CITY OF KELSO
MUNICIPAL STORMWATER ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) PROGRAM
2021

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CROSS REFERENCE WITH MUNICIPAL STORMWATER NPDES PERMIT

TABLE OF REVISIONS AND REVIEWS

DATE	COMMENTS
09-28-2011	Approved by Kelso Stormwater Advisory Committee
12-15-2014	Updated to Comply with 2013-2018 NPDES Western Washington Phase II Municipal Stormwater Permit
02-03-2021	Updated to Comply with 2019-2014 NPDES Western Washington Phase II Municipal Stormwater Permit

PURPOSE, GOAL, AND APPROACH

PURPOSE

This Municipal Stormwater Illicit Discharge Detection and Elimination (IDDE) program was written to comply with the Western Washington Phase II Municipal Stormwater Permit (Permit); specifically, section S5.C.5. This manual is intended to establish and guide internal policy, procedures, training, scheduling and to document those items that are already in place.

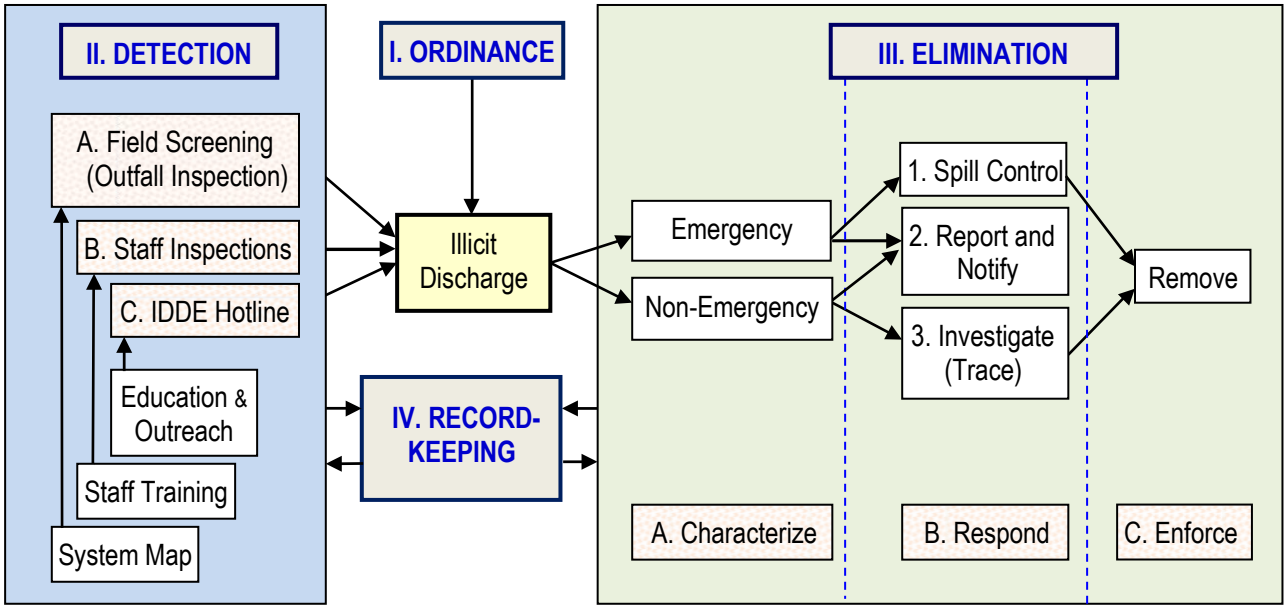
GOAL

Prevent, detect and remove illicit connections, illicit discharges and spills into Kelso's municipal separate storm sewer system (MS4).

APPROACH

A. This program is a subcomponent of the City's Stormwater Management Program (SWMP).
B. It will be reviewed periodically, but no less often than once per permit cycle, by the Community Development Department, and updated as necessary to maintain compliance, keep current, capture lessons learned, and to otherwise ensure effectiveness.
C. It incorporates or relies upon the following:
    - All requirements of Section S5.C.5 of the Permit
    - Other elements of the SWMP
    - Kelso Municipal Code (KMC) 13.09 – Stormwater Management
    - *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Center for Watershed Protection, October 2004 (CWP IDDE Manual)
    - *Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual*, by Herrera for Washington Department of Ecology, May 2013 (Herrera IDDE Guide)
    - Various Ecology publications, including #07-10-089 "Reporting Discharge and Spills under the Municipal Stormwater NPDES Permits" and "IDDE Field Training Guidance Elements Checklist"

D. The City's IDDE strategy is organized as shown below:



Numbered and lettered items in the diagram above correspond to sections in the document, below.

OVERVIEW

The City of Kelso is located on Interstate 5, at the confluence of the Cowlitz, Coweeman and Columbia Rivers and serves a population of about 12,000 people. The MS4 discharges to the Coweeman and Cowlitz Rivers and three diking improvement districts — Consolidated Diking Improvement District #1 (CDID#1), Consolidated Diking Improvement District #3 (CDID#3) and Diking Improvement District #1 (DID#1).

To protect these waters from illicit discharges, this program includes the following main elements: Geographical Information System (GIS) mapping, municipal code prohibiting non-stormwater discharges into the MS4, enforcement, detection and elimination, education and outreach, and training and adaptive management.

Local IDDE aids include:

- Coordination with the other permittees (City of Longview, Cowlitz County, and CDID#1).
- A sanitary sewer system that serves all but a small handful of developed properties.
- Geographically insular community with its own radio and print market – making outreach more cost effective and easier to plan.
- ALS Environmental, a nationally accredited, award-winning, full-service laboratory located in Kelso.

Note: Action items found in this manual are prioritized as shown in the example below . . .

"IDDE-cN1"

IDDE – Associates the action item with this manual, as opposed to other portions of the SWMP.
c – The subsection of the S5.C.5 of the Permit, in this case the requirement comes from S5.C.5.c of the Permit, which deals with the Ordinance.
N – Indicates whether the action item is Required or Not required by the Permit.
1 – Self explanatory. In this case, the action item is the first in its category.

I. ORDINANCE

NPDES Permit Requirement: S5.C.5.c (Ordinance and Enforcement)
Implement and enforce an ordinance that prohibits non-stormwater discharges, and i. Allows certain non-stormwater discharges (most groundwater, A/C condensate, emergency firefighting, etc.). ii. Conditionally allows certain non-stormwater discharges (de-chlorinated potable and pool water, etc.). iii. Further addresses each category in c.i and c.ii if identified as significant sources of pollution. iv. Includes escalating enforcement procedures.

Compliance Status

The Kelso City Council adopted Ordinance No. 09-3713, Illicit Discharge – Stormwater Utility, on 8/18/2009. It was codified as Kelso Municipal Code (KMC) Chapter 13.11. The code prohibits non- stormwater discharges into the MS4, and it provides a schedule of escalating enforcement for violations.

In 2017, Ordinance No. 09-3713 was repealed and replaced by Ordinance No. 17-3895 to include allowable discharges, conditionally allowable discharges, and references to the current edition of the *Stormwater Management Manual for Western Washington*. It was codified as KMC Chapter 13.09. The current code meets the requirements of section S5.C.5.c in the 2019 Western Washington Phase II Municipal Stormwater Permit.

Task ID	**PLANNED ACTIVITIES**	Date
IDDE-cR1	Continue enforcing KMC 13.09 with a positive, professional approach.	Ongoing
IDDE-cN1	Maintain a copy of Ordinance No. 17-3895 to mark up with potential revisions.	Ongoing

II. DETECTION

A. FIELD ASSESSMENTS (SCREENING)

NPDES Permit Requirement: S5.C.5.d (Field Screening)
The SWMP will include a program to detect and identify non-stormwater and illicit discharges/connections, including: i. Procedures for conducting investigations of the MS4 must use a methodology at least as effective as that described in the Herrera *Illicit Discharge Field Screening and Source Tracing Guidance Manual*. • Screen an average of 12% of the MS4 per year beginning August 1, 2019.

Compliance Status

The City implemented a field screening procedure in 2015. The field methodology chosen for investigating the storm sewer system is outfall inspection. The City will inspect 12% of the MS4 annually by inspecting outfalls. Using IDDE-SOP1 (see Appendix A), outfalls will be screened during dry weather.

Task ID	**PLANNED ACTIVITIES**	Date
IDDE-dR1	Screen an average of 12% of the MS4	Annually

II. DETECTION

A. FIELD ASSESSMENTS (SCREENING)

1. MS4 MAPPING

NPDES Permit Requirement: S5.C.4 (MS4 Mapping and Documentation)
Continue to maintain a Storm Sewer System map that: a. Ongoing Mapping: i. Shows the location of known MS4 outfalls and discharge points. ii. Shows receiving waters. iii. Shows structural stormwater BMPs that are owned or maintained by the City. iv. Shows tributary conveyances to all known outfalls ≥24". v. Shows all connections authorized after February 16, 2007. vi. Connections between MS4 owned or operated by the City and other municipalities or public entities. b. New Mapping: i. Includes size and material of known MS4 outfalls. ii. Shows all connections from the MS4 to a privately owned stormwater system. c. Can be provided to Ecology upon request. d. Is electronic with fully described mapping standards. e. Can be provided to Indian Tribes, municipalities, and other permittees upon request.

Compliance Status

The City's consultant completed a thorough stormwater Geographic Information System (GIS) containing records of the City's MS4 in 2012. Key GIS layers include catch basins, manholes, culverts, outfalls, public structural stormwater Best Management Practices (BMPs), drainage sub-basins, and the type, material, and size of conveyances. Other stormwater layers include roadside ditches, CDID#1, CDID#3, DID#1 conveyances and their pump stations.

Task ID	**PLANNED ACTIVITIES**	Date
IDDE-aR1	Map MS4 features not included in the original GIS.	Ongoing
IDDE-aR2	Map new City-owned facilities as they are constructed.	As Needed
IDDE-aN1	Correct errors in the GIS.	Ongoing
IDDE-bR1	Map connections from the MS4 to privately owned stormwater system.	8/2023
IDDE-cR1	Prepare fully described mapping standards.	8/2021

II. DETECTION

B. STAFF OBSERVATIONS AND INSPECTIONS (TRAINING)

NPDES Permit Requirements: S5.C.5.d.iii and S5.C.5.f (Training)
S5.C.5.d.iii. Develop and implement an ongoing training program for all municipal field staff, who, as part of their normal job responsibilities, might come into contact with or otherwise observe an illicit discharge or illicit connection to the storm sewer system, on the identification of an illicit discharge/connection, and on the proper procedures for reporting and responding to the illicit discharge/connection. Provide follow-up training as needed. Document and maintain records of the training provided and the staff trained. S5.C.5.f Ensure that all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, and illicit connections, are trained to conduct these activities. Follow-up training shall be provided as needed. Document and maintain records of the training provided and the staff trained.

Compliance Status

S5.C.5.d.iii

Tailored training was provided to staff that might come into contact or observe an ID/IC as part of their usual job responsibilities in the field. Both Police and Operations Department staff were trained in detection of potential ID/IC. At a minimum, the training covered how to recognize, report, and respond to a spill or other ID/IC.

Training will be updated and repeated when IDDE procedures change or with every permit cycle, whichever is more frequent. New employees who have field responsibilities will be trained upon hire. Training records are kept for a minimum of 5 years.

S5.C.5.f

The NPDES Coordinator is the only City employee charged with the technical duties described in S5.C.5.f, which require training. The NPDES Coordinator has studied the following materials:

- CWP IDDE Manual.
- Herrera IDDE Manual.
- Environmental Protection Agency (EPA) web cast presentations including: Developing Your IDDE Program (IDDE 101); Conducting Illicit Discharge Detection and Elimination; Investigations (IDDE 201); and Finding and Fixing Illicit Discharges and Connections (IDDE 301).
- The Phase II Municipal Stormwater NPDES Permit.
- KMC 13.09 (Stormwater Management).

Safety is the primary consideration when using the selected outfall inspection field methodology for locating suspected illicit discharges and illicit connections. Potential hazards when conducting outfall inspections include contact with hazardous substances and hazards from traffic. See IDDE-SOP8, Safety and Access, in Appendix A for more information.

Task ID	**PLANNED ACTIVITIES**	Date
IDDE-dR1	Provide follow-up training to municipal field staff to detect and respond to potential illicit discharges and illicit connections.	As Needed
IDDE-dR2	Train new municipal field staff upon hire.	As Needed
IDDE-dR3	Update training materials for field staff in accordance with the 2019-2024 Permit.	July 2024
IDDE-fR1	Obtain continuing education for NPDES Coordinator on field screening methodologies, source tracing, and elimination of illicit connections and illicit discharges.	Ongoing

II. DETECTION

C. HOTLINE (PUBLIC EDUCATION)

NPDES Permit Requirements: S5.C.5.b and S5.C.5.d.ii (Public Education)
S5.C.5.b Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. S5.C.5.d.ii List and publicize a hotline or other telephone number for public reporting of spills and other illicit discharges.

Compliance Status

The Kelso Stormwater Hotline (360-423-6590 during business hours and 360-423-5730 after hours) and the Longview-Kelso Stormwater Hotline (360-578-0900) were each established in 2008, as required by a previous Permit, and have been continuously operated and listed ever since. The Kelso hotline has been listed in every edition of the area telephone book since 2008 and is publicized periodically in all traditional media formats.

In October 2011, letters were sent to all water/sewer bill recipients in Kelso regarding the IDDE ordinance and illicit discharge problems. The City's stormwater website, https://www.kelso.gov/engineering/stormwater, includes a stormwater incident report form that allows citizens to report spills, illicit discharges, and illicit connections.

IDDE-SOP2, provided in Appendix A, describes call-out procedures.

Reports from the hotline are entered into WQWebIDDE. The log is used to track calls and follow-up actions in accordance with S5.C.5.g. See IDDE-SOP9 in Appendix A for procedures for recordkeeping.

As illicit discharges are reported and investigated, the City educates individual businesses and citizens of the hazards associated with illicit discharges and improper disposal of waste.

The requirement to inform public employees is met through training, discussed in S5.C.5.d.iii (previous page).

Task ID	**PLANNED ACTIVITIES**	Date
IDDE-bR1	Continue IDDE tracking, training, and public outreach efforts.	Ongoing
IDDE-dR1	Continue hotline, IDDE tracking, training, and public outreach efforts.	Ongoing

III. ELIMINATION

NPDES Permit Requirement: S5.C.5.e (Characterize, Respond, Enforce)

The SWMP will include an ongoing program designed to address illicit discharges, including spills and illicit connections, into the storm sewer system, including:

i. Procedures for characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges found by or reported to the Permittee. Procedures shall include detailed instructions for evaluating whether the discharge must be immediately contained and steps to be taken for containment of the discharge.

ii. Procedures for tracing the source of an illicit discharge; including visual inspections, and when necessary, opening manholes, using mobile cameras, collecting and analyzing water samples, and/or other detailed inspection procedures.

iii. Procedures for eliminating the discharge; including notification of appropriate authorities; notification of the property owner; technical assistance; follow-up inspections; and use of the compliance strategy developed pursuant to S5.C.5.c.iv, including escalating enforcement and legal actions if the discharge is not eliminated.

iv. Compliance shall be achieved by meeting the following timelines:

a) Immediately respond to all illicit discharges, including spills, which are determined to constitute a threat to human health, welfare, or the environment, consistent with General Condition G3.

b) Investigate, or refer to appropriate agency with authority to act, within 7 days, on average, any complaints, reports or monitoring information that indicates a potential illicit discharge.

c) Initiate an investigation within 21 days of any report or discovery of a suspected illicit connection to determine the source of the connection, the nature and volume of discharge through the connection, and the party responsible for the connection.

d) Upon confirmation of an illicit connection, use the compliance strategy in a documented effort to eliminate the illicit connection within 6 months. All known illicit connections to the storm sewer system shall be eliminated.

Compliance Status

The City has developed a program to address illicit discharges. Procedures include investigation, documentation, discharge removal, and enforcement. Various standard operating procedures (SOPs) were developed and are listed below. The SOPs are included in Appendix A.

A. Characterization.....IDDE-SOP3
B. Response
   1. Spill Control IDDE-SOP4
   2. Reporting/Notifications IDDE-SOP5
   3. Investigations (Tracing).....IDDE-SOP6
C. Enforcement (Removal)
   1. Enforcement.....IDDE-SOP7
   2. Safety and Access….....IDDE-SOP8
D. Recordkeeping IDDE-SOP9

Safety is the primary consideration when addressing illicit discharges. Potential hazards when addressing suspected illicit discharges and illicit connections include exposure to hazardous substances and hazards from confined space entry.

Task ID	**PLANNED ACTIVITIES**	Date
IDDE-eR1	Maintain program documentation, including this manual and Standard Operating Procedures, for addressing illicit discharges and illicit connections.	Ongoing
IDDE-eR2	When a potential illicit discharge or illicit connection is reported or identified, ensure compliance with the timelines for responding outlined in this section of the permit.	As Needed

IV. RECORDKEEPING

NPDES Permit Requirement: S5.C.5.g (Recordkeeping)
Track and maintain records of activities conducted to meet requirements of S5.C.5. Track and submit data for the illicit discharges, spills, and illicit connections, including those that were found by, reported to, or investigated by the City.

Compliance Status

Since February 2008, records of illicit discharges, including spills, and inspections have been logged into the Kelso IDDE Log. As of March 31, 2021, these records have been logged using the WQWebIDDE website provided by the Department of Ecology. A summary of activities is included in the annual report.

This manual is a working document. It is reviewed and revised periodically to keep it current and accurate. Records are kept in accordance with S9 of the Phase II Municipal Stormwater Permit using IDDE-SOP9.

Task ID	**PLANNED ACTIVITIES**	Date
IDDE-gR1	Maintain records of activities conducted to meet requirements of S5.C.5.	Ongoing
IDDE-gR2	Submit data for the illicit discharges, spills, and illicit connections, including those that were found by, reported to, or investigated by the City, to WQWebIDDE.	Ongoing

APPENDIX A

Standard Operating Procedures (SOPs)

1. **IDDE-SOP1 – Field Screening**
2. **IDDE-SOP2 – Longview/Kelso Stormwater Hotline Call-out Procedures**
3. **IDDE-SOP3 – Characterization**
4. **IDDE-SOP4 – Response, Spill Control**
5. **IDDE-SOP5 – Response, Reporting/Notifications**
6. **IDDE-SOP6 – Response, Investigations (Tracing)**
7. **IDDE-SOP7 – Enforcement (Removal)**
8. **IDDE-SOP8 – Safety and Access**
9. **IDDE-SOP9 – Recordkeeping**

Note: All SOPs are requirements under the Permit, depending on the conditions. For example, if a citizen complies with clean-up of an illicit discharge due to City education efforts, then enforcement is not necessary.

IDDE-SOP1 – Field Screening

Safety and Access
Fully adhere to SOP-IDDE8, Safety and Access.

Planning
- Understand the CWP IDDE Manual; specifically, its Outfall Reconnaissance Inventory (ORI) field sheets and its procedures in Sections 11.1, 11.3 – 9, 12.1 – 2, and 12.5.
- Understand the Herrera IDDE Manual, the section on Outfall Inspections in Chapter 3.
- Inspect only during dry weather (with no precipitation that produces in runoff in the preceding 48 hours, typically in the summer).
- Conduct inspections with a two-person crew.
- Use desktop analysis methods to select outfalls for screening.

Procedure
- Use the Trimble GPS unit to locate the outfall (capture/correct points if necessary).
- Mark the Outfall ID on the dry erase board, then photograph the outfall with the dry erase board for identification.
- Capture other photographs is necessary to document physical indicators.
- Complete the Outfall Screening field sheet.
- If a suspected illicit discharge or illicit connection is discovered (tracers, dry weather flow, etc.), then assess the risk using IDDE-SOP3 and immediately follow any Spill Control and Emergency Notification procedures that may be required in accordance with IDDE-SOP4 and IDDE-SOP5. For non-emergency situations, flag the outfall, and return to trace at a later date in accordance with IDDE-SOP6.
- Return Outfall Screening sheets to office staff for recordkeeping in accordance with IDDE-SOP9, Recordkeeping.

Equipment List
- □ Personal Protective Equipment (PPE) (refer to SOP-IDDE8)
- □ City ID
- □ System map
- □ GPS unit
- □ Outfall Screening field sheets
- □ Digital camera (spare batteries)
- □ Flashlight (spare batteries)
- □ Watch
- □ Calculator
- □ Machete
- □ Cell phone
- □ Tape Measure
- □ Dry erase board and pens
- □ Clip board and pencils

Sampling & Monitoring Gear
- □ Disposable gloves
- □ First aid kit
- □ Hand sanitizer
- □ Temperature probe
- □ pH probe
- □ Ammonia test strips
- □ Five 1-liter sample bottles
- □ Permanent marker
- □ Cooler

IDDE-SOP2 – Kelso/Longview Stormwater Hotlines Call-out Procedures

Kelso has two Stormwater Hotlines: one is for Kelso only, 360-423-6590 (after hours at 360-423-5730), and the other, 360-578-0900, is shared with the City of Longview.

Kelso Stormwater Hotline Call Out Procedure (Business Hours)

The Kelso Stormwater Hotline at 360-423-6590 is answered by Community Development staff during business hours. Calls are directed to the NPDES Coordinator, Catherine Morey. During business hours she will investigate, educate, and enforce as needed and document the incident in WQWebIDDE.

Longview/Kelso Stormwater Hotline Call Out Procedure (After Hours)

After hours, calls to 360-423-5730 and 360-578-0900 are answered by Advanced Messaging and Dispatch, which is contracted through the City of Longview to operate the Longview Public Works after-hours line and Longview/Kelso Stormwater Hotline.

<u>For spills and/or unique events with potential to threaten safety or the environment</u>.

1. Ask the following questions:
   - What is your name?
   - How can we get back to you?
   - Where is the spill?
   - What is spilled?
   - How much spilled?
   - Who spilled the material?
   - Is anyone cleaning up the spill?
   - Can the spill reach a storm drain and/or the environment?
   - Have wildlife impacts been observed (e.g. dead fish, oiled birds, etc.)?
2. Ask caller:

   "Could the City be responsible for the incident [for example, is it a spill from City vehicles/equipment, was it on City property (excl. the Right-of-Way), or was it possibly caused by contractors working on behalf of the City]?"
3. If yes, tell the caller: "I will promptly notify the appropriate City official after this call."
4. If the spill threatens the environment, say:

   "Thank you. I will now patch you through to 911," and then do so.
5. Otherwise, say:

   "Thank you. I will forward this information to the City for their review by the next business day."
6. If the City could be the responsible party; then, immediately call:
   A. For incidents in Kelso: Catherine Morey 360-423-6590 office.
   B. For incidents in Longview call: Steve Warner 360-442-5299 office, 360-957-2720 cell, or 503-397-0996 home.
   C. If unable to contact the designated City representative within 15 minutes, leave a message, and call <u>all three</u> of the following to report the spill:
      - National Response Center (NRC): 800-424-8802
      - WA Emergency Management Division (Ecology's Spill Response Team): 800-258-5990

- Ecology Regional Office: 360-407-6300

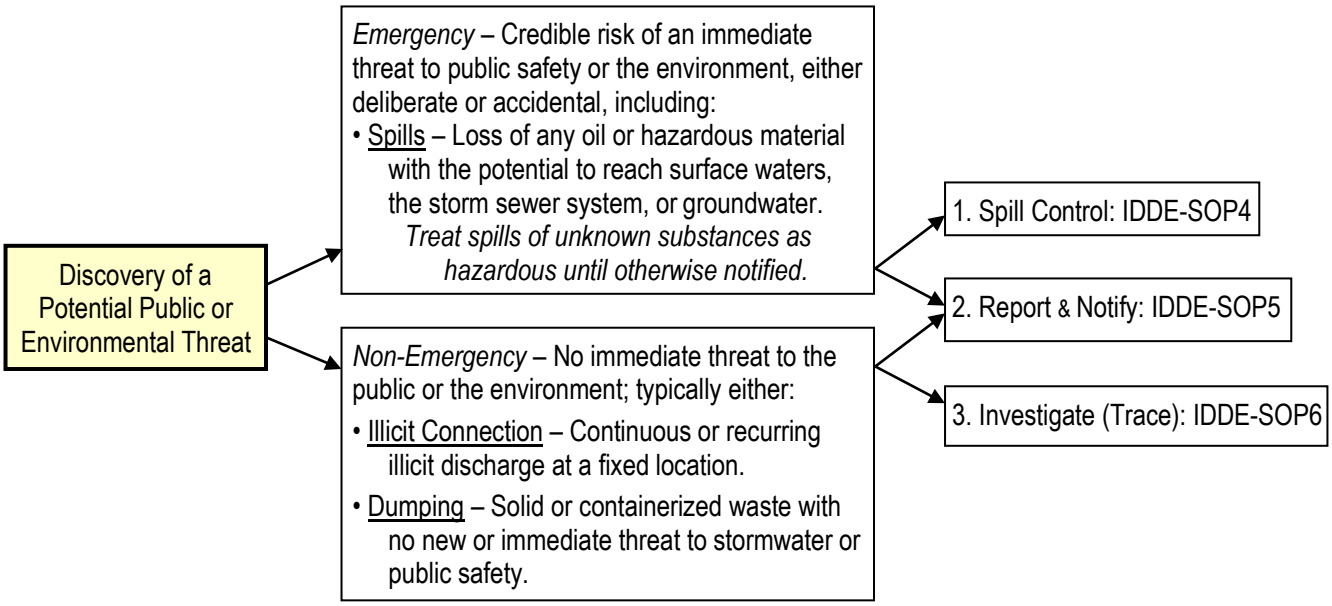
7. Log the incident, and report it to the customer the next business day.

<u>For illicit discharges, conditions with no new or immediate threat to the environment, such as illegal dumping or connections to storm sewer, and/or general practices that may harm water quality.</u>

1. Longview: Call Steve Haubner 360-422-5210 or 360-957-8000
2. Kelso: Call Catherine Morey 360-423-6590

IDDE-SOP3 – Characterization

CHARACTERIZATION OF MATERIALS IS A COMPLICATED ENDEAVOR SUBJECT TO MANY FEDERAL AND STATE REGULATIONS AND WHICH MUST BE COMPLETED BY PROPERLY TRAINED PROFESSIONALS. THIS SOP REPRESENTS A BEST ATTEMPT TO COMPLY WITH THE MUNICIPAL STORMWATER NPDES PERMIT AND PROVIDE BASIC GUIDANCE TO A DIVERSE GROUP OF PUBLIC EMPLOYEES WHO MAY WORK IN THE FIELD.



Considerations

1. Safety and Access: See IDDE-SOP8.
2. Amount: Is the amount changing; Can you estimate the amount or rate of loss?
3. Source: Can it be stopped? Where is it from? Is it an accident, illicit discharge, or vandalism? How large is the discharge pipe? Could the City be responsible party (see IDDE-SOP5)?
4. Potential for Discharge / Mobility: Where is it going (or is it contained)? How far to the storm sewer, surface water, or groundwater?
5. Frequency: Continuous, intermittent, single event?
6. Hazard Types: Flammable (incl. explosive), corrosive (acidic or basic), reactive (incl. pressure), toxic (including persistent), or unknown.
7. Exposure Pathway: Inhalation, ingestion, absorption, and injection.
8. Other Physical Descriptors: Labels and placards, bill of lading [shipper, transporter, vendor, and/or manufacturer information], phase (gas, liquid, solid), odor, color, turbidity, viscosity, water miscibility, smoking/fuming/boiling/audible, suds, sheen, floatables, or damage/staining of the container or the affected area.

Common Examples

1. Spills: Auto fluids (typically from an accident, hydraulic failures, or poor maintenance)
2. Illicit connection: Sanitary, floor, or process water drains to the storm sewer
3. Dumping: Drums, pails, manure, garbage, yard waste
4. Illicit Discharges: Residential, commercial, industrial

A. *Only stormwater is allowed to discharge to municipal storm sewers & receiving waters.*
B. Exceptions: Clean groundwater, NPDES permitted discharges, emergency fire-fighting waters, air conditioner condensate, and agriculture irrigation.
C. Conditionally allowed discharges:
    - Potable water: if dechlorinated to ≤0.1-ppm Cl_2 and releases are controlled as necessary to prevent re-suspension of silt [e.g. hydrant flushing, pipeline disinfection and pressure testing].
    - Lawn and landscape irrigation: minimize through water conservation & public ed.
    - Swimming pool discharges: if dechlorinated, pH-adjusted, re-oxygenated, and controlled release. Pool cleaning wastewater and filter backflush is prohibited.
    - Street & sidewalk wash water, dust-control water, and building wash: if detergent-free. Reduce discharges through public education and best management practices (BMPs) such as sweeping before washing and minimizing water used.
    - Construction site dewatering: if handled per an approved plan.

CWP IDDE Resources
1. Sections 1.1, 11.8, 11.7, 11.8, 12.1, 12.4, and 12.7.
2. Tables 1, 27, 39, 45, 46, 47, and 51.
3. Figure 47

IDDE-SOP4 – Response, Spill Control

SPILL CONTROL OF POTENTIALLY HAZARDOUS MATERIALS IS A COMPLICATED ENDEAVOR SUBJECT TO MANY FEDERAL AND STATE REGULATIONS AND WHICH IS BEST COMPLETED BY TRAINED PROFESSIONALS. THIS SOP REPRESENTS A BEST ATTEMPT TO COMPLY WITH THE MUNICIPAL STORMWATER NPDES PERMIT AND PROVIDE BASIC GUIDANCE TO A DIVERSE GROUP OF FIRST RESPONDERS.

Response, Clean-up, and Disposal

1. Safety and Access: See IDDE-SOP8. Wear PPE.
2. Equipment/Supplies: Maintain a spill kit of the following:
   - Personal Protective Equipment
   - Absorbents such as Amerizorb
   - A variety of absorbent pads (oil, chemical, acid)
   - Some absorbent socks
   - (2) flexible drain covers
   - Cones
   - Plastic garbage bags
   - Broom & pan
   - Laminated IDDE-SOP4 (this SOP) and IDDE-SOP5 – Response, Reporting/Notification
3. Assess: Use IDDE-SOP3 to help determine if immediate controls and/or additional resources (including emergency services and/or a spill contractor) are needed to protect health or environment. If there is no threat, then address the problem at the first opportunity, the next working day.
4. Advise
   - ***For dangerous and emergency situations*, call 911** immediately, then notify your supervisor (or safety representative), report to City and Ecology following IDDE-SOP5. Keep 911 Dispatch, other City personnel arriving on scene, and Ecology apprised of site conditions.
   - *For non-hazardous and non-emergency situations*, notify your supervisor, report to City and Ecology following IDDE-SOP5.
5. Control
   - If possible and safe, stop or contain the source of the flow.
   - If safe, block pathways to the storm sewer system and to receiving waters (e.g. use drain covers or absorbent socks to block entry of the spill into a catch basin).
6. Clean-up
   - *Minor Incidents*: Depending on the identification and concentrations of the waste, most of the waste generated from a small spill incident is compatible with garbage. Debris from the hotspot of typical oil-related clean-ups (hydraulic oil, greases, incidental amounts of diesel,

Typical Accident Example

Stop the source and protect storm drains.

Absorb the spill with sorbent pads, kitty litter, or Amerizorb.

If possible, promptly bag and label material initially recovered from the spill's hotspot (where free liquid puddles or flows if present).

Re-apply sorbents to the hotspot as necessary.

Notify Operations for sand, sweeping, or vactoring.

If the situation is stable, then clean-up can occur later during normal working hours.

- *Safety Note*: Consider placing sand and cautionary road signs for motorcycles if, after clean-up, the street remains slippery.
- To learn more, get Ecology's *Focus on Small Spill Clean-up Guide, 03-08-005*.

etc.) should be placed in the "Waste Grease" drum at the City Shop – or in a dump truck (parked under-cover) for disposal in the lined landfill in Hillsboro, Oregon. (Contact the stormwater manager for arrangements with this non-RCRA waste.)

Other Incidents

- Need to isolate a spill within Consolidated Diking District #1 ditch? Call CDID#1 at 360-423-2493 to request the district to stop the pumps.
- For a big spill on I-5 or a State Route, involve WSDOT's SW Region Traffic Management Center at 360-759-1300.

- *Hazardous/Dangerous Waste*: Notify the NPDES Coordinator or a supervisor for hazardous materials (e.g. gasoline), or if there is doubt about the nature of the material or its proper disposal (see below). Concerns include adequate training per WAC 173-303 (dangerous waste regulations), analysis, profiling, packaging, labeling, storage, manifests, transportation, and disposal. Segregation can improve safety and disposal cost.
- *Unknown Material*: Treat unknown material as hazardous and dangerous until proven otherwise through testing, generator knowledge, or Ecology decision. To do otherwise can harm the environment or the health of others, and it is illegal.

7. Document

- Incident Command System forms may be required documentation. Note: if the material was left in place, if any reached the environment, if notifications were made, and whether Ecology or a spill contractor was able to respond.
- The NPDES Coordinator must document and investigate all spills and illicit discharges (IDDE-SOP8), and will record the incident in the IDDE Log (IDDE-SOP9).

Ecology Spill Response Teams are helpful and will consult 24 hours a day. They may respond even to small spills.

Responsible Party

The spiller is the responsible party. According to Washington state law, a spiller must report any spill of hazardous material or of oil. They must report the spill immediately (see below) and manage it from response to clean-up. Try to help the responsible party get this done.

- Commercial operators often have training and spill response contracts in place.
- Most citizens are unaware that their vehicle insurance covers environmental costs.

If the responsible party is unresponsive, unable, or unwilling to report and respond:

- 911 Dispatch should call a spill response contractor (e.g.: CCS 360-423-6316).
- City crew on scene or the NPDES Coordinator should do notifications (see below and IDDE-SOP5).
- Do not call a private spill response contractor, unless you (the City) intend to pay for it.

Note: the responsible party may face enforcement actions for failure to report and respond.

Notifications

- Consult IDDE-SOP5 to determine required notifications.

IDDE-SOP5 – Response, Reporting/Notifications

1. Impetus to Report: The Municipal Stormwater NPDES Permit requires City field staff to be trained to identify and report illicit discharges during the regular course of work. State and Federal laws also govern the (often immediate) reporting of spills.
2. How to Report:
   A. *Business Hours*: Kelso Stormwater Hotline (360-423-6590)
   B. *After Hours*: Kelso Stormwater Hotline (360-423-5730)
   C. *Anytime*: Longview-Kelso Stormwater Hotline (360-578-0900)
   D. *Spills with a potential to threaten safety or reach the environment*: Call 911 for hazmat assessment/response and for proper notifications. Report even if there is uncertainty; the Fire Department will help characterize the spill.
      - Additionally, contact Catherine Morey 360-423-6590 immediately if the City may be the Responsible Party.
   E. Report to Ecology and other agencies as indicated below.
3. Permit Reporting Matrix: [from ECY Publication #07-10-089 (Rev. 09/10)]

Type of Discharge	Permit Section	Who to Notify	Time to Notify	Other Reporting
A spill or discharge into or from the storm sewer system, which could constitute a threat to human health, welfare, or the environment.	G3	**Ecology SW Region**: 360-407-6300	Immediately, but no later than 24- hours after obtaining the knowledge.	Call CDID#1 & affected jurisdictions
A spill or discharge of oil or hazardous substances into or from the storm sewer system, which presents a threat to human health, welfare, or the environment.	G3	**Nat'l Response Center**: 800-424-8802 AND **WA Emergency Management Division** 800-258-5990 or 800-OILS-911 AND **Ecology SW Region:** 360-407-6300	Immediately	None
A discharge from the storm sewer system that is causing or contributing to a known or likely violation of water quality standards.	S4.F	In addition to any immediate notification under G3, as above, the appropriate authorized person shall notify Ecology in writing. (See S4.F.1)	≤30 days of determining that the discharge contributes to a known or likely violation of WQ standards.	Ecology will respond in writing per S4.F.2.
Illicit discharges not otherwise categorized above.	Various	Document in WQWebIDDE.	Include in your annual report submittal.	None

These thresholds for G3 reporting are subjective. The following considerations shall be used when gauging "a threat to human health, welfare, or the environment:"

A. Instances which could pose a safety threat to infrastructure or personnel using it, such as volatiles of a nature and/or amount as to render conditions in or adjacent to any section of the storm sewer system potentially flammable, corrosive, toxic, etc.
B. Instances which restrict the beneficial use of receiving waters, such as swimming.
C. Note: "Oil" includes a wide variety of materials, including plant-based oils. Report oil spills that cause a sheen in receiving waters (www.epa.gov/oem/content/reporting).
D. Note: Hazmat spills are more complicated (see Ecology guidance #92-119 "Reporting hazardous material spills"). Ecology's reporting requirements differ from the EPA's CERCLA regulations, which rely on reportable quantities.

E. Note: A spill that causes a threat to the environment or human health includes those that cannot be easily and rapidly contained (e.g. to saturated soils and/or in amounts that could get out of hand).
F. Lesson: Report the spill. Sort-out the details later, and don't forget the follow-up and documentation.

IDDE-SOP6 – Response, Investigations (Tracing)

Requirement to Act:

- Illicit discharges of any kind shall be investigated as soon as possible.
- Immediately respond to (or refer) problems and violations determined to be emergencies or otherwise judged to be urgent or severe.
- Begin an investigation of potential illicit discharge (or refer to the appropriate agency, such as Longview or the Cowlitz County Department of Health) within 7 days of a report or information.
- Begin an investigation of a suspected illicit connection within 21 days of a report or discovery.

General Considerations:

- Refer to IDDE-SOP8 for Safety and Access.
- Understand Chapter 13 of the CWP IDDE Manual.
- Enter the potential illicit discharge into WQWebIDDE. Use the log to document any findings or necessary follow-up work.

Strategies:

A. Storm Drainage System Investigation.
   1. This approach is best to identify constant or frequent illicit discharges.
   2. Systematically isolate the area from which the polluted discharge originates by inspecting manholes progressively upstream from the telltale outfall until it (or evidence thereof) is no longer observed – then work downstream from the “clean” manhole or junction to isolate the location where the polluted discharge is entering the MS4.
   3. Use a system map, a manhole hook, a flashlight, and maybe a water quality meter(s) to look for flow during dry weather, foul odors, colors or stained deposits, oily sheen and floatable materials.
   4. When visual inspections are not enough to isolate the source, consider dye testing, TV inspection, and/or smoke testing. Each of these methods are discussed in Section 13.3 of the CWP IDDE Manual and are typically performed in-house by the stormwater or sanitary sewer utilities.

B. Drainage Area Investigation.
   1. This approach is particularly useful when the type of activity responsible for the problem can be ascertained (see the table below) or for infrequent discharges (such as intentional dumping).
   2. This approach is similar to the outfall screening process described in IDDE-SOP1, but it considers only the sub-basin and pollution sources that are germane to the problem.
   3. Identify potential sources by:
      - Reviewing land use information or information that was collected from the latest annual outfall survey.
      - Survey the general area and surrounding properties to identify potential sources of the illicit discharge (for example by using the phonebook, driving around, etc.)
   4. Once potential discharge sites are identified, conduct individual site inspections to find source(s), characterize them, and ascertain responsibility.

Common Discharges and Potential Sources

Observed Discharge	Potential Causes
Clogging Sediment	• Construction activity without proper erosion & sediment controls • Roadway sanding operations • Outdoor work areas or material storage areas
Thick Algae Growth	• Fertilizer leak or spill • Landscaping operations • Hydroseeding following construction • Failing or leaking septic system
Oil	• Refueling operations • Vehicle or machinery maintenance activities
Sudsy discharge	• Power washing of buildings • Vehicle or equipment washing operations • Mobile cleaning crew dumping • Laundromats or cleaners • Household greywater discharge
Clogged Grease	• Restaurant sink drain connection to stormwater system
Sewage	• Failing or leaking septic systems

IDDE-SOP7 – Enforcement

The illicit discharge enforcement and code compliance provisions of the KMC 13.09 provide ample process and authority to ensure compliance with local laws.

Enforcement is through escalating procedures and actions ranging from education and civil penalties to misdemeanor criminal penalties and/or imprisonment.

Once the responsible parties are properly identified, they are to be approached in a positive manner, providing education relating to the illicit discharge and applicable ordinance concerns. Allow the responsible party to address the illicit discharge in a timely and satisfactory manner; as appropriate, offer limited technical and compliance assistance such as the safe containment, clean-up, repair, and disposal and/or recycling of the illicit discharge.

Continue involvement with the responsible party to ensure they addressed the illicit discharge and adequately addressed any potential public safety & health issues.

If voluntary compliance is not progressing in an acceptable manner or within a time frame that would satisfy the Permit, issue a Notice and Order of Compliance for civil penalties. Various requirements to be included in this notice are listed in the KMC 13.09. The violator has the opportunity to appeal to the City hearings examiner. After non-compliance with the notice, proceed to criminal prosecution with the help of the City's legal department.

IDDE-SOP8 – Safety and Access

When performing field work for identifying illicit discharges and addressing suspected ID/IC, safety is the primary consideration.

Personal protective equipment (PPE) should be carried at all times during field work. Hazards could include contact with hazardous substances, hazards from traffic, and hazards from confined space entry. Workers must also follow procedures and use caution when accessing private property.

Safety

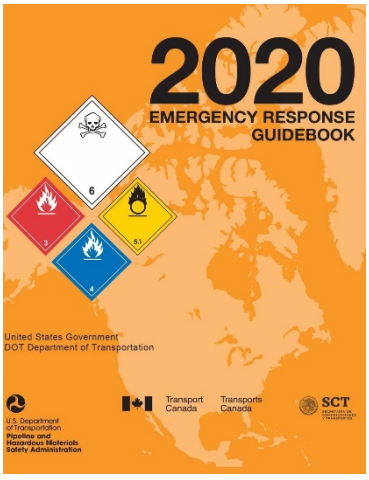
Personal Protective Equipment
Basic PPE that should be used or available at all times during field work include:

- Sturdy closed-toed shoes or boots
- Durable pants and shirt
- Safety vest
- Sunscreen
- Nitrile gloves

If field work will be conducted on the shoreline of the Cowlitz or Coweeman Rivers, or a diking improvement district ditch or pond, wear waders or rubber boots and a US Coast-Guard approved life jacket.

Hazardous Materials (Hazmat)
Hazmat dangers may not be obvious and may be severe or lethal. Occupational Safety and Health Administration's (OSHAs) definition of a hazardous substance includes two long lists from CERCLA and the DOT plus biological agents.

Situations can be subtle, such as a material that is radioactive, reactive or toxic, an oxygen deficient atmosphere, or an odorless vapor in concentrations exceeding its IDLH (level that is Immediately Dangerous to Life and Health) or its LEL (Lower Explosive Limit). *Know the material, its hazards, and the human pathways it can exploit – or do not approach the material without professional assistance*. Your safety is more important than the project, the Right-of-Way, the environment, or any property.



OSHA requires training for those who respond to "an anticipated release of a hazardous substance that is, or could become [uncontrolled]" or even "limited action" in a "danger area," such as to risks of fire, explosion, inhalation, or harmful chemical exposure (see WAC 296-824). Training requirements can be extensive, and often begin with a 40-hour HAZWOPER course and its 8-hour annual refresher (see CFR 1910.120 or WAC 296-843).

<u>Your best response may be to evacuate yourself and others, then call 911 and try to control access to the area until trained professionals arrive</u>.

The Emergency Response Guidebook (ERG, shown right) was developed by the US DOT and its Canadian and Mexican counterparts for transportation incidents involving a hazardous material. It is designed to help first responders quickly identify the material/hazards and to establish protective zones away from the incident.

- Basic tips:
  - Call for assistance (911).
  - Use the ERG to set a safe perimeter.
  - Go upwind of an inhalation hazard.
  - Do not touch or approach the material without the correct Personal Protection Equipment (PPE).
  - Do not touch mouth, nose, or eyes, or ingest anything on-scene until decontamination or unless cleared by the safety officer.
  - Eliminate ignition sources near flammable or explosive risks.
- Stay in communication, preferably with other staff, via a cell.

Traffic Safety

For work in the right-of-way, conduct work in a manner to protect the safety of drivers, bicyclists, pedestrians, and yourself. Use temporary traffic control devices, such as cones, wear safety vests, and use look-outs, as necessary.

Consider obtaining Maintenance Traffic Control Operations (MTCO) Training from a WSDOT-approved region trainer.

Confined Space Entry

Confined spaces are small spaces that are large enough to accommodate a worker, but are not primarily designed for human occupancy and offer limited means for entry and exit. An example of a confined space is a manhole.

Confined spaces can contain hazardous vapors posing risks of suffocation, and equipment such as manhole ladders that may pose slip and fall hazards. Worker safety in confined spaces is regulated in WAC 296-809.

- Only staff with confined-space training should enter a manhole, outfall, or other confined space.

Access

Do not enter or work on private property without permission. Aside from that general rule, inspection and sampling constraints and allowances are delineated for properties subject to an industrial or a construction NPDES stormwater discharge permit and for all properties in KMC Chapter 13.09.

- Even if the City has tacit permission to enter (such as with a permit or application), the City must first notify the owner of intent to enter for inspection and present credentials.
- City may enter without permission or after unsuccessfully locating the owner only to abate an imminent hazard – and even then, a search warrant must still be obtained afterwards.
- The City may require the owner to conduct or pay for monitoring to ensure compliance.

Citizen Relations

Informing the responsible party of the condition and requirements, then politely suggesting voluntarily compliance is the most cost effective way of dealing with most access and stormwater issues. As a representative of the City, one should actively listen to the citizen and acknowledge any concerns. Other considerations may include being prepared, projecting a high degree of professionalism, giving a proper introduction, clearly communicating (or better, reaching mutually understood agreement on) the problem, expectations, and timelines, assuring confidentiality as applicable, completing any follow-up, and finally, documenting the case. Typically, it is also a good idea to apprise a co-worker of anticipated citizen contacts, should an emergency arise.

Resources for Safety and Access

- Evergreen Safety Council provides MTCO Training and other Flagger Certification training for temporary traffic control.
- Washington State Department of Labor & Industries provides online training for confined space entry safety.

IDDE-SOP9 – Recordkeeping

Spills

In accordance with KMC 13.109.110, Notification of Spills – if the City is responsible for a spill, retain a written record of the discharge and the actions taken to prevent its recurrence for at least five years.

In addition, enter information about the spill into WQWebIDDE.

Outfall Inspections

While in the field, record individual outfall inspection results on the Outfall Reconnaissance Inventory (ORI) field sheet.

Return field sheets to Community Development office staff.

If the inspection results in a follow-up investigation, enter information about the ID/IC incident into WQWebIDDE.

Illicit Discharge / Illicit Connections Investigations

Record suspected ID/IC incidents in WQWebIDDE. Incidents may be identified through:

- City inspections of any kind
- ORI inspection
- Notifications from citizens via a call or Hotline
- Observations of City field staff such as Police and Fire

Appendix B
List of Abbreviations

BMP	Best Management Practice
CDID#1	Consolidated Diking Improvement District #1
CDID#3	Consolidated Diking Improvement District #3
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CWP	Center for Watershed Protection
DID#1	Diking Improvement District #1
DOT	Department of Transportation
ECY	Ecology
EPA	Environmental Protection Agency
ERG	Emergency Response Guide
GIS	Geographic Information System
GPS	Global Positioning System
Hazmat	Hazardous Materials
ID/IC	Illicit Discharge / Illicit Connection
IDDE	Illicit Discharge Detection and Elimination
IDLH	Immediately Dangerous to Life and Health
KMC	Kelso Municipal Code
LEL	Lower Explosive Limit
MS4	Municipal Separate Storm Sewer System
Nat'l	National
NPDES	National Pollution Discharge Elimination System
NRC	National Response Center
ORI	Outfall Reconnaissance Inventory
OSHA	Occupational Safety and Health Administration
Permit	Western Washington Phase II Municipal Stormwater Permit
PPE	Personal Protection Equipment
RCRA	Resource Conservation and Recovery Act
SOP	Standard Operating Procedure
SW	Southwest
SWMP	Stormwater Management Program
US	United States
WA	Washington
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation