

# CITY OF KIRKLAND - SIMPLIFIED DRAINAGE REVIEW AND SMALL-SITE CONSTRUCTION STORMWATER POLLUTION PREVENTION (CSWPP) TEMPLATE



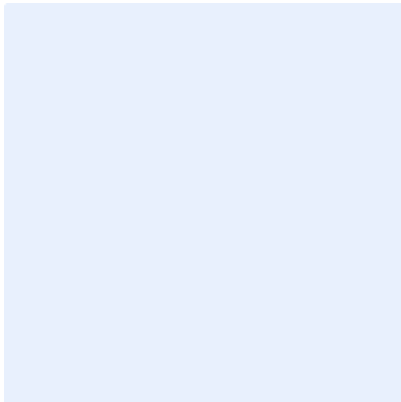
Project Name  
Date of Submittal  
PE License No.

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PE stamp (if required per Appendix C.1.5):



*For office use:*

City of Kirkland Permit #

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# SIMPLIFIED REVIEW & SMALL-SITE CSWPP INFORMATION

## *Project*

Site Address	Click here to enter text.
Parcel Number(s)	Click here to enter text.
Receiving Waterbody	Click here to enter text.

## *Applicant Contact*

Permittee/Owner	Click here to enter text.
Phone Number	Click here to enter text.
Address	Click here to enter text.
Developer	Click here to enter text.
Phone Number	Click here to enter text.
Address	Click here to enter text.
Operator/Contractor	Click here to enter text.
Phone Number	Click here to enter text.
Address	Click here to enter text.

## *Small-Site CSWPP Contact*

Name	Click here to enter text.
Organization	Click here to enter text.
Phone Number	Click here to enter text.

## *Simplified Drainage Report and Small-Site CSWPP Prepared By*

Name	Click here to enter text.
Organization	Click here to enter text.
Phone Number	Click here to enter text.

## *Project Construction Dates*

Activity/Phase	Click here to enter text.
Start Date	Click here to enter text.
End Date	Click here to enter text.

**NOTE:** *Bring the contact information for the applicant and the contractor to the pre-submittal conference or first meeting with City officials following completion of the report. Complete this form with the best information available, and update as personnel/construction timeline changes.*

## **PURPOSE**

This Simplified Drainage Review and Small-Site CSWPP template is based on the requirements of Appendix C of the 2021 King County Storm Water Design Manual (KCSWDM; or 'the manual') and is required to be completed and submitted for all simplified drainage review projects proposed within the City of Kirkland (City or COK). Instructions for use are given throughout the document in *italics*. All page numbers reference the manual, unless otherwise specified.

## **DISCLAIMER**

It is the responsibility of the applicant to ensure that all applicable codes and regulations have been addressed. Use of this template does not relieve the applicant of meeting all the project's legal obligations, even if they are related to erosion sediment control and stormwater pollution prevention and do not appear in the template. Any conflicts between this document and 2021 KCSWDM shall defer to the manual, with consideration of the City's Pre-Approved Plan Policy D-10, *The Addendum to the 2021 King County Surface Water Design Manual*. Any references to DLS-Permitting within the 2021 KCSWDM shall be considered equivalent to City of Kirkland.

# PROJECT BACKGROUND

## Existing Conditions

Hydrology and topography (average slope, soil, presence of groundwater):

- Drainage patterns: *Click here to enter text.*
- Critical Areas (wetlands, streams, high erosion risk, steep or difficult to stabilize slopes):  
*Click here to enter text.*

## City of Kirkland Waterbodies

Check the box next to the pollution type(s) (Category 5, unless advised otherwise) if the project site currently drains, or will drain during construction or developed condition, to the following waterbodies:

- Forbes Lake:
  - **Phosphorus**
- Forbes Creek:
  - **Bioassessment**
  - **Temperature**
  - **Dissolved Oxygen**
  - **Bacteria**
- Totem Lake:
  - **Dissolved Oxygen**
- Juanita Creek:
  - **Dissolved Oxygen**
  - **Temperature**
  - **Bacteria**
- Lake Washington @ Marina Park:
  - **Bacteria**
- Other:

If the project site will cause an adverse impact to existing 303(d) impairments at one or more of the listed waterbodies above, indicate how the project site will control those pollutants and/or mitigate impacts. An adverse impact may be caused by diverting stormwater to and/or away from a waterbody.

Refer to <https://fortress.wa.gov/ecy/waterqualityatlas/map.aspx> for unnamed waterbodies with impairments if applicable to project site location and discharge.

## **Proposed Construction Activities**

Description of site development (example: subdivision):

Description of construction activities (example: site preparation, demolition, excavation):

Description of site drainage including flow from and onto adjacent properties. Must be consistent with Site Map to be attached:

Description of final stabilization (example: extent of revegetation, paving, landscaping):

## Land Use Areas

	Pre-Developed	Developed	
Total <i>Project Site</i> * Area	0	0	sf
Total <i>Site</i> + Area	0	0	sf
Land Disturbing Activity	0	0	sf
Impervious Surface	0	0	sf
Percentage Impervious on <i>Project Site</i>	0	0	%
New Impervious		0	sf
Replaced Impervious		0	sf
New Pollution Generating Impervious Surface	0	0	sf
Replaced Pollution Generating Impervious Surface	0	0	sf
Pervious Surface	0	0	sf
New Pervious	0	0	sf
Replaced Pervious	0	0	sf
New Pollution Generating Pervious Surface	0	0	sf
Replaced Pollution Generating Pervious Surface	0	0	sf
Predominant Soil Type	Choose an item.		

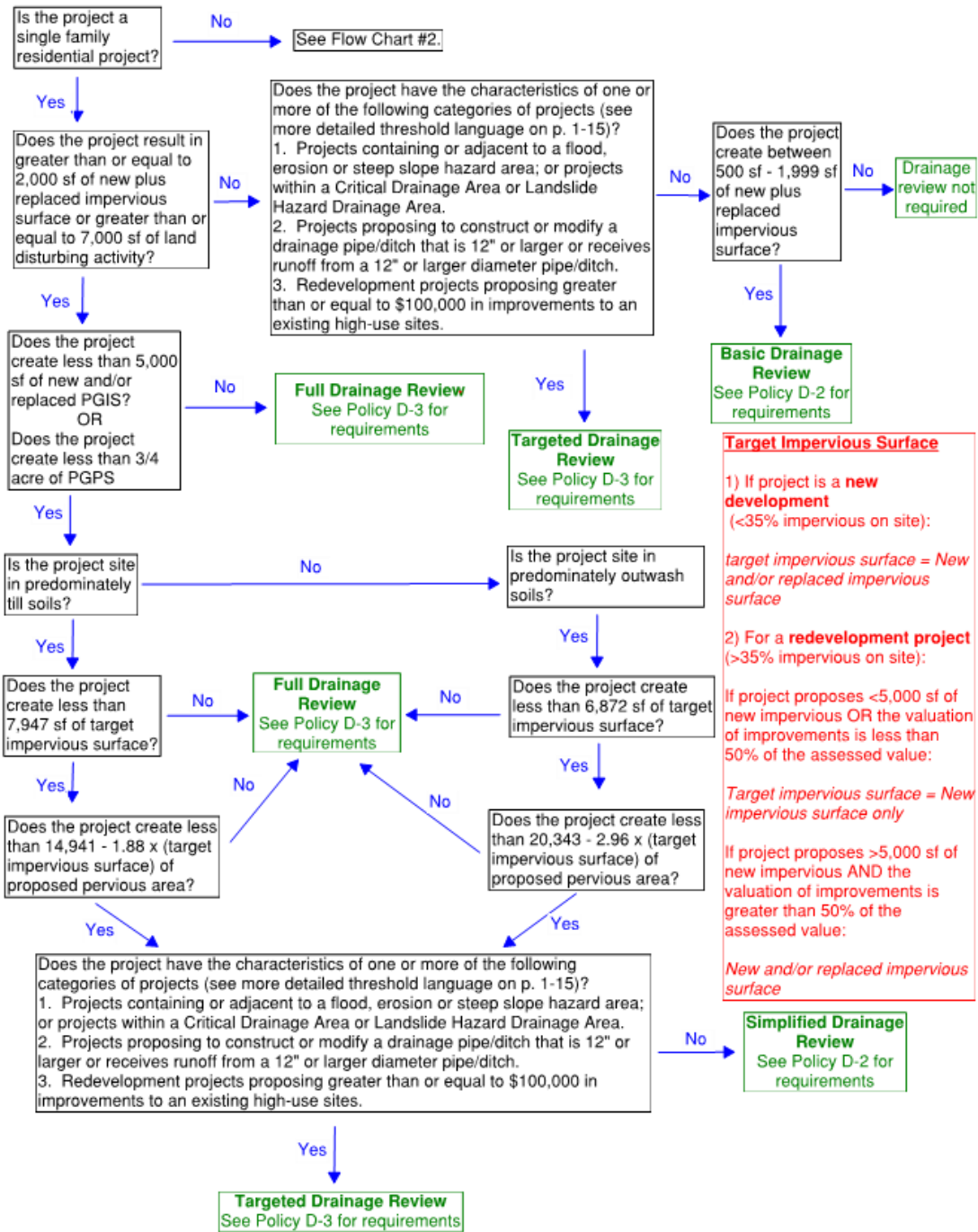
\**Project Site* as defined within the 2021 King County Stormwater Drainage Manual

+*Site* as defined within the 2021 King County Stormwater Drainage Manual

## SIMPLIFIED DRAINAGE PLAN ELIGIBILITY

*Before submittal, review the following flow chart to confirm that the project is eligible for simplified drainage review. Additional information is provided in Section 1.1.2.1 of the manual.*

### Flow Chart #1 - Single Family Residential Projects





## **WRITTEN DRAINAGE ASSESSMENT**

*Include a written description of the project in the space below. See C.4.1.1 (p. C-137) for instructions. See C.4.4.1 (p. C-144) for an example.*

***For office use:*** Note any post-revision or field changes in the space below.

## **SOILS REPORT/SPECIAL STUDIES RESULTS**

*Include a full geotechnical report prepared by or under the direction of a licensed onsite sewage system designer or geotechnical professional with your submittal. The report must meet the requirements of COK Policy D-8: Soil Information for Stormwater Development to Meet Flow Control BMP Requirements. Copy and paste the main recommendations regarding LID BMP feasibility in the space below.*

## **DOWNSTREAM DRAINAGE CONCERNS**

*Include a written description of any downstream drainage concerns identified by the City in the space below. The City requires all projects to conduct, at a minimum, a Level 1 downstream analysis if a downstream drainage concern is identified. Attach any email correspondence with the City. See 1.2.2.1.1 (p. 1-29) for guidance.*

## **STANDARD DRAINAGE AND FLOW CONTROL BMP SITE PLAN**

*Insert the standard drainage and flow control BMP site plan drawing following this page (does not need to be to scale). The plan must show all target impervious surfaces, new pervious surfaces and required flow control BMPs proposed for the project site. Refer to City of Kirkland Policy G-7 for required plan elements. See Figure C.4.2.A (p. C-141) for an example site plan. If this project is a subdivision project, a flow control BMP site plan must be provided for each lot.*

## **FLOW CONTROL BMP DESIGN/MAINTENANCE DETAILS**

*This section provides descriptions of approved BMPs based on Section C.2 (p. C-31). Use the following pages of this section to provide design specifications and maintenance instructions for each flow control BMP proposed. Indicate in the checkbox lists if a BMP will not be used. Refer to Section C.2 (p. C-31) for guidance.*

This project will:  apply flow control BMPs as specified in the following section; OR  
 demonstrate compliance with the LID Performance Standard of KCSWDM Section 1.2.9.

If applying flow control BMPs, indicate which types will be employed from the following checklist:

- Full Dispersion
- Full Infiltration
- Limited Infiltration
- Bioretention
- Permeable Pavement
- Basic Dispersion

**FULL DISPERSION**  
**(Reference KCSWDM C.2.1, p. C-32 for additional information)**

Select the type(s) of Full Dispersion BMP to be applied, or indicate that Full Dispersion will not be applied.

- Check if Full Dispersion will not be applied to this project
- Splash Blocks (Section C.2.1.3, p. C-34)
- Rock Pads (Section C.2.1.4, p. C-35)
- 10-foot Gravel Trench (Section C.2.1.5, p. C-35)
- 50-foot Gravel Trench (Section C.2.1.5, p. C-35)
- Sheet Flow from Impervious Surface (Section C.2.1.6, p. C-37)
- Sheet Flow from Non-Native Pervious Surface (Section C.2.1.6, p. C-37)

**Feasibility**

Use the space below to describe how the proposed Full Dispersion BMP meets the minimum design requirements of C.2.1.1 (p. C-32 & -33) and COK Storm Drainage Pre-approved Plans; OR explain why it is infeasible or inapplicable to apply full dispersion.

**Design**

If determined feasible, describe the device(s) used for Full Dispersion and how the relevant design specifications and native growth retention requirements of C2.1.2-C.2.1.8 (p. C-34 through -46) have been achieved in the space below.

**FULL INFILTRATION**

**(Reference KCSWDM C.2.2, p. C-48 for additional information)**

Select the type(s) of Full Infiltration BMP to be applied, or indicate that Full Infiltration will not be applied.

- Check if Full Infiltration will not be applied to this project
- Gravel Filled Trenches (Section C.2.2.3, p. C-50)
- Drywells (Section C.2.2.4, p. C-51)
- Ground Surface Depressions (Section C.2.2.5, p. C-51)

**Feasibility**

Use the space below to describe how the proposed Full Infiltration BMP meets the minimum design requirements of C.2.2.2 (p. C-48 through C-50) and COK Storm Drainage Pre-approved Plans; OR explain why it is infeasible or inapplicable to apply full infiltration.

**Design**

If determined feasible, describe the device(s) used for Full Infiltration and how the relevant design specifications of C2.2.3-C.2.2.5 (p. C-50 through C-56) have been achieved in the space below.

**LIMITED INFILTRATION**

**(Reference KCSWDM C.2.3, p. C-57 for additional information)**

Select the type of Limited Infiltration BMP to be applied, or indicate that Limited Infiltration will not be applied.

- Check if Limited Infiltration will not be applied to this project
- Gravel Filled Trenches (Section C.2.3.3, p. C-58)
- Drywells (Section C.2.3.4, p. C-58)
- Ground Surface Depressions (Section C.2.3.5, p. C-59)

**Feasibility**

Use the space below to describe how the proposed Limited Infiltration BMP meets the minimum design requirements of C.2.3.2 (p. C-57) and COK Storm Drainage Pre-approved Plans; OR explain why it is infeasible or inapplicable to apply limited infiltration.

**Design**

If determined feasible, describe the device(s) used for Limited Infiltration and how the relevant design specifications requirements of C.2.3.3-C.2.3.4 (p. C-57 through C-58) have been achieved in the space below.



**BIORETENTION**

**(Reference KCSWDM C.2.6, p. C-73 for additional information)**

Select the type of Bioretention BMP to be applied, or indicate that Bioretention will not be applied.

- Check if Bioretention will not be applied to this project
- Bioretention Cells
- Bioretention Swales
- Bioretention Planters
- Road-side Bioretention Ditch

**Feasibility**

Use the space below to describe how the proposed Bioretention BMP meets the feasibility requirements of C.2.6 (p. C-73 through C-76) and COK Storm Drainage Pre-approved Plans; OR explain why it is infeasible or inapplicable to apply bioretention.

**Design**

Describe how the relevant design specifications requirements of C2.6.1-C.2.6.2 (p. C-77 through C-81) have been achieved in the space below.

**PERMEABLE PAVEMENT**  
**(Reference KCSWDM C.2.7, p. C-86 for additional information)**

Select the type of Permeable Pavement BMP to be applied, or indicate that Permeable Pavement will not be applied.

- Check if Permeable Pavement will not be applied to this project
- Porous Concrete (Section C.2.7.2, p. C-90)
- Porous Asphaltic Concrete (Section C.2.7.3, p. C-91)
- Permeable Pavers (Section C.2.7.4, p. C-91)
- Modular Grid Pavement (Section C.2.7.5, p. C-91)
- Grassed Modular Grid Pavement (Section C.2.7.6, p. C-92)

**Feasibility**

Use the space below to describe how the proposed permeable pavement BMP meets the minimum design requirements of C.2.7 and C.2.7.1 (p. C-86 through C-90) and COK Storm Drainage Pre-approved Plans; OR explain why it is infeasible or inapplicable to apply permeable pavement.

**Design**

Describe the proposed type of Permeable Pavement and how the relevant design specifications requirements of C2.7.2-C2.7.6 (p. C-90 through C-92) have been achieved in the space below.

**BASIC DISPERSION**  
**(Reference KCSWDM C.2.4, p. C-60 for additional information)**

Select the type of Basic Dispersion BMP to be applied, or indicate that Basic Dispersion will not be applied.

- Check if Basic Dispersion will not be applied to this project
- Splash Blocks (Section C.2.4.2, p. C-61)
- Rock Pads (Section C.2.4.3, p. C-62)
- Gravel Filled Trenches (Section C.2.4.4, p. C-62)
- Sheet Flow (Section C.2.4.5, p. C-63)

**Feasibility**

Use the space below to describe how the proposed Basic Dispersion BMP meets the minimum design requirements of C.2.4.1 (p. C-60 through C-61) and COK Storm Drainage Pre-approved Plans; OR explain why it is infeasible or inapplicable to apply basic dispersion.

**Design**

Describe the device(s) used for Basic Dispersion and how the relevant design specifications requirements of C2.4.2-C.2.4.5 (p. C-61 through C-69) have been achieved in the space below.

**Appendix A & B**

*Please include the geotechnical report and WWHM 2012 report with your submittal.*

# SMALL-SITE CSWPP PLAN

## PURPOSE

Per Sections D.3.1 and C.1.4 of the 2021 KCSWDM, “any proposed project subject to Simplified Drainage Review as determined in Section 1.1.2.1 of the SWDM, and which disturbs soil on less than 1 acre of land, may use the Small Site CSWPP requirements” contained in these sections. Small Site CSWPP requirements may be found in both Appendix C and D of the 2021 KCSWDM.

A Small-Site Construction Stormwater Pollution Prevention (CSWPP) Plan shall be completed for all proposed projects that will conduct construction activities onsite, or offsite, within the City of Kirkland (City or COK) that require a simplified drainage review to comply with the following:

- [Core Requirement #5 of the 2021 King County Surface Water Design Manual \(KCSWDM\), and Appendix C of the KCSWDM \(1.2.5.2.C/C.1.4\).](#)
- [Storm Drainage Policy D-12 of the COK Pre-Approved Plans.](#)

Information provided in this document and on the plans shall be considered a minimum. The general contractor shall be solely responsible for providing necessary and adequate measures for proper erosion and sediment control related to the project site.

The general contractor is responsible for keeping streets clean and free of contaminants at all times and for preventing an illicit discharge (defined in KMC 15.52.090) into the municipal separate storm sewer system (MS4) or natural water body(ies). If construction activity causes an illicit discharge, the City of Kirkland Storm Maintenance Division will be instructed to clean and restore any publicly owned and maintained surface water assets, and other affected public infrastructure.

The Permittee, Contractor(s), Property Owner, and any other responsible party may be subject to cost recovery associated with the clean-up and response and may also be assessed monetary penalties (defined in KMC 1.12.200) associated with an illicit discharge. The minimum penalty is \$500. A fine may be reduced or waived for parties who immediately self-report violation to the City at (425) 587-3900. If a project is found in violation of the City’s codes regarding an illicit discharge in the future, those violations will be deemed “repeat violations” and the fine shall be determined by multiplying a surface water fine by the number of prior violations. “Repeat violation” means a violation of the same regulation in any location in the city by the same person or responsible party for which compliance previously has been sought or a notice of civil violation has been issued (KMC 1.12.020(I)).

A Final Inspection of the project will not be granted until all costs associated with a cost recovery and penalties are paid in full to the City of Kirkland.

The Small-Site CSWPP shall include project-related content in accordance with the "Simplified Site CSWPP Requirements" and the "CSWPP Implementation Requirements" outlined in the current KCSWDM (Section C.1.4.1 and C.1.4.2, respectively). The following plans are **REQUIRED FOR ALL PROPOSED PROJECTS:**

- **Erosion and Sediment Control (ESC) Plan**, and
- **Stormwater Pollution Prevention and Spill (SWPPS) Plan**

The Small-Site CSWPP is a living document reflecting current conditions and changes throughout the life of the project. These changes may be informal (i.e. hand-written notes and deletions). Update the Small-Site CSWPP when there is a deficiency in Best Management Practices (BMPs) or update to the original design (and any subsequent) Small-Site CSWPP.

### **CSWPP CONTACT and PREPARATION**

For all projects required to submit a Small-Site CSWPP, the applicant must comply with the following:

- The applicant shall designate a contact person who will be responsible for overseeing the installation and maintenance of required ESC and SWPPS measures and compliance with Appendix D of the 2021 KCSWDM and the King County 2021 Stormwater Pollution Prevention Manual during construction.
- The applicant and contractor(s) are responsible for implementation and maintenance of the approved Small-Site CSWPP plan and any additional measures required by the City.
- The contact person shall keep an organized logbook of construction activities.
- The contact person is not required to be a Certified Professional in Erosion and Sediment Control or a Certified Erosion and Sediment Control Lead. However, certification may be required if the City determines that ESC measures are inadequately installed, located, or maintained, soliciting the need to identify a CSWPP Supervisor. Under this circumstance, the applicant's selection of a CSWPP Supervisor may require approval by the City. City approval may be rescinded for non-compliance or not meeting qualifications, requiring the applicant to select another CSWPP Supervisor and obtain City approval prior to continuing work on the project site.

**UNDER SECTION D.3.1 OF THE 2021 KCSWDM: "ALL PROJECTS THAT DO ANY AMOUNT OF LAND DISTURBING ACTIVITY ARE SUBJECT TO THE ESC STANDARDS IN THIS APPENDIX [D] PER KCC [KING COUNTY CODE] 16.82.095(A) REGARDLESS OF WHETHER A PERMIT IS REQUIRED OR DRAINAGE REVIEW UNDER THE KING COUNTY SURFACE WATER DESIGN MANUAL IS TRIGGERED." THE CITY OF**

**KIRKLAND DEFINES THIS STATEMENT'S APPLICABILITY WITHIN KMC [KIRKLAND MUNICIPAL CODE] 15.52.060.**

**INSTRUCTIONS FOR USE**

- 1. Proceed through this section of the template in order and provide information about the project as instructed (in italics) for each section. Project details should correspond to the project plan set found onsite during construction to guide the contractor in establishing erosion and sediment control.***
- 2. If an entire section is not applicable to the project, please indicate this in the provided textbox and state why it is not applicable.***
- 3. Place drawings (e.g. ESC plan and details) directly after the page where they are requested.***
- 4. Other additions (calculations, Best Management Practices [BMP], maintenance guidelines, etc.) should be placed in an appendix. Update the table of contents accordingly (e.g. insert sheet as PDF for appendices and after the default table of contents).***
- 5. Update documents when the Small-Site CSWPP Contact has noted a deficiency in BMPs or deviation from original design.***

If this project is found to require a full or targeted drainage review, please see the following:

- Full or Targeted Drainage Review – submit a complete CSWPP as outlined in [COK Policy D-12](#). The City of Kirkland does not currently distribute a full or targeted drainage review template.
- Basic Drainage Review – not required to submit a CSWPP or Small-Site CSWPP. However, a drainage plan and ESC plan are still required for this type of review per [COK Policy D-2](#).

Any references to DLS-Permitting within the 2021 KCSWDM shall be considered equivalent to City of Kirkland.

## **NOTICE OF INTENT' ADVISORY**

For projects in Simplified Drainage review, ESC measures found in Section C.3 of Appendix C within the 2021 KCSWDM may be used if no more than 1 acre of soil will be disturbed by the project. Note: other ESC measures may be allowed or required by the City of Kirkland if the provided measures are inappropriate for the project or fail to contain sediment on the project site. Projects that disturb 1 acre or more of soil will be required to have an ESC plan developed by a civil engineer under a targeted drainage review.

For projects 1 acre or larger, applicants are required to submit a Notice of Intent (NOI) to WA State Department of Ecology (Ecology) and obtain coverage under [Ecology's Construction Stormwater General Permit](#) (CSWGP) issued as part of the Federal Clean Water Act. Applicants ***instead*** must submit a draft Ecology CSWPP at COK permit submittal, and final Ecology CSWPP at the COK Pre-Construction Meeting. The Ecology CSWPP meets King County and COK requirements listed above. For additional information, see the following Ecology website: <https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Construction-stormwater-permit>



**EROSION AND SEDIMENT CONTROL PLAN**

**A. MARK CLEARING LIMITS/MINIMIZE CLEARING**

***(Reference KCSWDM C.1.4.1.A, p. C-26 for additional information)***

Check this box if this section is not applicable to the project.

Prior to beginning land disturbing activities, all clearing limits, sensitive areas and their buffers, trees that are to be preserved within the construction area and any existing or proposed flow control BMP areas shall be clearly marked, both in the field and on the Small-Site CSWPP plan, to prevent damage and offsite impacts. Also, clearing shall be minimized to the maximum extent practicable. See "Mark Clearing Limits/Minimize Clearing," Section C.3.5, for more detailed specifications.

**Design & Installation (or why section is not applicable)**

*Use the following space to specify how clearing limits are to be delineated, and instructions on their installation.*

**Maintenance**

*Use the following space to specify maintenance requirements for the clearing limits measures.*



**B. MINIMIZE SEDIMENT TRACKED OFFSITE**

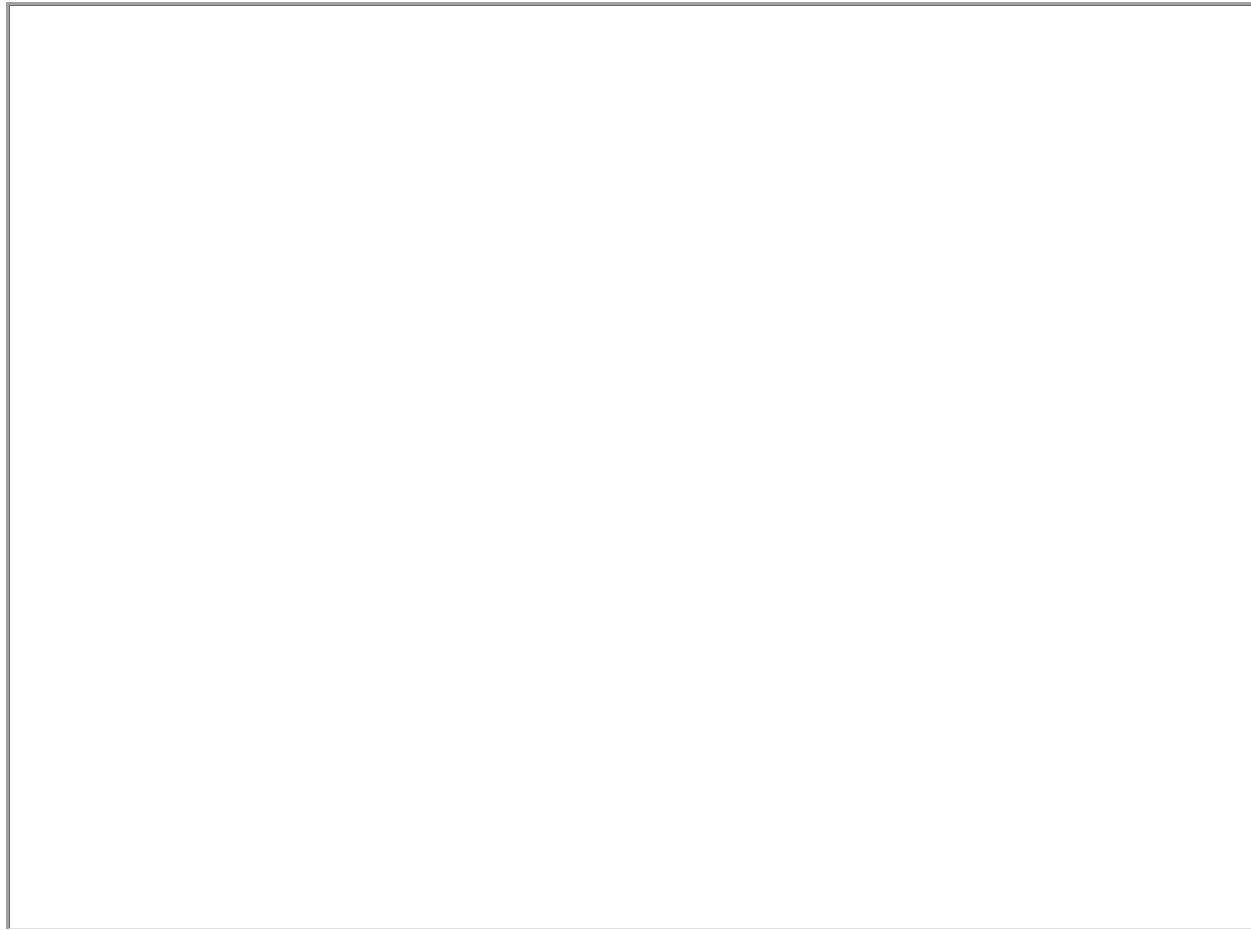
**(Reference KCSWDM C.1.4.1.B, p. C-26 and COK pre-approved plans CK-E.01 & E.02 for additional information)**

Check this box if this section is not applicable to the project.

1. Establish a stabilized entrance for construction vehicle access to minimize the tracking of sediment onto public roads. Entrance and exit shall be limited to one route, if possible. See "Stabilized Construction Entrance," Section C.3.1 for detailed specifications.
2. If sediment is tracked offsite, public roads shall be cleaned thoroughly at the end of each day, or more frequently during wet weather, if necessary to prevent sediment from entering waters of the state. Sediment shall be removed from roads by shoveling or pickup sweeping and shall be transported to a controlled sediment disposal area. Street washing will be allowed only after sediment is removed in this manner. Street wash wastewater shall be controlled by pumping back onsite, or otherwise be prevented from discharging into drainage systems tributary to surface waters. *This requirement shall be included as a note on the Small-Site CSWPP plan.*

**Specification (or why section is not applicable)**

*Use the following space to describe how offsite sediment tracking will be minimized.*



**C. CONTROL SEDIMENT**  
**(Reference KCSWDM C.1.4.1.C, p. C-26 for additional information)**

Check this box if this section is not applicable to the project.

Runoff from disturbed areas must pass through a sediment control measure to prevent the transport of sediment downstream until the disturbed area is fully stabilized. Sediment controls must be installed as one of the first steps in grading and shall be functional before other land disturbing activities take place. One or more the following sediment controls may be used to meet this requirement:

- Silt Fence (See Section C.3.6, p. C-116; COK Pre-Approved Plan CK-E.03)
- Vegetated Strip (See Section C.3.7, p. C-118)
- Triangular Silt Dike (See Section C.3.8, p. C-119; COK Pre-Approved Plan CK-E.07)
- Storm Drain Inlet Protection (See Section C.3.9, p. C-119; COK Pre-Approved Plan CK-E.11)

**Design & Installation (or why section is not applicable)**

*Use the following space to specify the measures to be employed for sediment control.*

**Maintenance**

*Use the following space to specify maintenance requirements for sediment control measures.*



**D. STABILIZE EXPOSED SOILS**

**(Reference KCSWDM C.1.4.1.D, p. C-27 for additional information)**

Check this box if this section is not applicable to the project.

All exposed and unworked soils shall be stabilized through the application of cover measures to protect the soil from the erosive forces of raindrop impact, flowing water, and wind erosion. One or more of the following cover measures may be used to meet this requirement during the construction phase:

- Mulching (See Section C.3.2 p. C-110)
- Nets and Blankets (See Section C.3.3, p.C-112; COK Pre-Approved Plan CK-E.06)
- Plastic Covering (See Section C.3.4, p. C-114; COK Pre-Approved Plan CK-E.05)
- Seeding (See Section C.3.10, p. C-125)
- Sodding (See Section C.3.11, p. C-127)

Cover measures shall be applied in accordance with the following requirements:

1. Cover measures must be installed if an area is to remain unworked for more than seven days during the dry season (May 1 to September 30) or for more than two consecutive working days during the wet season (October 1 to April 30). These time limits may be relaxed if an area poses a low risk of erosion due to soil type, slope gradient, anticipated weather conditions, or other factors. Conversely, the City may reduce these time limits if site conditions warrant greater protection (e.g., adjacent to significant aquatic resources or highly erosive soils) or if significant precipitation is expected.
2. Any area to remain unworked for more than 30 days shall be seeded or sodded unless the City determines that winter weather makes vegetation establishment infeasible. During the wet season, exposed ground slopes and stockpile slopes with an incline of 3 horizontal to 1 vertical (3H:1V) or steeper and with more than ten feet of vertical relief shall be covered if they are to remain unworked for more than 12 hours. Also during the wet season, the material necessary to cover all disturbed areas must be stockpiled on site. The intent of these cover requirements is to have as much area as possible covered during any period of precipitation.

**Design & Installation**

*Use the following space to specify the measures to be employed for stabilization of exposed soils.*

**Maintenance**

*Use the following space to specify maintenance requirements for the exposed soil stabilization measures.*



**E. CONTROL RUNOFF**

**(Reference KCSWDM C.1.4.1.E, p. C-27 for additional information)**

- Check this box if this section is not applicable to the project.

Stormwater runoff originating on the site and/or entering the site from offsite areas must be controlled so as to minimize erosion of disturbed areas and exposed cut and fill slopes, and to minimize erosive impacts on existing or proposed flow control BMP areas. The following runoff control measures shall be used as needed per the conditions of use and specifications for each measure:

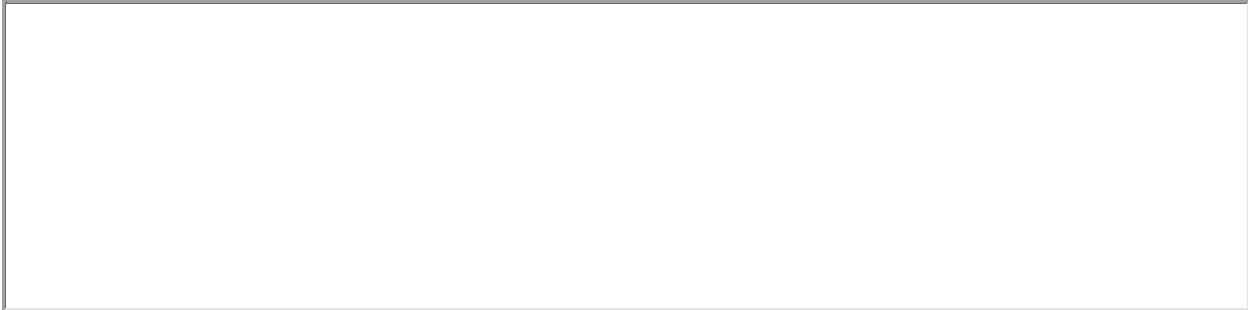
- Interceptor Dikes and Swales (see Section C.3.12, p. D-60 for conditions of use and specifications)
- Ditches (see Section C.1.13, p. D-129 for conditions of use and specifications)
- Pipe Slope Drain (see Section C.1.14, p. D-130 for conditions of use and specifications)
- Check Dams (COK Pre-Approved Plan CK-E.07)
- Catch Basin/Inlet Sedimentation Trap (COK Pre-Approved Plan CK-E.08)
- Temporary Sediment Pond (COK Pre-Approved Plan CK-E.09)
- Temporary Sediment Trap (COK Pre-Approved Plan CK-E.09A)
- Straw Wattles (COK Pre-Approved Plan CK-E.10)
- Storm Drain Protection Insert (COK Pre-Approved Plan CK-E.11)

**Design & Installation**

*Use the following space to specify the design and installation of runoff control measures. Show sizing for temporary sediment pond for both the 2 and 10 year storm events.*

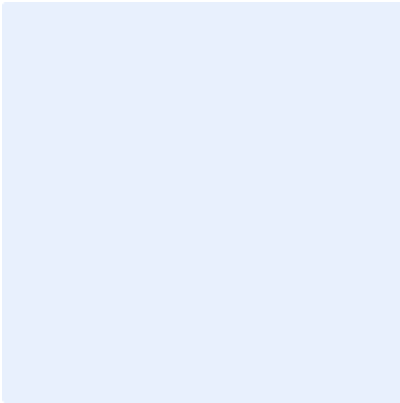
**Maintenance**

*Use the following space to specify maintenance requirements for the runoff control measures.*

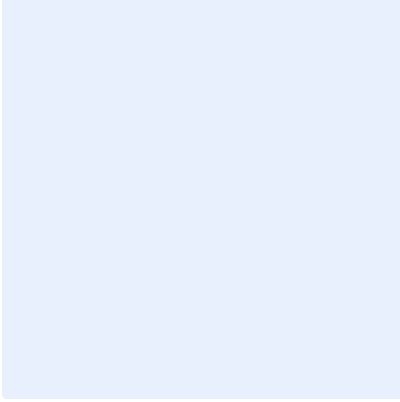


**Sizing Calculations**

*In the space below, paste an image of the report from WWHM stating the 2- and 10-year peak flows.*



*In the space below, paste calculations showing the sizing requirements.*



**F. CONTROL DEWATERING**

**(Reference KCSWDM C.1.4.1.F, p. C-27 for additional information)**

Check this box if this section is not applicable to the project.

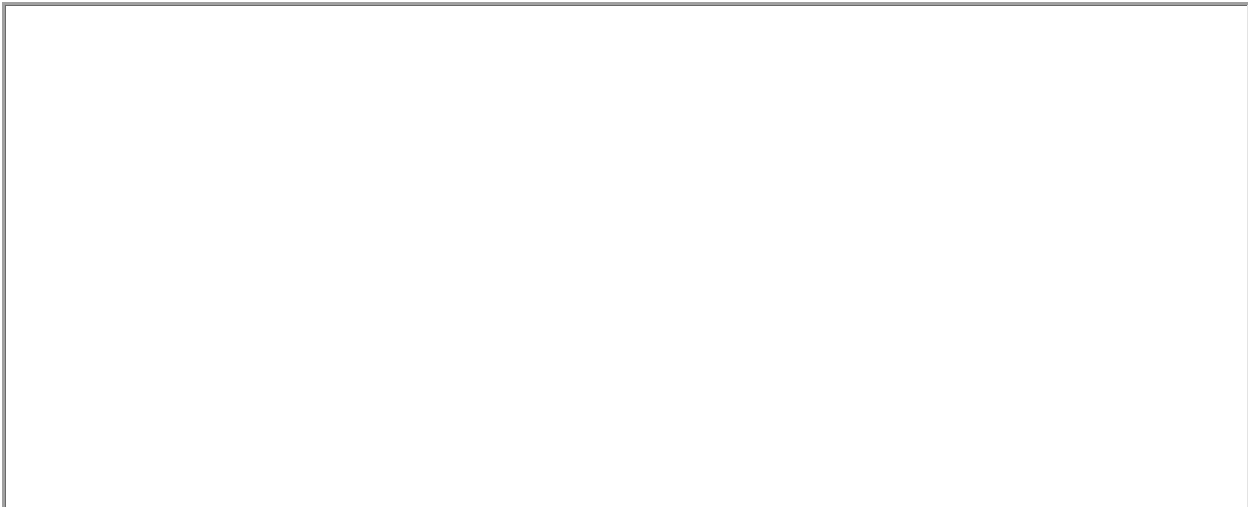
All surface water from disturbed areas shall be intercepted, conveyed to a sediment pond or trap, and discharged downslope of any disturbed areas. The purpose of surface water control is to collect and convey surface water so that erosion is minimized, and runoff from disturbed areas is treated by a sediment pond or trap.

**Design & Installation**

*Use the following space to specify the design and installation of dewatering control measures. If not applicable, include language from geotechnical report stating that no groundwater will be present on site. Note if there are contaminated soils on site.*

**Maintenance**

*Use the following space to specify maintenance requirements for the dewatering control measures.*



***G. CONTROL OTHER POLLUTANTS***

***(Reference KCSWDM C.1.4.1.G, p. C-27 for additional information)***

The requirements for this section are covered in the Stormwater Pollution Prevention and Spill (SWPPS) Plan, beginning on p. 27 of this document.

**H. PROTECT EXISTING AND PROPOSED FLOW CONTROL BMPS**  
**(Reference KCSWDM C.1.4.1.H, p. C-28 for additional information)**

Protection measures shall be applied/installed and maintained so as to prevent adverse impacts to existing flow control BMPS and areas of proposed flow control BMPS for the project. Adverse impacts can prompt the requirement to restore and replace affected BMPS. Protecting flow control BMP areas applies to all construction activities and the installation and maintenance of other BMPS.

**Design & Installation**

*Use the following space to specify the measures to be employed for protecting BMPS.*

**Maintenance**

*Use the following space to specify maintenance requirements for protecting BMPS.*

**I. MAINTAIN BMPS DURING CONSTRUCTION AND FINAL STABILIZATION**  
**(Reference KCSWDM C.1.4.1.I, p. C-28 for additional information)**

- 1. TESC BMPs shall be maintained and repaired as needed throughout construction to assure continued performance of their intended function in accordance with the BMP specifications
- 2. Prior to final construction approval, the project site shall be stabilized to prevent sediment-laden water from leaving the project site after project completion. All disturbed areas of the project site shall be vegetated or otherwise permanently stabilized. At a minimum, disturbed areas must be seeded and mulched to ensure that sufficient cover will develop shortly after final approval. Mulch without seeding is adequate for small areas to be landscaped before October 1.
- 3. All temporary ESC and SWPPS measures shall be removed within 30 days after final site stabilization is achieved or after the temporary measures are no longer needed. Trapped sediment shall be removed or stabilized onsite. Flow control BMPs impacted during construction shall be restored. Disturbed soil areas resulting from removal of measures or vegetation shall be permanently stabilized with seeding or sodding.

**Design & Installation**

*Use the following space to specify the measures to be employed for final stabilization.*

**Maintenance**

*Use the following space to specify maintenance requirements for final stabilization measure.*





**STORMWATER POLLUTION PREVENTION AND SPILL (SWPPS) MEASURES**  
**(Reference KCSWDM C.3.16, p. C-134 for additional information)**

The purpose of stormwater pollution prevention and spill control is to prevent, reduce, or eliminate the discharge of pollutants to onsite or adjacent stormwater systems or watercourses from construction-related activities such as materials delivery and storage, onsite equipment fueling and maintenance, demolition of existing buildings and disposition of demolition materials and other waste, and concrete handling, washout and disposal.

The implementation of this SWPPS plan and the construction, maintenance, replacement, and upgrading of the SWPPS facilities is the responsibility of the Permittee/Contractor until all construction is approved.

1. All pollutants, including waste materials, that occur onsite shall be handled and disposed of in a manner that does not cause contamination of stormwater. *Describe how effective pollutant handling and disposal procedures will be achieved.*

2. Cover, containment, and protection from vandalism shall be provided for all chemicals, liquid products, petroleum products, and non-inert wastes present on the site. Onsite fueling tanks shall include secondary containment. *Describe how cover and containment for materials, fuel and other pollutants will be achieved.*

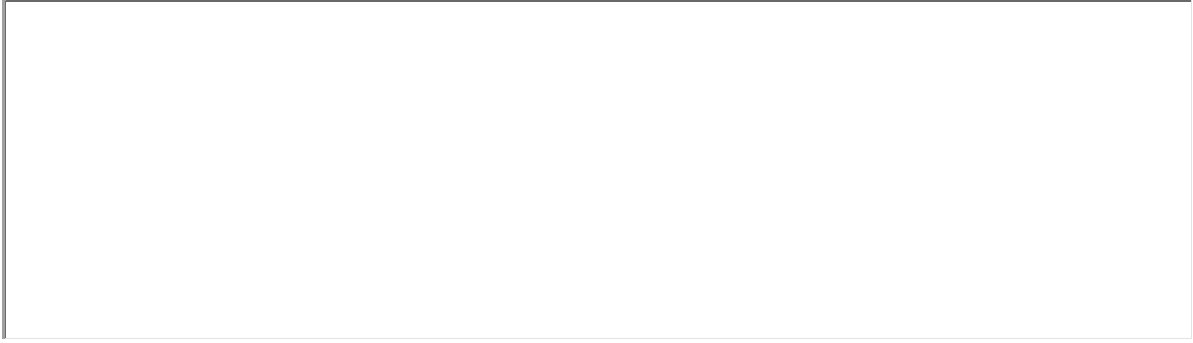
3. Maintenance and repair of heavy equipment and vehicles involving oil changes, hydraulic system drain down, solvent and de-greasing cleaning operations, fuel tank drain down and removal, and other activities may result in discharge or spillage of pollutants to the ground or into stormwater runoff must be conducted using spill prevention measures, such as drip pans. Contaminated surfaces shall be cleaned immediately following any discharge or spill incident.

Emergency repairs may be performed onsite using temporary plastic placed beneath and, if raining, over the vehicle. *Describe additional measures that will be employed to protect the environment from spills and drips of petroleum products and other pollutants.*

4. Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Manufacturers' recommendations for application rates and procedures shall be followed. *Describe any additional measures that will be employed to prevent the over-application and untimely application of chemicals and fertilizers.*

5. Stormwater discharges shall not cause or contribute to a violation of the water quality standard for pH in the receiving water. Measures shall be used to prevent or treat contamination of stormwater runoff by pH modifying sources. *Describe any additional measures that will be employed to prevent or treat contamination of stormwater runoff by pH modifying sources.*

6. For full compliance with KMC 15.52.110 - Water Quality Standards, the project may need to include measures for the permanent structures and features constructed under other permits. *Describe any additional measures that must be employed during construction.*



## **SITE INSPECTION, MONITORING, AND SAMPLING REQUIREMENTS AND ENFORCEMENT for CSWPP COMPLIANCE**

\* Regardless of drainage review (full, targeted, simplified, or basic) or if a drainage review is not required, all projects must comply with site inspection, monitoring, and sampling requirements.

A site logbook shall be maintained for all onsite construction activities and may include:

- **Previous versions of the Small-Site CSWPP and other permits related to the Small-Site CSWPP.**
- **Dated visual site inspections.**
- **Stormwater sampling data (water quality parameters of concern).**

### **SITE INSPECTIONS**

Site inspections will occur in all areas disturbed by construction activities and at all stormwater discharge points. The contact person for the Small-Site CSWPP shall evaluate and document the effectiveness of the installed BMPs and determine if it is necessary to repair or replace any of the BMPs to improve the quality of stormwater discharges. All maintenance and repairs shall be documented in the site logbook. All new BMPs that are used shall be detailed in the amended Small-Site CSWPP.

### **TURBIDITY CONTROL REQUIREMENTS FOR CONSTRUCTION STORMWATER DISCHARGE**

The contractor is responsible for reporting an Illicit Discharge Detection and Elimination (IDDE) when construction stormwater discharge is released offsite during a construction project that does not meet City water quality standards. City staff will investigate concerns as a violation of the Kirkland Municipal Code (KMC) 15.52. If a violation is determined, a sample will be taken at any location deemed to be a discharge point. This may be a point source (pipe) or non-point source (runoff). The public works construction inspector assigned to the project will work with the contractor to implement changes needed on the project's ESC and SWPPS plans to assure effort has been taken to reduce pollution caused by construction stormwater discharge.

#### **Basis of Requirements:**

Refer to the [2021 KCSWDM, Core Requirement 5, Chapter 1.2.5](#) and [Appendix D](#), and [Policy E-1 of the City of Kirkland Pre-Approved Plans](#) for more information on site discharge requirements. Refer to KMC 15.52.090 and KMC 01.12.200 for rules on enforcement.

If a violation results in a corrective action notice, the proposed changes found within the notice should be reflected in the updated Small-Site CSWPP, simplified drainage report, and plan set, if applicable.

The Small-Site CSWPP contact person may create their own Discharge Sampling Log or use the Discharge Sampling Log used by the City, provided at the end of this template.

## **MONITORING OF DISCHARGES**

The contact person is responsible for overseeing installation and maintenance of required ESC and SWPPS measures and compliance with Appendix D of the 2021 KCSWDM and the King County 2021 Stormwater Pollution Prevention Manual. Following the guidelines detailed by King County (KCSWDM C.1.4.2), the Small-Site CSWPP contact person shall do the following:

Daily:

- Inspect ESC and SWPPS facilities.
- Maintain ESC and SWPPS facilities to ensure continued proper functioning (KCSWDM C.1.4).
- Review the site for ESC and SWPPS during periods of active construction where maintenance conditions change with construction activity.

At least weekly, and within 24 hours of significant storms (see below for definition of *significant storm*) review the site for ESC and SWPPS:

- Take samples at discharge locations, or any location where discharge off-site is occurring, for visual inspection.
- Keep a log of all turbidity measurements (recorded as Nephelometric Turbidity Units [NTUs]) and make it available to the City of Kirkland upon request. If the project site is subject to a NPDES general permit for construction issued by the Ecology, then the project must also comply with the monitoring requirements of that permit.
- A *significant storm* is quantified as one resulting in greater than 0.5 inches of rain within the timespan of 24 hours; if temporary surface flow control or water quality facilities used for construction are overcapacity, a storm event can be categorized as significant.

## **ENFORCEMENT OF TURBIDITY CONTROL REQUIREMENTS**

Enforcement will follow this procedure:

1. To verify turbidity readings, the Small-Site CSWPP contact person will analyze discharge samples with a turbidity meter (following the procedures of KCSWDM 1.2.5.2.B/D.2.3.2).
2. If a discharge of the following characteristics is made to the municipal separate storm sewer system (MS4) or waters of the state, this may be considered an illicit discharge:
  - Turbidity test results in greater than the benchmark value of 25 NTU, but less than 250 NTU.
  - Observed to have a visible sheen or suspected to contain a pollutant.

The Small-Site CSWPP contact person shall do all of the following in response:

- A. Report incident(s) to the City of Kirkland at (425) 587-3900.
- B. Review the ESC and SWPPS plans for compliance and make appropriate revisions as soon as possible but no later than 7 days of the discharge that exceeded the benchmark of 25 NTU. The City of Kirkland will issue a Corrective Action Notice as reference for advised improvements. The Permittee may be subject to code compliance for cost recovery related to an illicit discharge as reimbursement of work completed by the City of Kirkland.
- C. Fully implement and maintain appropriate ESC and SWPPS measures as soon as possible but no later than 10 days after the discharge that exceeded the benchmark.
- D. Document the ESC and SWPPS implementation and maintenance in the site logbook.

For projects discharging to a sensitive area (e.g. onsite wetland), see the following:

- a. If the turbidity level is found to be less than 5 NTU above background level if background turbidity is 50 NTU or less, OR
  - b. If the turbidity level is found to be less than 10% above background level if background turbidity is greater than 50 NTU, THEN
  - c. This discharge is allowed **BUT INCIDENT SHALL STILL BE RECORDED AND REPORTED TO THE CITY OF KIRKLAND**. Correction Action Notice may be provided but cost recovery and fines are not anticipated.
  - d. Procedures for reducing turbidity are the same as above except the benchmark value is the background turbidity (instead of 25 NTU).
3. If the turbidity reading is higher than 250 NTUs for discharges made to the municipal separate storm sewer system (MS4) or waters of the state, the Small-Site CSWPP contact person shall do all of the following:
- A. Report incident(s) to the City of Kirkland at (425) 587-3900.
  - B. Review the ESC and SWPPS plans for compliance and make appropriate revisions as soon as possible but no later than 7 days of the discharge that exceeded the benchmark of 25 NTU. The City of Kirkland will issue a Corrective Action Notice as reference for advised improvements. The City may impose a "Stop Work Order" until turbidity levels return to a safe level (less than 250 NTUs). The Permittee may be subject to code compliance for cost recovery related to a discharge violation as reimbursement of work completed by the City of Kirkland. Cost recovery would be in addition to fines in relation to a violation of KMC 15.52.090.
  - C. Fully implement and maintain appropriate ESC and SWPPS measures as soon as possible but no later than 10 days after the discharge that exceeded the benchmark.
  - D. Document the ESC and SWPPS implementation and maintenance in the site logbook.

- E. Continue to sample discharges until turbidity is 25 NTU or lower, or the turbidity is no more than 10% over background turbidity. "Stop Work Order", if imposed, is lifted when turbidity samples are below 250 NTU.
4. If the project site is subject to a NPDES general permit for construction issued by the Ecology, then the project must also comply with the monitoring requirements of that permit.

## **pH CONTROL REQUIREMENTS FOR CONSTRUCTION STORMWATER DISCHARGE**

Prior to discharge, treated stormwater shall be sampled and tested for compliance with pH levels. pH shall be within the range of 6.5 to 8.5 standard units and not cause a change in the pH of the receiving water of more than 0.2 standard units.

pH monitoring is required for "Significant concrete work" (i.e. greater than 1000 cubic yards poured concrete or recycled concrete over the life of the project). The use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD] or fly ash) also requires pH monitoring.

For significant concrete work, pH sampling will start the first day concrete is poured and continue until it is cured, typically three (3) weeks after the last pour.

For engineered soils and recycled concrete, pH sampling begins when engineered soils or recycled concrete are first exposed to precipitation and continues until the area is fully stabilized.

If the measured pH is expected to be 8.5 or greater, the following measures will be taken:

1. Prevent high pH water from entering storm sewer systems or surface water.
2. Method for sampling pH shall be by pH meter probe.
3. Adjust or neutralize the high pH water to the range of 6.5 to 8.5 standard units (su) using appropriate technology such as carbon dioxide (CO<sub>2</sub>) sparging (liquid or dry ice).
4. Written approval will be obtained from Ecology prior to the use of chemical treatment other than CO<sub>2</sub> sparging or dry ice.

Recycled concrete and cement treatment are construction activities that result in the need for the pH control requirement. See [COK Policy D-16](#) for more information on these common practices to be better prepared for properly controlling pH in construction stormwater discharge.



**DISCHARGE SAMPLING LOG**

Small-Site CSWPP Contact Name: \_\_\_\_\_  
 24-Hour Emergency Contact Number: \_\_\_\_\_  
 Applicant: \_\_\_\_\_ Permit No.: \_\_\_\_\_ - \_\_\_\_\_  
 Site Address: \_\_\_\_\_  
 Background Turbidity: \_\_\_\_\_ NTUs

	Activity Date	Turbidity Reading (NTUs)	Discharge Location (Storm, Stream, Sanitary sewer, or non-point source)	Corrective Notice?	Stop Work Order?
Discharge Incident	__/__/__				
Water Quality Sample After Incident	__/__/__	__ NTUs	Storm system, Stream, Sanitary sewer, or non-point source	Yes/No	Yes/No
Corrective Notice/Stop Work Order	__/__/__				
Water Quality Sample After Notice/Stop Work Order	__/__/__	__ NTUs	Storm system, Stream, Sanitary sewer, or non-point source	Yes/No	Yes/No
Corrective Notice/Stop Work Order	__/__/__				

Notes/Comments:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\*Add rows as necessary to accommodate more incidents.

**SMALL-SITE CSWPP PLAN**

*Insert the Small-Site CSWPP Site Plan following this page. This plan must be to scale. See CK-E.04 for an example.*