



Illicit Discharge Detection and Elimination Standard Operating Procedure

Prepared for
Oak Lodge Water Services District, Oregon
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Section 1

Introduction and Background

Oak Lodge Water Services District's (OLWSD or District's) National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer (MS4) permit (effective date: March 16, 2012) includes specific requirements and provisions related to implementation of their Illicit Discharge Detection, Enforcement, and Response (IDDE) program. Illicit discharges are, per Schedule D.10.f of the NPDES MS4 permit: *“any discharge to a municipal separate storm sewer system that is not composed entirely of stormwater except discharges authorized under Section A.4.a.xii (of the permit), discharges permitted by an NPDES permit or other state or federal permit, or otherwise authorized by the Department.”*

The District has been implementing their IDDE program since receipt of its initial Phase I MS4 NPDES permit in 1995. Program activities have historically included code and ordinance development and implementation (to prohibit and enforce against illicit discharges) and dry weather field screening activities to identify occurrences and sources of potential illicit discharges.

This Standard Operating Procedures (SOP) document is intended to summarize implementation of the IDDE program, focusing on the dry weather field screening monitoring activities required to be conducted as part of the program. This SOP includes the rationale and strategy for selection of high priority dry weather screening locations, dry weather field screening inspection activities, pollutant parameter action levels, and code and enforcement authority. Additionally, this SOP includes a copy of 1) the District's Spill and Illicit Discharge Response Form, used to initial document reports of illicit discharges and spills (Appendix A); 2) the District's Illicit Discharge Field Screening Inspection form (Appendix B), to aid in the documentation and collection of information and follow up investigation activities; and 3) the District's Enforcement Response Plan to document enforcement response activities and timeframes (Appendix C).

1.1 Permit Language and Requirements

As described in Schedule A.4.a of the District's MS4 NPDES permit, the IDDE program must:

- i) *Prohibit, through ordinance or other regulatory mechanism, illicit discharges into the co-permittee's MS4;*
- ii) *Include documentation in an enforcement response plan or similar document by November 1, 2012 describing enforcement response procedures the co-permittee will implement when an illicit discharge investigation identifies a responsible party.*
- iii) *Develop or identify pollutant parameter action levels used as part of the field screening.*
- iv) *Conduct annual dry weather inspection activities during the term of the permit...*
- v) *Identify response procedures to investigate portions of the MS4 that, based on the general observations, field screening, laboratory analysis or other relevant information...indicates the presence of an illicit discharge.*
- xi) *Maintain maps identifying known co-permittee-owned MS4 outfalls discharging to waters of the State. The dry-weather screening priority locations must be specifically identified on maps by November 1, 2012.*

The District has been conducting such activities in accordance with procedures outlined in their 2012 Surface Water Program Monitoring Plan, but recently the District merged monitoring activities into the Coordinated Clackamas County Stormwater Monitoring Plan (CCCSMP). As such, documentation of dry weather field screening procedures is required in a separate document. This SOP provides the documentation for the above listed permit provisions.

1.2 Dry Weather Field Screening Monitoring Objectives

Dry weather field screening activities (and dry weather outfall monitoring) comprise a major element of the District's IDDE program. Dry weather field screening involves the inspection of select outfalls during dry weather conditions to determine if discharge is occurring. If discharge is occurring, the next steps are to identify the source of the discharge, determine whether the discharge is allowable, and eliminate the discharge if it is unallowable or anticipated to add pollutants to the MS4. Source identification and discharge characterization generally involves:

1. Visual observations and characterization.
2. Field analysis (on-site analysis for select field parameters).
3. Field tracking, or upstream system investigation to try and identify the pollutant source.
4. Laboratory analysis (sample collection for off-site analysis).

Implementation of dry weather field screening also addresses objectives of the District's monitoring program. Specifically, in addition to the dry weather field screening requirements listed in Schedule A.4.iv, the following monitoring objectives per Schedule B.1.a of the permit may be addressed:

- i) *Evaluate the source(s) of the 2004/2006 303(d) listed pollutants applicable to the co-permittee's permit area;*
- ii) *Evaluate the effectiveness of Best Management Practices (BMPs) in order to help determine BMP implementation priorities;*

Implementation of an effective dry weather field screening program may allow the District to identify periodic or ongoing sources of observable pollutant discharge. Additionally, it may inform how well the District's overall stormwater program implementation is being conducted, specifically elements such as public education and program enforcement.

1.3 Code and Enforcement Authority

The District's 2016 Code contains multiple references related to the prohibition and enforcement against illicit discharges to the District's storm sewer system. References are in code sections related to legal authority/ force of law (Subsection 101.03), discharge regulations (Subsection 303.02), and procedures for enforcement (Subsections 110.04 to 110.11).

Detail related to code and enforcement authority is described in the District's Enforcement Response Plan (Appendix C).

Section 2

Priority Dry Weather Field Screening Locations

For the District, field screening locations were previously established in 2012. The District historically monitored four locations at catchbasins or manholes within the District's conveyance system (not directly associated with outfall locations).

Because the runoff discharging to the historic monitoring locations was a combination of District and ODOT drainage, the District opted to revisit their monitoring locations to identify outfalls/monitoring locations where upstream discharge is from District property only (and thus subject to the District's enforcement response procedures).

This Section outlines the process for the refinement of the dry weather field screening location.

2.1 Monitoring Process/Study Design

Two major tributaries to the Willamette River: River Forest Creek and Boardman Creek flow east-west through the District. Linden Creek, a tributary to Kellogg Creek, flows in the north portion of the District. Watersheds for these tributaries are predominately contained within the District boundary.

The District reviewed their mapped major outfalls (greater than or equal to 36 inches in diameter) and priority minor outfalls (greater than or equal to 12 inches in diameter that drain industrial zoned areas) to identify high priority locations. The District considered the upstream infrastructure to outfalls to select locations that are accessible and where the upstream drainage area is isolated to District-regulated areas (i.e., excludes ODOT drainage). In evaluating locations, the District considered the following criteria:

1. Locations with limited/ no baseflow expected during summer months.
2. Distribution of locations amongst land use categories and watersheds.
3. Locations with historic complaints over the past 5 years.
4. Locations with upstream industry (or other high pollutant sources).
5. Locations with upstream development potential (such that there is the additional potential for new cross connections or pollutant sources).
6. Locations with upstream wastewater permits/pretreatment activities.
7. Site accessibility.

Final field screening locations are provided in Table 2-1 below.

2.2 High Priority Screening Locations

The District identified five high priority screening locations. Screening locations reflect a distribution of sites amongst the major watersheds in the District. One of the locations is consistent with historic field screening efforts. The other four locations are new locations, selected based on little to no anticipated summer baseflow conditions and their proximity to potential pollutant generating land use or known businesses with routine complaints. Based on ongoing field screening efforts, priority locations are subject to change and modifications shall be documented in this SOP. Current high priority screening locations are shown on Figure 2-1.

Table 2-1. District Priority Field Screening Locations														
Associated Outfall No.	High Priority Screening Site NO. ¹	High Priority Screening Site Asset ID ¹	Address	Diameter (in.)	Receiving water	Significant baseflow contribution (Y/N)	Assessment Criteria						Notes	
							Historic Monitoring Location?	Observed Flow ²	Historical Complaints ²	Upstream Industrial (high pollutant) sources	Upstream (Re)development/Potential	Upstream WW permits/pretreatment		Accessible?
W1G-0029 (n/a)	1	W1F-0515 MH	13750 SE Renton Ave.	12	Willamette River	N	N	N	N	N	Y	Y	Y	Land use: residential/ Multi-family residential
S1J-0036 (n/a)	2	S1J-0326 MH	17325 SE McLoughlin Blvd	12	N Boardman Creek	Y	N	Y	Y	Y	Y	N	Y	Land use: commercial
R10-7056 (n/a)	3	R1R-0248 Basin	2350 SE Swain Ave.	12	River Forest Creek	N	N	N	N	N	N	N	Y	Land use: residential
K10-6538 (No. 2)	4	K1N-0857 Basin	2804 SE Courtney Ave. N side	12	Linden Creek	N	Y	N	Y	Y	N	N	Y	Land use: commercial/ residential
S40-1080 (No. 10)	5	S4D-0262 Basin	4606 SE Boardman Ave.	12	S Boardman Creek	N	N	N	N	N	N	N	Y	Land use: commercial

¹ High Priority screening sites mapped in IDDE SOP.

² Observed flow and historical complaints refers to observed activities over the past 5 years.



High Priority Screening Site Number	Asset ID	Address	Receiving Water
1	W1F-0515 MH	13750 SE Renton Ave.	Willamette River
2	S1J-0326 MH	17325 SE McLoughlin Blvd	N Boardman Creek
3	R1R-0248 Basin	2350 SE Swain Ave.	River Forest Creek
4	K1N-0857 Basin	2804 SE Courtney Ave. N side	Linden Creek
5	S4D-0262 Basin	4606 SE Boardman Ave.	S Boardman Creek

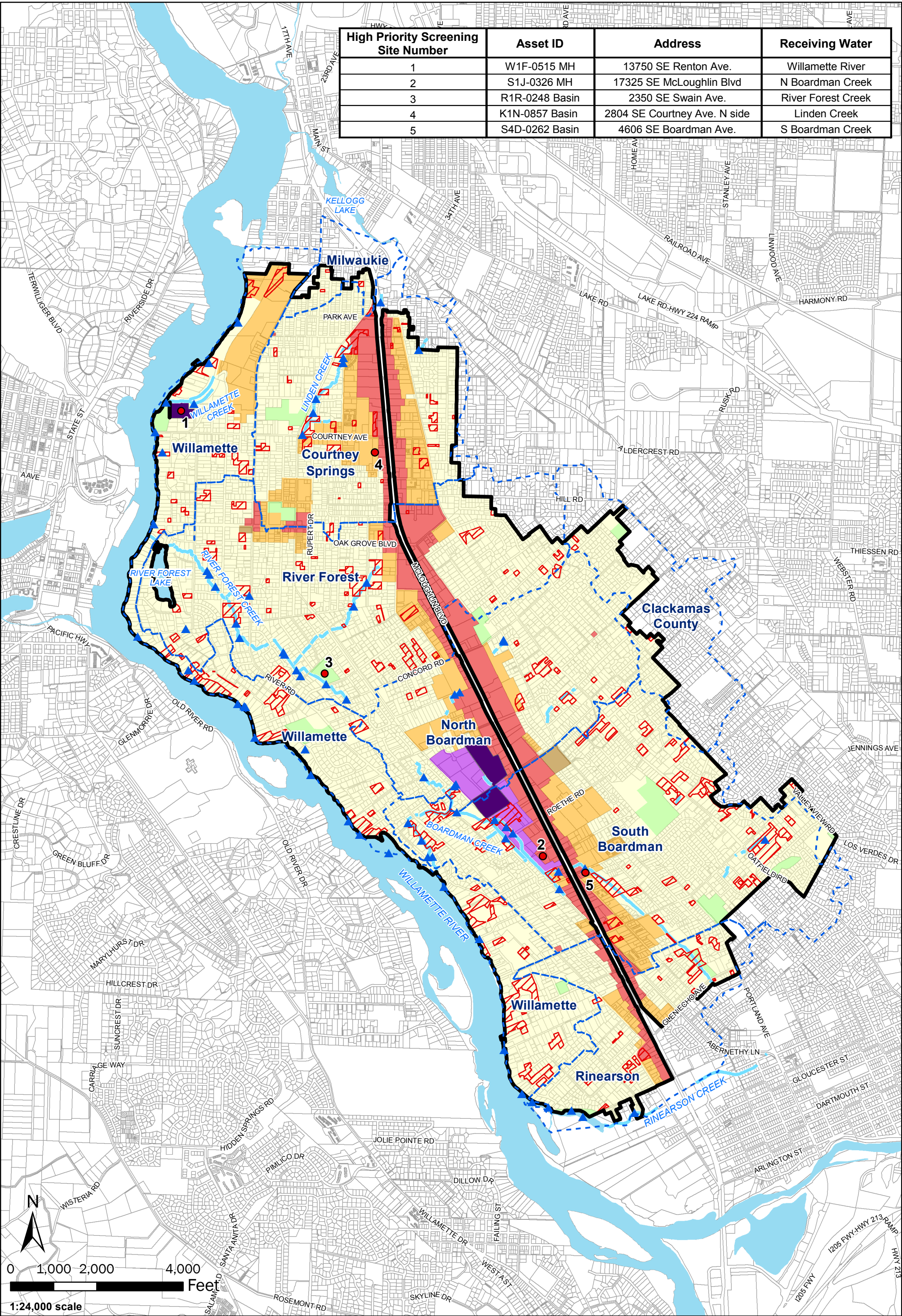


Figure 2-1:
Dry Weather Field Screening Locations

- ▲ MS4 Outfalls
- High Priority Field Screening Locations
- NPDES 1200-Z Facilities
- District/MS4 Service Area Boundary
- Streams
- Watershed Boundaries
- Commercial
- Industrial
- Single Family Residential
- Multi-Family Residential
- Parks and Open Space
- Vacant

Section 3

Standard Operating Procedure

3.1 Dry Weather Field Screening Inspection Criteria

3.1.1 Weather

Dry weather screening will be conducted during dry summer months and following a 72-hour minimum antecedent dry period. Typical months for sampling are July, August or September.

3.1.2 Frequency/ Duration

Dry weather screening will be conducted once annually at high priority field screening locations as shown in Section 2.

Given the screening will be conducted at a frequency of once annually, preliminary identification of illicit discharges would most likely be reflective of flows of a continuous nature associated with cross connections. Intermittent spills or discharges from dumping activities that occur more randomly would be more difficult to catch with a field screening program.

3.1.3 Reported Complaints

The identification of intermittent spills or dumping would be more likely a result of complaints received from the public or problems noted through routine maintenance activities. Such reports are initially recorded on the Spill and Illicit Discharge Response Form (Appendix A).

The District maintains a system for documenting reported complaints or noted problems and will investigate these potential illicit discharge activities using the same procedures provided in this document for problems identified through dry weather field screening (see Appendix B).

3.2 Responsible Parties

The dry weather field screening activities will be conducted by the District's Pollution Prevention Specialist. The District's Pollution Prevention Specialist will be responsible for assessing proper weather conditions for field screening, and if applicable, ensuring the proper collection of samples for delivery to a lab for lab analysis. Any laboratory analysis of field samples will be conducted by a certified laboratory.

Should investigation or tracking be required, the District General Manager will be notified of any enforcement activities or follow up measures.

3.3 Safety Measures and Concerns

Staff conducting dry weather screening and other field work should be properly trained and aware of potential safety hazards. Regular training for field personnel is essential for safe field practices. It is important for personnel to understand all potential hazards before entering any location. Screening of outfalls should always be conducted in groups of two at a minimum. Visual inspection of the outfall should be conducted before attempting any sample collection. If sample collection appears hazardous, a sample should not be collected and problems should be reported to the fire department. Proper lab gloves should be worn during the collection of samples. Basic safety equipment should also include appropriate protective clothing, field boots, visibility vests, cell phones, and first aid kits.

In some cases, follow-up tracking of flows may be conducted to identify the source of a flow. For tracking activities, safety equipment may also need to include flashlights, traffic cones, manhole cover lifters, air quality monitors, hardhats, safety glasses, or steel-toed boots. Field crews will need confined space entry training if entering manholes is conducted. Confined space training will ensure that crews conduct appropriate air quality monitoring to ensure awareness of flammable gases if present. At least one crew member must stay outside of the manhole always for emergency rescue situations.

3.4 Pollutant Parameter Action Levels

Pollutant parameter action levels were developed and are required initially to screen observed discharges to determine whether further investigation and lab analysis is needed. The pollutant parameter action levels include both visual analyses and field analyses as described in Table 3-1.

These pollutant parameter action levels are also listed on the field data sheet provided in Appendix B.

Table 3-1. Pollutant Parameter Action Levels			
Pollutant parameter	Potential indicator of illicit discharge	Severity of observation	Action levels
Visual analyses			
Odor	An odor may be noticeable at the site which may be generally rancid or sour, or it may be more clearly identifiable as sewage or a petroleum related source.	#1-faint #2-easily detected #3-noticeable from a distance	<ul style="list-style-type: none"> Two or more of these observations have a severity of #1 or greater, or, One or more of these observations have a severity of #3.
Color	A color may be present in the discharge. Different colors can indicate different sources. An example would be the lime green color associated with anti-freeze. Examples of other colors associated with specific sources of pollutants are provided in the photos attached to the field data sheet in Appendix A.	#1-faint colors in sample bottle #2-clearly visible in sample bottle #3-clearly visible in outfall flow	
Turbidity	Turbidity can indicate particulates such as sediment in the water and may range from looking slightly cloudy to completely opaque.	#1-slight cloudiness #2-cloudy #3-opaque	
Floatables (other than trash)	Some floatables such as toilet paper are indicators of illicit sanitary sewer connections. Other floatables could include petroleum sheens or soap suds.	#1-few/slight; origin not obvious #2-some; indications of origin (e.g., possible suds or oil sheen) #3-some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)	
Field analyses			
pH	pH can be a good indicator of liquid wastes from industries, which can have very high or low pH.	NA	Outside of range from 6.5 to 8.5
Conductivity	Conductivity can be strongly related with the total amount of dissolved material in water. Conductivity can have some value in detecting industrial discharges that have very high conductivity readings.	NA	Exceeds 500 $\mu\text{m}/\text{cm}$

3.4.1 Visual Analysis

During dry weather field screening, if flow is detected, flow will be evaluated per the visual pollutant parameters defined above. The field crew will report results of the visual inspection of the field data sheet (Appendix B). The visual inspection effort will include reporting on the severity of each visual parameter. The field data sheet includes three levels of severity for each visual parameter; #1 being the lowest severity, and #3 being the highest severity. These visual observations are recorded on the field data sheet.

Depending on severity, the visual parameters may trigger further investigation (see Section 3.6) and collection of a sample for laboratory analysis (see Section 3.5.2). Specifically, if any there is one observation or more with a severity level of #3 or if there are two or more observations with a severity of #1 or greater.

3.4.2 Field Analysis

Field analyses for pH and conductivity will also be conducted if flow is observed. Regardless of the results of the visual analyses, further investigation (tracking of the source of flow) and collection of a sample for laboratory analysis will be conducted if either the pH or conductivity results trigger the parameter's action level. For pH, this would include flow with a pH outside of the range from 6.5 to 8.5. This pH range is based on Oregon in-stream water quality standards. For conductivity, this would include flows with a conductivity level that exceeds 500 $\mu\text{S}/\text{cm}$. This conductivity concentration is based on the City of Portland's IDDE program and its review of data which showed that local natural waters should have a conductivity concentration below this amount.

3.5 Dry Weather Field Screening Activities

3.5.1 Inspection

Each high priority outfall location will be investigated as part of the dry weather field screening efforts, and field data sheets will be completed for each outfall.

Inspections include both visual analysis and field analysis for pH and conductivity as described in Section 3.4, if flow is occurring at the outfall. Photographic examples are provided with the field data sheet to assist in the interpretation of visual observations and define severity. Following inspection, a determination will be made as to whether pollutant parameter action levels were exceeded and whether further investigation and sampling is required.

3.5.2 Sampling

During dry weather field screening activities, there may be a need to conduct further investigation (source tracking) and take samples for laboratory analysis. Therefore, prior to dry weather field screening activities, all necessary sample bottles will be decontaminated and prepared for sampling. If flow is present and exceeds defined pollutant parameter action levels (Section 3.4), sample bottles will be properly labeled and a sample will be collected for laboratory analysis. Field personnel will wear gloves while collecting samples. Bottles will be stored in a cooler with ice and delivered to the certified lab for analysis.

Laboratory analysis may consist of bacteria, metals, nutrients, hydrocarbons, or other analyses deemed appropriate based on the observations and suspected sources from field screening. Analytical results may either be used to support further identification of the source of flow, or to provide any back up documentation that may be necessary for enforcement activities.

3.6 Source Identification Investigations

3.6.1 Tracking

If an illicit discharge is indicated based on an exceedance of the pollutant parameter action levels, then the source of discharge will be investigated following sample collection activities. Source identification tracking starts at the outfall location and moves upstream. GIS mapping of the stormwater system and information on contributing tax lots should be prepared in advance and used by field personnel to identify a potential source(s) upstream. Easy-to-access locations, such as manholes or catch basins, can be used to track flow. Typically, tracking at manholes/catchbasins should occur at an interval of approximately every quarter mile or until no more flow is observed. If no flow is observed, then tracking should work backwards toward the original location to narrow down the location of the source of the discharge.

If field investigations do not result in the identification of the source of the illicit discharge, alternative investigative techniques will be considered depending on significance of the flow and lab sample results, such as dye testing, or closed circuit television.

According to the NPDES MS4 permit, *“once the source of an illicit discharge is determined, the co-permittee must take appropriate action to eliminate the illicit discharge, including an initial evaluation of the feasibility to eliminate the discharge, within 5 working days. If the co-permittee determines that the elimination of the illicit discharge will take more than 15 working days due to technical, logistical, or other reasonable issues, the co-permittee must develop and implement an action plan to eliminate the illicit discharge in an expeditious manner”*.

3.6.2 Enforcement

The District will conduct enforcement activities related to illicit discharges in accordance with the procedure outlined in the Enforcement Response Plan (Appendix C). Generally, a verbal warning is given (if a responsible party is identified) in accordance with a Class III discharge and outreach is conducted. If a written notification is distributed, requiring an immediate stop to the discharge, an NON or NOV is issued.

Under District code, District staff may enter properties to inspect, observe, monitor, measure, and sample the municipal storm sewers.

Samples collected at the time of the observed illicit discharge will inform remediation/ cleanup efforts and be used to establish any additional fees, fines, posted notices or penalties.

3.7 Data Management and Adaptive Management

Records of field screening activities and maps of outfalls will be maintained by the District. If changes to the outfall inventory are noted, maps will be corrected within 6 months of identifying the change. Dry weather field screening results will be reported to DEQ annually with the NPDES MS4 Annual Report. Results of field screening activities will also be reviewed as part of the permit renewal process. If, after five years, results consistently show no activity related to illicit discharges, the District will reconsider and potentially make changes to priority screening locations.

Appendix A: Spill and Illicit Discharge Response Form



SPILL AND ILLICIT DISCHARGE RESPONSE FORM

DATE _____
TIME _____
SAMPLER _____

Location/Asset # _____

Flow: Circle Yes/No
If yes, estimate the amount of flow: _____
If flow rate is high, investigate source. Use comments below for findings.

Ph _____
Conductivity MS/CM _____
Temperature _____ Celsius
LDO _____

VISUAL OBSERVATIONS
Odor: None Musty Sewage Rotten Eggs Sour Milk
Color: Clear Red Yellow Brown Green Grey
Clarity: Clear Cloudy Opaque Suspended Solids
Floatables: None Oily Garbage/Sewage
Deposits/Stain: None Oily Sediments Other _____
Vegetation: None Normal Excessive Inhibited
Structural: Normal Concrete Cracking Metal Condition _____
Biological: _____

Comments: _____

Appendix B: Dry Weather Field Screening Inspection Form



Dry Weather Field Screening Inspection Form

SECTION 1: General Information

Inspector(s):	Outfall ID/location:
Date:	Watershed area:
Ambient temperature:	Time:
Photo Nos:	Rainfall in last 24 hours? (Y/N)
Upstream/Surrounding land use:	GPS points:

- Industrial
 Residential
 Commercial
 Parks/Open Space
 Institutional
 Other

SECTION 2: Outfall Description

Type	Material	Shape	Submerged	Dimensions (inches)
Closed pipe	<input type="checkbox"/> RCP <input type="checkbox"/> PVC <input type="checkbox"/> CMP <input type="checkbox"/> HDPE <input type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input type="checkbox"/> Single <input type="checkbox"/> Box <input type="checkbox"/> Double <input type="checkbox"/> Elliptical <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____	<input type="checkbox"/> No <input type="checkbox"/> Partially _____ % <input type="checkbox"/> Fully _____ %	Diameter or dimensions (in x in): _____
Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Rip-rap <input type="checkbox"/> Earthen <input type="checkbox"/> Other _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____		Depth: _____ Width: _____ Bottom width: _____

Flow present? Yes No (If no flow is present, go to Section 4)

SECTION 3: Flow Indicators

Magnitude: Substantial Moderate Trickle

Odor		Color		Turbidity	Floatables (Not trash)	
<i>Description:</i>	<i>Severity:</i>	<i>Description:</i>	<i>Severity:</i>	<i>Severity:</i>	<i>Description:</i>	<i>Severity:</i>
<input type="checkbox"/> none <input type="checkbox"/> sewage <input type="checkbox"/> sulfide <input type="checkbox"/> rancid/sour <input type="checkbox"/> petroleum/gas <input type="checkbox"/> other: _____	<input type="checkbox"/> 1- faint <input type="checkbox"/> 2- easily detected <input type="checkbox"/> 3- noticeable from a distance	<input type="checkbox"/> clear <input type="checkbox"/> brown <input type="checkbox"/> gray <input type="checkbox"/> yellow <input type="checkbox"/> green <input type="checkbox"/> red <input type="checkbox"/> other: _____	<input type="checkbox"/> 1- faint colors in sample bottle <input type="checkbox"/> 2- clearly visible in sample bottle <input type="checkbox"/> 3- clearly visible in outfall flow	<input type="checkbox"/> 1- slight cloudiness <input type="checkbox"/> 2- cloudy <input type="checkbox"/> 3- opaque	<input type="checkbox"/> sewage (toilet paper) <input type="checkbox"/> petroleum (oil sheen) <input type="checkbox"/> suds <input type="checkbox"/> other: _____	<input type="checkbox"/> 1- few/slight; origin not obvious <input type="checkbox"/> 2- some; indications of origin (e.g. possible suds or oil sheen) <input type="checkbox"/> 3- some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

SECTION 4: Field Testing Results

pH	Conductivity
Outside of range 6.5-8.5? <input type="checkbox"/> Yes <input type="checkbox"/> No	Exceeds concentration? >500 µs/cm <input type="checkbox"/> Yes <input type="checkbox"/> No

SECTION 5: Physical Indicators For Both Flowing and Non-Flowing Outfalls

Outfall damage	Deposits/stains	Abnormal vegetation	Poor pool quality	Pipe benthic growth
<input type="checkbox"/> No <input type="checkbox"/> Cracking or chipping <input type="checkbox"/> Peeling paint <input type="checkbox"/> Corrosion <input type="checkbox"/> Other: _____	<input type="checkbox"/> No <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other: _____	<input type="checkbox"/> No <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	<input type="checkbox"/> No <input type="checkbox"/> Colors <input type="checkbox"/> Suds <input type="checkbox"/> Odors <input type="checkbox"/> Oil sheen <input type="checkbox"/> Floatables <input type="checkbox"/> Excessive algae <input type="checkbox"/> Other: _____	<input type="checkbox"/> No <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other: _____
Comments:	Comments:	Comments:	Comments:	Comments:

SECTION 6: Probability of Illicit Discharge

Unlikely
 Potential (presence of two or more indicators and/or pH or conductivity readings outside of range)
 Suspect (one or more indicators with a severity of 3)
 Obvious

SECTION 7: Data Collection

Sample Taken in Field? Yes No
 If yes, sample collected from: Flow in pipe/channel Pool/waterbody below outfall
 Sample Taken for Lab? Yes No
 If yes, sample collected from: Flow in pipe/channel Pool/waterbody below outfall

SECTION 8: Non-Illicit Discharge Concerns

Describe any additional issues/comments (e.g., repair or maintenance required, etc.):

Visual Indicators of Illicit Discharges¹

Color and Turbidity



Slight Turbidity
 Turbidity: 1
 (Difficult to interpret this observation;
 May be natural or an illicit discharge)



Color: Brown; Severity: 2
 Turbidity Severity: 2



Highly Turbid Discharge
 Color: Brown; Severity: 3
 Turbidity Severity: 3



Sewage Discharge
 Color: 3
 Turbidity: 3



Paint
 Color: White; Severity: 3
 Turbidity: 3



Industrial Discharge
 Color: Green; Severity: 3
 Turbidity Severity: 3

¹ As adapted from the Center for Watershed Protection's Illicit Discharge Detection and Elimination Guidance Manual (October 2004).

Suds or Foam



Natural Foam
Note: Suds only associated with high flows at the “drop off”
Do not record.



Low Severity Suds
Rating: 1
Note: Suds do not appear to travel;
very thin foam layer



High severity suds
Rating: 3
Sewage

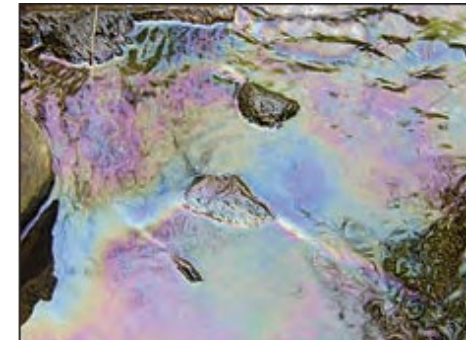
Oil Sheens



Low Severity Oil Sheen
Rating: 1



Moderate Severity Oil Sheen
Rating: 2



High Severity Oil Film
Rating: 3

Algal and Bacterial Mats



Bacterial growth at this outfall indicates nutrient enrichment and a likely sewage source.



This bright red bacterial growth often indicates high manganese and iron concentrations. Surprisingly, it is not typically associated with illicit discharges.



Sporolitis filamentous bacteria, also known as "sewage fungus" can be used to track down sanitary sewer leaks.



Algal mats on lakes indicate eutrophication. Several sources can cause this problem. Investigate potential illicit sources.



Illicit discharges or excessive nutrient application can lead to extreme algal growth on stream beds.



The drainage to this outfall most likely has a high nutrient concentration. The cause may be an illicit discharge, but may be excessive use of lawn chemicals.

Appendix C: Enforcement Response Plan



SPILL & ILLICIT DISCHARGE

ENFORCEMENT RESPONSE PLAN

Oak Lodge Water
Services
14611 SE River Road,
Oak Grove, OR 97267
503-654-7765

May 2018

Summary

Oak Lodge Water Services (OLWS) developed this Enforcement Response Plan (ERP) as part of the requirement under its MS4 NPDES Permit.

Implementation of an ERP allows OLWS to respond consistently and objectively to instances of violations. By following documented enforcement procedures, OLWS customers are alerted to the consequences of noncompliance in relation to illicit discharges.

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ENFORCEMENT RESPONSE GUIDE

1.0 INTRODUCTION

This Enforcement Response Guide is for use by the Oak Lodge Water Services District (OLWS or District) staff in achieving consistency in response to violations of the OLWS' Rules and Regulations (dated March 8, 2018) relating to discharges to the District's storm system. The policies and procedures in this document are designed to provide guidance for timely and appropriate response to violations of the Rules. This document also is designed to meet the provisions of the District's Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) Permit, Schedule A, Part (4)(a) which, in part, requires the District to develop and implement an enforcement response plan for when an illicit discharge investigation identifies a responsible party.

1.1 SUMMARY OF DISTRICT ENFORCEMENT AUTHORITIES

The goals of the District's enforcement policy are to: (1) obtain and maintain compliance with the applicable Federal, Oregon and local statutes, ordinances, rules, permits and orders; (2) protect the public health and the environment; and (3) deter future violators and violations, and; (4) ensure appropriate and consistent enforcement.

Chapter 1, Section 1.3 of the Rules and Regulations and Chapter 10, Section 10.1 of the Rules and Regulations establish legal authority applicable to direct and indirect discharges of waters into the public storm system in OLWS.

Chapter 10, Section 10.12 (Discharge Regulations) of the Rules and Regulations describes discharges prohibited into the District's storm system. These include:

- Pollutants or waters to the public stormwater system containing pollutants or concentrations or levels equal to or in excess of those necessary to protect Waters of the State;

- Failure to abide by the terms of any Erosion Control/Surface Water Management Permit, MS4 permit, NPDES permit, statute, administrative rule, ordinance, stipulated and final order of decree, or other permit or contract;
- Discharges of non-stormwater or spills or dumping of materials other than stormwater into the public storm system unless pursuant to a conditional Erosion Control/Surface Management Permit approved by the District and in compliance therewith;
- Illegal or unpermitted connection or methods of conveyance to the public stormwater system; or,
- Any discharge that will violate federal, state, or local water quality standards.

Allowable non-stormwater discharges are listed in Attachment 1 of this Guide.

District Rules and Regulations state that the District shall endeavor by conference, conciliation and persuasion to solicit compliance. Therefore, it is the intent of the District that in most cases, and depending upon the severity of the violation, the District's initial response to a violation will consist of some form of outreach and technical assistance. This policy focuses on violators who do not comply with initial actions by the District and will address violations in order of seriousness at the most appropriate level of enforcement to achieve these goals – with quickly escalating levels of enforcement until compliance is achieved.

Chapter 11, Section 11.5 (Procedure for Enforcement) of the Rules and Regulations authorizes the District to use a variety of enforcement actions in response to violations of the Rules. These actions include:

- Civil administrative actions, such as issuance of Notices of Non-Compliance, Notices of Violations, Notice of Civil Penalty Assessment, Administrative Orders, and Administrative Fines;
- Issuance of stop work orders;
- Civil litigation, criminal prosecution or other appropriate legal actions;
- Termination of service; and,
- Other actions as the District deems appropriate.

Each day of each violation of the Rule constitutes a separate violation. With regards to discharge limits, each parameter that exceeds a discharge limit may constitute a separate violation.

Penalties are determined in two stages: (1) determination of a gravity-based penalty, and (2) adjustments to the gravity-based penalty.

1.2 ENFORCEMENT RESPONSE

For an action to be effective, it must be timely. For an action to be timely, the violation must be detected and responded to promptly after its occurrence. The District will determine and initiate an initial response within five (5) business days after identifying the source of the violation or non-compliance. This may include an evaluation of the feasibility to eliminate the discharge.

1.2.1 Informal Resolution

The District shall endeavor by conference, conciliation and persuasion to solicit compliance first.

Staff shall strive to use education and technical assistance to remediate violations, especially with parties who are unlikely to have knowledge of regulatory requirements. Generally, violators will be given an initial period to correct the violation based on the educational materials and technical assistance provided by District staff. Informal resolution shall include the following efforts:

- Education through a discussion of the violated regulation and the facility's need to come into compliance.
- Technical assistance that include sharing of program materials, referrals to other agencies or contractors, and guidance on best management practices ("BMPs") that should be used. Technical assistance should seek to provide the violator with options, when options are available.
- Oral notice that explains the nature of the violation and a time frame for remedy. Resolution of the violation should always be verified by a submittal from the violator proving the violation is remedied, windshield surveys, site visits, or records checks.

All oral notices shall be given in person to the appropriate facility personnel. All instructions or requested remedies shall be oral, presented by phone or in person, to the appropriate facility manager and/or property owner to enhance conformance with the remediation instructions. Written documentation of these instructions shall be forwarded to the facility manager upon request. All oral notices of violation shall be recorded in the District's CMMS Work Order database.

1.2.2 Enforcement Actions

Depending upon the severity (classification) of the violation (see below), the District may choose to initiate an enforcement action. Under Chapter 11, Section 11.4 (Classes of Violation) of the Rules and Regulations, this initial enforcement response may be either a Notice of Non-Compliance (NON) or a Notice of Violation and Intent to Assess a Penalty (NOV).¹

For continuous or recurring violations or non-compliance, the District generally will take additional enforcement action. Additional enforcement actions may include a Notice of Civil Penalty Assessment (NCP), Administrative Order (AO), emergency suspension of services (Abatement), or civil or criminal litigation.

The District, without notice to the Discharger, may immediately respond to any violation that the District determines presents a threat or potential threat to human health, property, or the environment. The District's response may include additional sampling, inspection, or monitoring on the subject property in addition to halting the Discharger's discharge or termination of service.

¹ NONs shall be issued for all classes of documented violations (except those for which the District issues an NOV), and requires the Discharger to submit a written report to the District within five (5) business days from the NON date. See *OLWS Rules and Regulations, 11.5.2 PROCEDURE FOR ENFORCEMENT*.

1.3 VIOLATIONS AND NON-COMPLIANCE

In general, a violation is defined in the OLWS Rules and Regulations as, “a transgression of any statute, rule, order, license, permit or any part thereof and includes both acts and omissions”. The OLWS Rules and Regulations further classify violations into one of three categories – Class I, Class II, and Class III – with Class I violations being the most serious and highest priority, Class II violations being the next priority, and Class III reflecting an unintentional or minimal impact violation.

District staff will determine the classification of each identified violation based on the requirements of Chapter 11, Section 11.1 (Purpose) of the Rules and Regulations, and on the specific facts and circumstances concerning the violation and the Discharger. In determining the appropriate classification of certain violations, the District will consider the risk of harm presented by the violation. In determining the potential risk of harm associated with a violation, the District considers “the level of risk created by the likelihood of exposure, either individual or cumulative or the actual damage either individual or cumulative, caused by a violation to public health or the environment.”

1.3.1 Class 1 Violations

Per Chapter 11, Section 11.4 of the Rules and Regulations, Class I violations include “any violation which poses a gross risk of harm to public health or the environment, or violation of any compliance schedule.” Typical Class I violations include, but are not limited to:

- a) Violation of a District Order or approved plan;
- b) Intentional unauthorized discharges;
- c) Negligent spills which pose a major risk of harm to public health or the environment;
- d) Discharge of waste to surface waters without first obtaining a National Pollutant Discharge Elimination System Permit;

- e) Failure to immediately notify the District of a spill or upset condition which results in an unpermitted discharge to public waters which post a major risk of harm to public health of the environment;
- f) Violation of a permit compliance schedule;
- g) Failure to provide access to premises or records;
- h) Any other violation related to water quality which poses a major risk of harm to public health or the environment; and
- i) Two Class II violations, or one Class II and two Class III violations, or three Class III violations.

1.3.2 Class II Violations

Per Chapter 11, Section 11.4 of the Rules and Regulations, Class II violations include but are not limited to “any violation which poses a moderate risk of harm to public health or the environment.” Typical Class II violations include, but are not limited to:

- a) Violation of a District Order or approved plan;
- b) Waste discharge permit limitation violations which pose a moderate risk of harm to public health or the environment;
- c) Negligent spills which pose a moderate risk of harm to public health or the environment;
- d) Failure to submit a report or plan as required by permit or license;
- e) Any other violation related to water quality which poses a moderate risk of harm to public health or the environment.

1.3.3 Class III Violations

Per Chapter 11, Section 11.4 of the Rules and Regulations, Class III violations include but are not limited to “any violation which poses a minor risk of harm to public health or the environment.” Typical Class III violations include, but are not limited to:

- a) Violation of a District Order or approved plan;
- b) Negligent spills or discharges which pose a minor risk of harm to public health or the environment;

- c) Violation of a waste discharge permit limitation which poses a minor risk of harm to public health or the environment; and
- d) Any other violation related to water quality which poses a minor risk of harm to public health or the environment.

1.4 ENFORCEMENT RESPONSE ACTIONS²

The District staff will make an initial determination on what response the District will pursue in response to a violation.

If an enforcement action is initially deemed appropriate, then the District will initiate an enforcement response for each documented violation within five (5) business days of identifying a violation. The District shall address all documented violations in order of seriousness at the most appropriate level of enforcement necessary, taking into account the circumstances of each violation. For each Class I or II violation, the District will issue a Notice of Non-Compliance (NON) unless the District issues a Notice of Violation and Intent to Assess a Civil Penalty (NOV) or other such enforcement action permitted under the Rules or other District order.

After issuance of a NON or NOV, and a District determination that the violation persists or that satisfactory progress is not being made, then additional enforcement action is required. The District generally will initiate additional enforcement action within sixty (60) business days after detection of the violation. Additional enforcement action may include a Notice of Civil Penalty Assessment (NCP), Memorandum of Agreement and Order (MAO), Abatement, and civil or criminal litigation.

² Attachment No. 1 to this enforcement Response Guide provides examples of initial enforcement responses to a broad range of potential violations and examples of additional escalating enforcement responses to continuing non-compliance. The examples provided in Attachment No. 1 shall not be construed to bind or otherwise limit the District's enforcement responses to violations. Instead, actual enforcement responses will be taken in accordance with the provisions of the Rules and will be based on an evaluation of all circumstances, including the Discharger's compliance history.

In making the determination to take additional enforcement action and the nature of the action to be taken, the District will consider, among other factors: (a) the magnitude of the violation; (b) the duration of the violation; (c) the effect of the violation on the environment; (d) the compliance history of the Respondent; and (e) the good faith efforts and cooperation by the Respondent to return to compliance.

1.4.1 Notice of Non-Compliance (NON)

Under Chapter 11, Section 11.5.2 of the Rules and Regulations, a NON is an informal enforcement action which:

- Informs a person of the existence of a violation, the actions required to resolve the violation, the consequences of continued non-compliance, and may specify the time by which compliance is to be achieved.
- Informs the Discharger that formal enforcement action will be evaluated in accordance with the District's Rules; and
- Is typically issued in the form of a Compliance Telephone Memorandum (CTM) and typically requires the Discharger to submit to the District a report describing in detail the violation event, the steps taken to correct the violation and the steps to be taken to prevent future violations. A NON would specify that the report, if required, must be submitted to the District within five (5) business days from the date of the NON.

1.4.2 Notice of Violation and Intent to Assess a Civil Penalty (NOV)

Under Chapter 11, Section 11.5 of the Rules and Regulations, a NOV is a formal enforcement action which:

- Constitutes the District's notice to the Discharger of the violation and shall inform the Discharger that the District will assess a civil penalty if the violation continues;
- May specify the time by which compliance is to be achieved;
- Shall be issued for the first occurrence of a documented Class I violation or the repeated or continued occurrence of documented Class II or III violations; and
- The NOV shall be served, either personally, by office or substitute service, or by certified or registered mail, return receipt requested.

1.4.3 Notice of Civil Penalty Assessment (NCP)

Under Chapter 11, Section 11.5.6 of the Rules and Regulations, an NCP is a formal enforcement action which:

- Is issued by the General Manager of designee through written notice, according to Chapter 11, Section 11.5.5.1 of the Rules and Regulations;
- Is calculated according to Chapter 11, Section 11.6 of the Rules and Regulations
- Specifies the violation, the reasons for the level of enforcement action taken, and the proposed penalty assessment.
- May be issued for the occurrence of any class of violation, for any class of repeated or continuing documented violations, or where a person has failed to comply with an NOV or other Administrative Orders.
- The amount of any civil penalty shall be determined through the use of matrices and formula contained in subsection Chapter 11, Section 11.6.2.

1.4.4 Memorandum of Agreement and Order (MAO)

A MAO is a formal enforcement action, which is in the form of a stipulated final order or consent order issued and signed by the Director or designee on behalf of the District and the authorized representative of the subject party. A MAO:

- May be issued for any class of violation;
- May be negotiated between the District and the Respondent after or concurrent with the issuance of a NON, NOV, or NCP;
- Shall set forth action to be taken and set civil penalties.

1.5 ABATEMENT AND OTHER REMEDIES

Under **Chapter** 11, Section 11.11 of the Rules and Regulations, the District, following the initial enforcement response, shall not be prevented from entering on the property, testing the water, and disconnecting, sealing, or otherwise abating any unauthorized connection to the storm water or system discharger violating any permit, this ordinance, or water quality standards.

Under Chapter 11, Section 11.8 of the Rules and Regulations, the District is not limited from **seeking** other legal or equitable remedies in the proper court as provided by Oregon or Federal law.

1.6 RIGHT TO HEARING

Chapter 11, Section 11.9 of **the** Rules and Regulations states that a civil penalty shall be due and payable within twenty-one (21) business days after the decision is final. The decision shall be final unless the respondent files a written Notice of Appeal and Request for Hearing within fourteen (14) business days from the date of the decision.

In **filing** the Notice of Appeal and Request for Hearing, the respondent must provide the following information:

- Name of the Respondent and the case file number or permit number;
- Name and signature of the respondent and that the person is duly authorized to file such an appeal and is the contact representative;
- The date that the civil penalty or other formal enforcement action was received by the Respondent;
- The nature of the decision and the specific grounds for the appeal.

The appeal shall be limited to the issues raised in the petition.

Following receipt of the Respondent's notice, a hearing shall be conducted in accordance with ORS Chapter 183. The record of the hearing and the decision made shall be entered. The Respondent may appeal the findings of the hearing officer and file a right of review in the Circuit Court as described in Chapter 12, Section 12.4 of the Rules and Regulations

ATTACHMENT No. 1 Enforcement Matrix

ENFORCEMENT RESPONSE GUIDE MATRIX

This table represents the District's anticipated response to various violations of the District's Surface Water Rules & Regulations. Before proceeding with the responses listed in the table below, the first determination to be made is whether the Respondent has been issued an NPDES Permit by DEQ. If this is the case, DEQ is to be notified and they will be expected to follow through with an investigation and possible enforcement.

VIOLATION	CLASS	RESPONSIBLE PARTY	INITIAL RESPONSE	ADDITIONAL RESPONSE
Illicit Discharge into storm system (of minimum impact)	III	Individual/ Business	Outreach	<ul style="list-style-type: none"> • Second occurrence results in NON with report required. • Third occurrence classified as Class I resulting in NOV
Illicit Discharge into storm system (moderate environmental impact)	II	Individual/ Business	NON	<ul style="list-style-type: none"> • Requires report due in 5 days. • Second occurrence classified as Class I resulting in NOV
Illicit Discharge into storm system (significant environmental impact)	I	Individual/ Business	NOV/CP	<ul style="list-style-type: none"> • Requires actions to meet compliance within time frame • Failure to meet time frame results in civil penalty. See <i>Chapter 11: Section 11.5.6 Notice of Civil Penalty Assessment</i> to calculate CP
Failure to Report a Spill (minimum impact)	III	Individual/ Business	Outreach	<ul style="list-style-type: none"> • Second occurrence results in NON with report required. • Third occurrence classified as Class I resulting in NOV
Failure to Report a Spill (environmental impact)	II	Individual/ Business	NON	<ul style="list-style-type: none"> • Second occurrence classified as Class I resulting in NOV
Failure to meet Compliance Schedule milestones (<30 Days)	II		NON	<ul style="list-style-type: none"> • Failure to meet within 30 days issue NOV
Failure to meet Compliance Schedule milestones (>30 Days)	I		NOV	<ul style="list-style-type: none"> • Failure to meet within 15 days then issue civil penalty
Denial of Entry				<ul style="list-style-type: none"> • Obtain Warrant
Discharge Without a Permit	I	Business	NOV/CP	<ul style="list-style-type: none"> • Issue NOV and notify DEQ
Failure to Submit Required Timely Report or Plan	II	Individual/ Business	NON	<ul style="list-style-type: none"> • Second occurrence results in NOV

- A. All violations will be documented within one business day of identification and initially responded to within five (5) business days of source identification.
- B. If the Respondent does not possess an NPDES Permit and is required to obtain one, DEQ shall be notified and the District will proceed to conduct its own investigation and possible enforcement action.
- C. If the Respondent does not possess an NPDES Permit and is not required to obtain one, the District will proceed to conduct its investigation and possible enforcement action.
- D. Initial enforcement response involving contact with the Respondent and requesting information on corrective or preventative action(s) will occur within five (5) business days of the violation.
- E. Follow up actions for continuing or recurring violations will be taken within 60 days for the initial enforcement response. For all continuing violations, the response will include a compliance schedule.
- F. At a minimum, a third NOV within 36 months automatically results in the issuance of a civil penalty.
- G. Unless the following non-stormwater discharges are identified in a particular case as a significant source of pollutants, those discharges are not considered illicit discharges:
 - Water Line Flushing
 - Landscape Irrigation
 - Diverted Stream Flows
 - Rising Ground Waters
 - Uncontaminated Groundwater Infiltration
 - Uncontaminated Pumped Groundwater
 - Discharges from Potable Water Sources
 - Start Up Flushing of Groundwater Wells
 - Potable Groundwater Monitoring Wells
 - Flows from Riparian Habitats & Wetlands
 - Street Wash Waters
 - Draining & Flushing of Municipal Potable Water Storage Reservoirs
 - Discharges of Treated Water from Investigation, Removal, and Remedial Actions Approved by DEQ Under ORS 465
 - Discharges or Flows from Emergency Fire Fighting Activities
 - Foundation Drains
 - Air Conditioning Condensate
 - Irrigation Water
 - Springs
 - Water from Crawl Space Pumps
 - Footing Drains
 - Lawn Watering
 - Individual Residential Car Washing
 - Charity Car Washing
 - De-chlorinated Swimming Pool Discharges