is suspected of being contaminated will be stockpiled separately from soil showing no indication of contamination. Soil that is suspected of being contaminated will be stockpiled on an impervious surface and will be set up to allow for ease of sampling and load-out once characterization is complete. Stockpiles of suspected contaminated soil will be covered with plastic sheeting when not being worked; stormwater that could run into the base of such stockpiles will be diverted from the area.



Contaminated ground or surface water collection and treatment in Baker tank.

6: Spill Prevention and Response Training

Standard Spec Requirements:

“Describe how and when all project personnel, including refueling personnel and other Subcontractors, shall be trained in spill prevention, containment, and response and in the location of spill response kits.”

Additional Information Sources:

- [WAC 296-824](#) (Training/Emergency Response)

Key Notes and Recommendations:

- The contractor needs to mention the location of the SPCC plan and the spill kits. They must also mention when spill prevention, containment, and response training will occur. Contractors need to let us know they understand that they must follow L&I guidelines for emergency response.
- Spill Plan Reviewers should not interpret L&I requirements for contractors.

Common Error:

Contract doesn't identify when and how often personnel (including sub contractors) will be trained.



7: Spill Prevention

Spill Prevention Subsections.

Since Spill Prevention has eight required subsections, the format structure is intentionally different for clarity.

Additional Information Sources:

- International Fire Code Section 3406.2
- NPDES Permit
- [Ecology Spill Prevention web page](#)

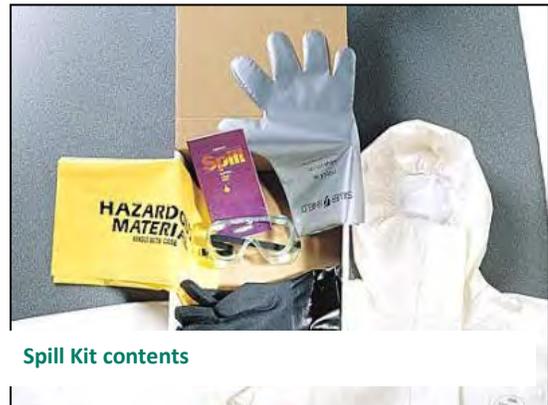
A. Spill response kit contents and location(s).

Standard Spec Requirements:

“The contents and locations of spill response kits that the Contractor shall supply and maintain that are appropriately stocked, located in close proximity to hazardous materials and equipment, and immediately accessible.”

Key Notes and Recommendations:

- Appropriately sized kits need be maintained in close proximity to hazardous materials and equipment and will be immediately accessible to all project employees. Projects with work in sensitive areas typically need more spill kits. Projects within or adjacent to sensitive areas need to include socks.
- Suggested and Common Spill Kit items...
 - Personal protective equipment (PPE) - such as safety glasses, gloves, coveralls, boot covers
 - Spill pads (also called diapers)
 - Absorbent
 - Large Booms
 - Mini booms (also called socks)
 - Catch basin covers
 - Anti-static shovels
 - Garbage bags
 - Plastic sheeting
 - Over-pack or disposal drum
 - Complete copy of SPCC Plan!



- Project inspectors should make sure contractor maintains or restocks the spill kits after incidents.

B. Security measures for potential spill sources.

Standard Spec Requirements:

“Security measures for potential spill sources to prevent accidental spills and vandalism.”

Key Notes and Recommendations:

The spill plan must describe the security measures that will be maintained to prevent vandalism of potential spill sources, e.g., the staging area will be surrounded by a secured fence, hazardous materials will be stored inside a locked storage shed, equipment will be equipped with locked fuel caps, etc.



Example of a fenced/secured area

C. Material storage and secondary containment practices and structures.

Standard Spec Requirements:

“Methods used to prevent stormwater from contacting hazardous materials.”

Key Notes and Recommendations:

The plan should describe the following:

- Secondary containment methods and/or BMPs
- Drip pans or other protective devices will be used for all hazardous material transfer and cleaning operations; and
- Oil and fuel transfer valves and fittings, fuel hoses, and the like will be stored to prevent spills into Waters of the State



Bermed/covered stockpile

The Hazardous Material Program developed a [Secondary Containment](#) focus sheet that provides guidance on the following:

1. What is required?
2. What needs secondary containment?
3. Examples of secondary containment used and maintenance requirements.
4. What encourages compliance?

D. Secondary containment practices and structures.

Standard Spec Requirements:

“Secondary containment for each potential spill source listed in 4, above. Secondary containment structures shall be in accordance with Section S9.D.9 of Ecology’s Construction Stormwater General NPDES Permit, where secondary containment means placing tanks or containers within an impervious structure capable of containing 110 percent of the volume contained in the largest tank within the containment structure. Double-walled tanks do not require additional secondary containment.”

Key Notes and Recommendations:

Make sure the contractor describes the methods that will be used to prevent stormwater contact with hazardous materials, e.g. contaminated soil will be placed on bermed plastic and covered.



Secondary containment for equipment



Double walled fuel tanks do not require secondary containment



Poor secondary containment example

E. Best Management Practices (BMP) Methods

Standard Spec Requirements:

“BMP methods used to prevent discharges to ground or water during mixing and transfer of hazardous materials and fuel. Methods to control pollutants shall use BMPs in accordance with Ecology’s Construction Stormwater General NPDES Permit. BMP guidance is provided in Ecology’s Stormwater Management Manuals, such as [Volume II – Construction Stormwater Pollution Prevention, BMP C153](#), and [Volume IV – Source Control BMPs](#).”



BMPs to prevent discharges to water

Key Notes and Recommendations:

- The contractor needs to describe how BMPs will be used to prevent discharges to groundwater or surface water. The BMPs can be found under the Ecology web link identified in 7E (BMP C153 and source control BMPs). There are several BMPs suggested on Ecology’s website that provide options and allow flexibility (click on links above).
- The plan should describe how hazardous material containers and tanks, fuel hoses, oil or fuel transfer valves and fittings, and the like will be inspected regularly for drips or leaks to prevent spills into State Waters.

F. Refueling equipment below ordinary high water line.

Standard Spec Requirements:

“Refueling procedures for equipment that cannot be moved from below the ordinary high water line.”

Key Notes and Recommendations:

- Make sure the plan describes how hazardous material containers and tanks, fuel hoses, oil or fuel transfer valves and fittings, and the like will be maintained to prevent spills into State Waters.
- If the project submitted a JARPA and is near a stream, the JARPA drawing should indicate the ordinary high water line. You can also get this information from the Construction Project Engineer.

G. Daily equipment and cleanup procedures below ordinary high water line.

Standard Spec Requirements:

“Daily inspection and cleanup procedures that ensure all equipment used below the ordinary high water line is free of all external petroleum-based products.”

Key Notes and Recommendations:

- If no work will be performed below the ordinary high water line, the contractor will write N/A.

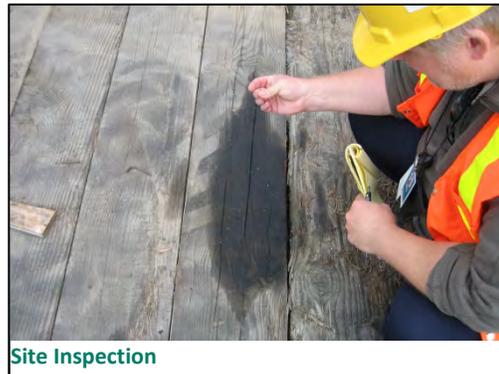
H. Routine equipment inspection and maintenance

Standard Spec Requirements:

“Routine equipment, storage area, and structure inspection and maintenance practices to prevent drips, leaks, or failures of hoses, valves, fittings, containers, pumps, or other systems that contain or transfer hazardous materials.”

Key Notes and Recommendations:

- If no work will be performed below the ordinary high water line, the contractor is directed to write N/A.
- The contractor should describe refueling procedures for equipment that cannot be moved from below the ordinary high water line.



I. Site inspection

Standard Spec Requirements:

“Site inspection procedures and frequency.”

Key Notes and Recommendations:

- Inspection frequency should be site specific and tailored to the type of project work and the potential of hazardous materials reaching Waters of the State. For example: A project conducting bridge work that is over a water body may want to inspect the site before, during and after the work shift; whereas a paving job conducting work with no known sensitive areas may indicate that inspection before and after the work shift is sufficient.

8: Spill Response

Standard Spec Requirements:

“Outline the response procedures the contractor shall follow for each scenario listed below, indicating that if hazardous materials are encountered or spilled during construction, the contractor shall do everything possible to control and contain the material until appropriate measures can be taken. Include a description of the actions the contractor shall take and the specific on-site spill response equipment that shall be used to 1) assess the spill, 2) secure the area, 3) contain and eliminate the spill source, 4) clean up spilled material, decontaminate equipment, and dispose of spilled and contaminated material:

- a. A spill of each type of hazardous material at each location identified in 4, above.
- b. Stormwater that has come into contact with hazardous materials.
- c. A release or spill of any preexisting contamination and contaminant source described in 5, above.
- d. A release or spill of any unknown preexisting contamination and contaminant sources (such as buried pipes or tanks) encountered during project work.
- e. A spill occurring during work with equipment used below the ordinary high water line.



Socks prevent material from reaching storm drain



Pads absorb liquid

If the contractor will use a subcontractor for spill response, provide contact information for the subcontractor under item 1 (above), identify when the subcontractor shall be used, and describe actions the contractor shall take while waiting for the subcontractor to respond.”

Additional Information Sources:

- Spill Plan Sections 4 and 5.
- Project contract.

Common Errors:

- The Contractor does not address all hazardous materials listed in Element 4 or identifies how they plan on responding to a potential spill from these materials brought on site.

Key Notes and Recommendations:

- If pre-existing contamination or contaminant sources were not identified in section 5, the contractor may either write N/A or delete table 8C from the spill plan.
- Information required by SPEC 7D and 7E needs to be included in this part of the spill plan.
- If no equipment will be used below the ordinary high water line, the contract can either write N/A or delete table 8E from the spill plan.
- The contractor can combine spill response procedures for multiple materials as long as each material is clearly identified.

9: Project Site Map

Standard Spec Requirements:

“Provide a map showing the following items:

- a. Site location and boundaries.
- b. Site access roads.
- c. Drainage pathways from the site.
- d. Nearby waterways and sensitive areas.
- e. Hazardous materials, equipment, and decontamination areas identified in 4, above.
- f. Preexisting contamination or contaminant sources described in 5, above.
- g. Spill prevention and response equipment described in 7 and 8, above.”

Additional Information Sources:

- Spill Plan Sections 4, 5, 6, and 7.
- Contract documents/TESC plan.
- SR View
- Aerial photos/Topographic maps.

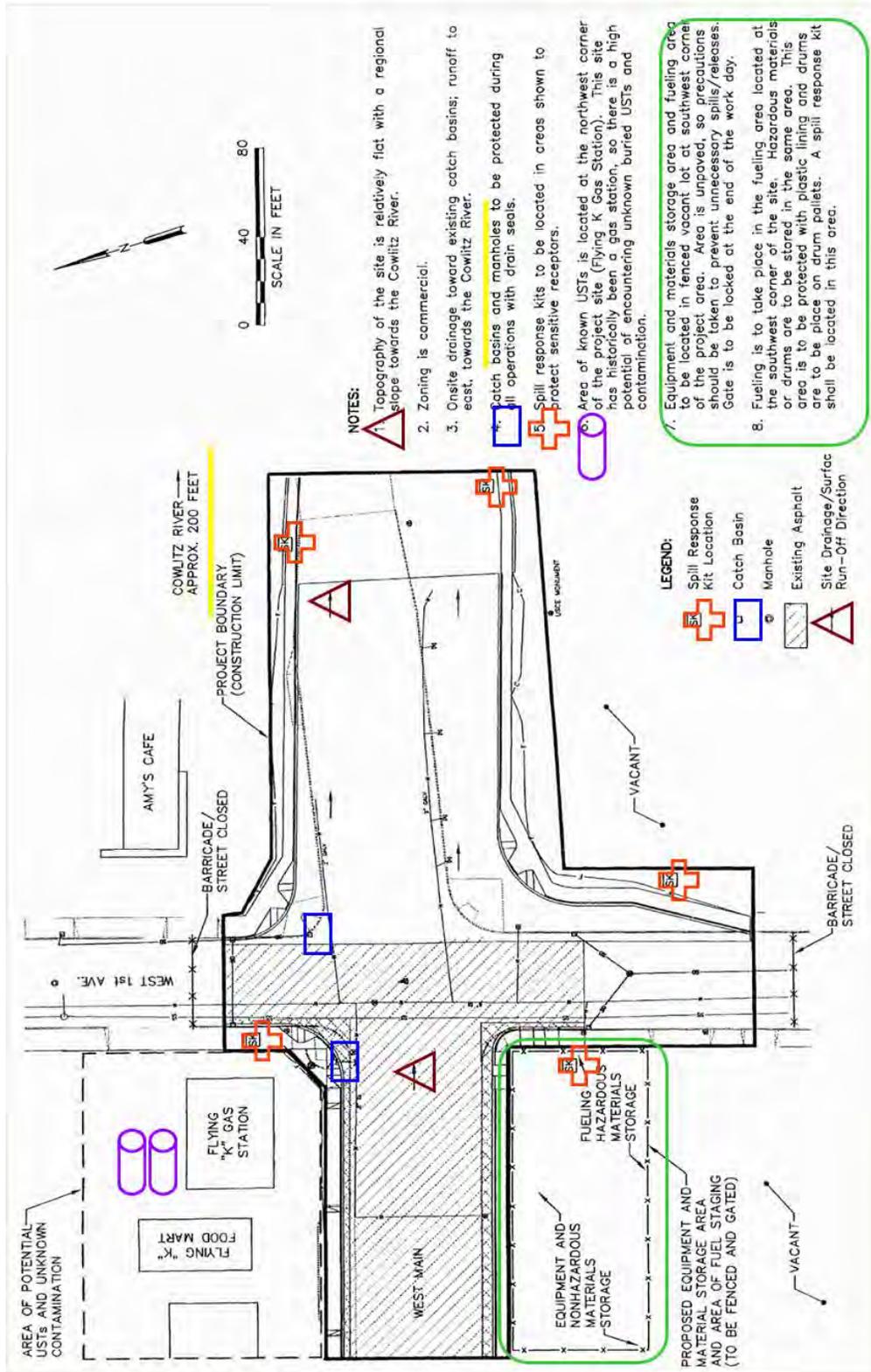
Common Errors:

- Contractors often don’t include all required items on the Project Site Map. They often miss drainage pathways from site, nearby waterways and sensitive areas, and the locations of spill kits.

Key Notes and Recommendations:

- This is one of the most important elements of the entire plan.
- Waterways include streams, creeks, sloughs, rivers, Puget Sound, etc.
- Sensitive areas are areas that typically contain populations that could be particularly sensitive to a hazardous materials spill or release. Such areas include wetlands, areas that provide habitat for threatened or endangered species, nursing homes, hospitals, child care centers, etc. Sensitive areas also include groundwater, when used for drinking water, such as wellhead protection zones and sole source aquifer recharge areas.
- For more complex projects, a site visit is recommended to help determine drainage pathways.

Example:



10: Spill Report Forms

Standard Spec Requirements:

“Provide a copy of the spill report form(s) that the contractor shall use in the event of a release or spill.”

Additional Information Sources:

First page from template listed below. For more pages, open the template or the spill report form on the [SPCC webpage](#).

Key Notes and Recommendations:

Contractor should attach a spill report form.

Example:

SPILL OR INCIDENT REPORT FORM

Instructions: Complete for any type of petroleum product or hazardous materials/waste spill or incident. Provide a copy of this report to management.

1. WSDOT Personnel Involved in Spill Reporting:

Project Office: Name, Title, and Phone Number: _____

Regional Environmental Office: Name, Title, and Phone Number: _____

2. Contractor

Name and Title of Person Responsible for Spill Response: _____

Phone Number: _____

3. General Spill Information:

Common Name of Spilled Substance: _____

Quantity Spilled (Estimate): _____

Describe Concentration of Material (Estimate): _____

Date of Spill: ____ / ____ / ____

Time Spill Started: ____ AM ____ PM

Time Spill Ended: ____ AM ____ PM

4. Spill Location and Conditions:

Project Title: _____

Street Address and/or Milepost, City: _____

Weather Conditions: _____

If Spill to Water,

Name of Water Body (if ditch or culvert, identify the water body that the structure discharges to): _____

Identify the Discharge Point: _____

Estimate the Depth and Width of the Water Body: _____

Estimate Flow Rate (i.e. slow, moderate, or fast): _____

Describe Environmental Damage (i.e., fish kill?): _____

5. Actions taken:

To Contain Spill or Impact of Incident: _____

To Cleanup Spill or Recover from Incident: _____

To Remove Cleanup Material: _____

To Document Disposal: _____

To Prevent Reoccurrence: _____

Hazardous Material Specialist Contact List



Please contact the Headquarters Hazardous Materials Program at 360-570-6656.