



## Construction Stormwater Pollution Prevention Plan (CSWPPP) Worksheet for Construction Projects

A Construction Stormwater Pollution Prevention Plan (CSWPPP) is required for all projects that meet the thresholds for permitting in section 23.76.035 of the Clearing and Grading Code. The CSWPPP must be implemented beginning with initial soil disturbance and until final stabilization. The CSWPPP must include a narrative, drawings showing the locations of erosion and sediment control (ESC), and a turbidity and pH monitoring plan.

A log book must be maintained for all on-site construction activities and must include a record of the implementation of the CSWPPP, any updates to the CSWPPP, site inspections, and the results of any stormwater quality monitoring. A Construction Emergency Contact Sheet must also be kept in the log book and updated regularly.

### **Section One:** Written Narrative

This worksheet is meant to provide guidance on City of Bellevue and State of Washington stormwater pollution prevention requirements and a form for the development of a comprehensive written CSWPPP and plan set (ESC). This form identifies stormwater pollution prevention requirements and objectives, provides an extended list of specific Best Management Practices (BMPs) (based upon the State Department of Ecology 2005 Manual) for the Applicant to select to meet the requirements and objectives. The form provides space for the Applicant to describe how these BMPs will be implemented or modified to meet the stormwater control requirements given the unique characteristics of the project and site. Any water quality testing required under project permits or law shall be listed in the written narrative and provided for in the design of the project log book.

Not all BMPs listed in the first section of this form apply to or are appropriate for each project. The expectation is that the Applicant would review the stormwater requirements and objectives listed at the top of each Erosion Control Element and then select the BMPs that are appropriate for the project. The Applicant must explain in the written answer portion of each erosion control element how BMPs will be implemented to protect surface water quality. A drawing shall also be prepared that depicts the location of BMPs to be employed.

### **Section Two:** ESC Plan Set

The BMPs the Applicant selects in Section One, written narrative, to meet the requirements and objectives of the twelve erosion control elements must be shown on the ESC plan. Some BMP's can be added to the ESC as construction notes. The requirements for the ESC plan include the list of items included in the second part of this application form along with the BMPs selected by you to meet the requirements and objects of each of the 12 Erosion Control Elements that the Applicant lists and describes in the first section of this form.

*Log book:* Each project is required to retain both the written CSWPPP and ESC Plan on site along with the construction drawings. In addition, each project is required to maintain a log book to document updates to the CSWPPP and ESC Plan, installation and maintenance of BMPs, site inspections, and the results of any stormwater quality monitoring. The Applicant shall keep the log book on site at all times when construction is occurring. Sample log book pages (site inspection, turbidity monitoring, etc) are included with this form for use by the Applicant. Modification of the log book page may be needed to fit the requirements of other permits issued for the project.

## Background Information

Applicant: \_\_\_\_\_

Property Owner, if different from Applicant: \_\_\_\_\_

Contact Person: \_\_\_\_\_

All questions and correspondence will be directed to the individual listed as Contact Person.

Address of Contact Person: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Project Title: \_\_\_\_\_

Site Address: \_\_\_\_\_

Parcel Number: \_\_\_\_\_

Give an accurate, brief description of the proposed project's scope and nature:

1. General description:

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\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_

2. Area of site (square feet): \_\_\_\_\_

3. Proposed area of land disturbance (square feet): \_\_\_\_\_

4. Proposed quantity of excavation (cubic yards): \_\_\_\_\_

5. Proposed quantity of fill (cubic yards): \_\_\_\_\_

6. Total proposed impervious area to be constructed (square feet) \_\_\_\_\_

7. Existing site conditions including descriptions of existing topography, existing vegetation, and existing drainage: \_\_\_\_\_

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8. Description of site soils including soil unit, erodibility, settleability, permeability, depth, texture, and soil structure: \_\_\_\_\_

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9. Description of adjacent areas which may be affected by site disturbance (i.e. streams, lakes, wetlands, residential areas, roads) \_\_\_\_\_

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10. Description of critical areas that are on or adjacent to the site. \_\_\_\_\_

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11. Describe potential erosion problems on site. \_\_\_\_\_

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12. Describe the intended sequence and timing of construction activities and any proposed construction phasing. \_\_\_\_\_

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13. Describe the construction schedule \_\_\_\_\_  
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14. Describe ownership and financial obligations for the project. Include bond forms and other evidence of financial responsibility for environmental liabilities associated with construction. \_\_\_\_\_  
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15. Engineering calculations for design of sediment ponds, diversion, waterways, etc. Also include calculations for runoff and stormwater detention design, if applicable.  
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## SECTION ONE: CSWPPP NARRATIVE

### EROSION CONTROL ELEMENT # 1 - Mark Clearing Limits.

#### Requirements – Mark Clearing Limits

1. Prior to beginning land disturbing activities, including clearing and grading, the Contractor shall clearly mark all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area. (These areas shall be clearly marked in the field and on the TESC plans to prevent damage and offsite impacts.)
2.
  - Plastic, metal, or stake wire fence shall be used to mark the clearing limits.
  - Lath and Flagging shall be used to mark the clearing limits.
3. The duff layer, native top soil, and natural vegetation shall be retained in an undisturbed state to the maximum extent practicable. If it is not practicable to retain the duff layer in place, it should be stockpiled on-site, covered to prevent erosion, and replaced immediately upon completion of the ground disturbing activities.

Select from the following Best Management Practices, (BMPs), the ones that the Contractor will implement on the Applicant’s site, to meet the erosion control requirements listed above.

- Preserve existing vegetation – BMP C 101
- Buffer Zones – BMP C102
- High Visibility Plastic or Metal Fence – BMP C103
- Stake and Wire Fence – BMP C104
- Tree Protection During Construction – BMP T101
- Lath and Flagging
- Other \_\_\_\_\_
- Not Applicable – See explanation below

*Best Management Practices: Volume 2, Construction Stormwater Pollution Prevention, of the Department of Ecology Stormwater Management Manual for Western Washington, is located at <http://www.ecy.wa.gov/pubs/0510030.pdf>*

**Note: The BMPs that the Contractor selects to address the “Mark Clearing Limits” erosion control element of the project need to be shown or added as a note on the TESC plan.**

Describe what actions will be taken to accomplish these requirements and objectives, given the unique circumstances of the project and or site. The Applicant must to explain the site conditions or project design features that allow the project to meet the erosion control requirements using some or all of the BMPs listed above.

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## EROSION CONTROL ELEMENT # 2 - Establish Construction Access.

### Requirements – Establish Construction Access

1. Construction vehicle access and exit shall be limited to one route, if possible, or two for linear projects such as roadways where more than one access is necessary for large equipment maneuvering.
2. Access point(s) shall be stabilized with a pad of quarry spalls or crushed rock prior to traffic leaving the construction site to minimize the tracking of soil onto public roads.
3. Wheel wash or tire baths should be located on site, if applicable.
4. If soil is tracked off site, the Contractor shall clean paved roads if necessary to prevent sediment from entering surface waters. Sediment shall be removed from roads by shoveling or pickup sweeping and shall be transported to a controlled sediment disposal area. Street washing is not allowed.

Select from the following Best Management Practices, (BMPs), the ones that the Contractor will implement on your site, to meet the erosion control requirements listed above.

- Stabilized Construction Entrance – BMP C105
- Wheel Wash – BMP C106
- Construction Road/Parking Area Stabilization – BMP C107
- Other \_\_\_\_\_
- Not Applicable – See explanation below.

*Best Management Practices: Volume 2, Construction Stormwater Pollution Prevention, of the Department of Ecology Stormwater Management Manual for Western Washington, is located at <http://www.ecy.wa.gov/pubs/0510030.pdf>*

**Note: The BMPs that the Contractor selects to control the “Establish Construction Access” erosion control element of the project need to be shown or added as a note on the TESC plan.**

Describe what actions will be taken to accomplish these requirements and objectives, given the unique circumstances of the project and or site. The Applicant must to explain the site conditions or project design features that allow the project to meet the erosion control requirements using some or all of the BMPs listed above.

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### **EROSION CONTROL ELEMENT # 3 - Control Flow Rates.**

#### **Requirements – Control Flow Rates**

1. Any stormwater retention/detention facilities that are part of providing temporary erosion control for the project shall be constructed as one of the first steps in grading.

Select from the following Best Management Practices, (BMPs), the ones that the Contractor will implement on your site, to meet the erosion control requirements listed above.

- Sediment trap – BMP C240
- Temporary Sediment Pond – C241
- Other \_\_\_\_\_
- Not Applicable – See explanation below.

*Best Management Practices: Volume 2, Construction Stormwater Pollution Prevention, of the Department of Ecology Stormwater Management Manual for Western Washington, is located at <http://www.ecy.wa.gov/pubs/0510030.pdf>*

**Note: The BMPs that the contractor selects to control the “Control Flow Rates” erosion control element of the project need to be shown or added as a note on the TESC plan.**

Describe what actions will be taken to accomplish these requirements and objectives, given the unique circumstances of the project and or site. The Applicant must to explain the site conditions or project design features that allow the project to meet the erosion control requirements using some or all of the BMPs listed above.

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## EROSION CONTROL ELEMENT # 4 - Install Sediment Controls.

### Requirements – Install Sediment Controls

1. Prior to leaving the construction site or prior to discharge to an infiltration facility, stormwater runoff from disturbed areas shall pass through a sediment pond or other appropriate sediment removal BMP. Runoff from fully stabilized areas may be discharged without a sediment removal BMP, but must meet the flow control performance standard of protecting properties and waterways downstream from development sites from erosion due to increases in the volume, velocity, and peak flow rate of stormwater runoff from the project site, as required by the City of Bellevue.

(Full stabilization means concrete or asphalt paving; quarry spalls used as ditch lining; or the use of rolled erosion products, a bonded fiber matrix product, or established vegetative cover in a manner that will fully prevent soil erosion.)

2. Sediment ponds, vegetated buffer strips, sediment barriers or filters, dikes, and other BMPs intended to trap sediment on site shall be constructed as one of the first steps in grading. These BMPs shall be functional before other land disturbing activities take place.
3. Earthen structures such as dams, dikes and diversion, that are part of the erosion control plan, shall be seeded and mulched according to the timing indicated in Element #5.
4. BMPs intended to trap sediment on site must be located in a manner to avoid interference with the movement of juvenile salmonids attempting to enter off-channel areas or drainages, often during non-storm events, in response to rain event changes in stream elevation or wetted area.

Select from the following Best Management Practices, (BMPs), the ones that the Contractor will implement on your site, to meet the erosion control requirements listed above.

- Straw Bale Barrier – BMP C230
- Brush Barrier – BMP C231
- Gravel Filter Berm – BMP C232
- Silt Fence – BMP C233
- Vegetated strip – BMP C234
- Straw wattles – BMP C235
- Sediment Trap –BMP C240
- Temporary Sediment Pond – BMP C241
- Construction Stormwater Chemical Treatment – BMP C250
- Construction Stormwater Filtration – BMP C251

- Other \_\_\_\_\_
- Not Applicable – See explanation below.

*Best Management Practices: Volume 2, Construction Stormwater Pollution Prevention*, of the Department of Ecology Stormwater Management Manual for Western Washington, is located at <http://www.ecy.wa.gov/pubs/0510030.pdf>

**Note: The BMPs that the contractor selects to control the “Install Sediment Controls” erosion control element of the project need to be shown or added as a note on the TESC plan.**

Describe what actions will be taken to accomplish these requirements and objectives, given the unique circumstances of the project and or site. The Applicant must to explain the site conditions or project design features that allow the project to meet the erosion control requirements using some or all of the BMPs listed above.

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## EROSION CONTROL ELEMENT # 5 - Stabilize Soils

### Requirements – Stabilize Soils

1. From October 1 through April 30, no soils shall remain exposed and unworked for more than 2 days. From May 1 to September 30, no soils shall remain exposed and unworked for more than 7 days. This condition applies to all soils on site, whether at final grade or not. These time limits may be adjusted by the city if it can be shown that the average time between storm events justifies a different standard. (Requests to modify these timeframes must be made in writing and approved by the City of Bellevue before any deviation in these erosion control measures is permitted.)
2. Soils shall be stabilized at the end of the shift before a holiday or weekend if needed based on the weather forecast.
3. Soil stockpiles must be stabilized from erosion, protected with sediment trapping measures and when possible, be located away from storm drain inlets, waterways and drainage channels.
4. Linear construction activities, including right-of-way and easement clearing, roadway development, pipelines, and trenching for utilities, shall be conducted to meet the soil stabilization requirements. Contractors shall install the bedding materials, roadbeds, structures, pipeline, or utilities and re-stabilize the disturbed soils so that:

**From October 1 through April 30 no soils shall remain exposed and unworked for more than 2 days and**

**From May 1 to September 30, no soils shall remain exposed and unworked for more than 7 days.**

**CSWPPP Guidance:** Soil stabilization measures should be appropriate for the time of year, site conditions, estimated duration of use, and potential water quality impacts that stabilization agents may have on downstream water or ground water. Applicable practices include, but are not limited to, temporary and permanent seeding, sodding, mulching, plastic covering, erosion control fabrics and matting, soil application of polyacrylimide (PAM), the early application of gravel base on areas to be paved, and dust control.

Select from the following Best Management Practices, (BMPs), the ones that the Contractor will implement on the site, to meet the erosion control requirements listed above.

- Temporary & Permanent Seeding – BMP C120
- Mulching – BMP C121
- Nets & blankets – BMP C122
- Plastic Covering – BMP C123
- Sodding – BMP C124
- Topsoiling – BMP C125
- Polyacrylamide for Soil Erosion Protection – BMP C126

- Surface Roughening – BMP C130
- Gradient Terraces – BMP C131
- Dust Control – BMP C140
- Small project construction stormwater pollution prevention - BMP C180
- Other \_\_\_\_\_
- Not Applicable – See explanation below.

*Best Management Practices: Volume 2, Construction Stormwater Pollution Prevention*, of the Department of Ecology Stormwater Management Manual for Western Washington, is located at <http://www.ecy.wa.gov/pubs/0510030.pdf>

**Note: The BMPs that the Contractor selects to control the “Stabilize Soils” erosion control element of the project need to be shown or added as a note on the TESC plan.**

Describe what actions will be taken to accomplish these requirements and objectives, given the unique circumstances of the project and or site. The Applicant must to explain the site conditions or project design features that allow the project to meet the erosion control requirements using some or all of the BMPs listed above.

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## EROSION CONTROL ELEMENT # 6 - Protect Slopes

### Requirements – Protect Slopes

1. Off-site stormwater (run-on) shall be diverted away from slopes and disturbed areas with interceptor dikes and/or swales. Off-site stormwater should be managed separately from stormwater generated on the site.
2. At the top of slopes drainage shall be collected in pipe slope drains or protected channels to prevent erosion. Temporary pipe slope drains shall handle the peak flow from a 10 year, 24 hour event assuming a Type 1A rainfall distribution. Alternatively, the 10-year and 25-year, 1-hour flow rates indicated by an approved continuous runoff model, increased by a factor of 1.6, may be used. Consult the Utilities Engineering Standards for sizing PERMANENT pipe slope drains.
3. Provide drainage to remove ground water intersecting the slope surface of exposed soil areas. Excavated material shall be placed on the uphill side of trenches, consistent with safety and space considerations.
4. Check dams shall be placed at regular intervals within channels that are cut down a slope. (Show a detail on TESC plan if this technique is to be used onsite.) Soils shall be stabilized as specified in Element # 5.
5. Minimize cut slope length and steepness. Slope surfaces shall be roughened.

**CSWPPP Guidance:** Consider soil type and its potential for erosion. Reduce slope runoff velocities by reducing the continuous length of slope with terracing and diversions, reduce slope steepness, and roughen slope surface.

Select from the following Best Management Practices, (BMPs), the ones that the Contractor will implement on the site, to meet the erosion control requirements listed above.

- Temporary & permanent seeding – BMP C120
- Nets & blankets – BMP C122
- Plastic covering – BMP C123
- Surface Roughening – BMP C130
- Gradient Terraces – BMP C131
- Interceptor dike and swale – BMP C200
- Pipe Slope Drains – BMP C204
- Subsurface Drains – BMP C205
- Level Spreader – BMP C206
- Other \_\_\_\_\_
- Not Applicable – See explanation below.

*Best Management Practices: Volume 2, Construction Stormwater Pollution Prevention*, of the Department of Ecology Stormwater Management Manual for Western Washington, is located at <http://www.ecy.wa.gov/pubs/0510030.pdf>

**Note: The BMPs that the Contractor selects to control the “Protect Slopes” erosion control element of your project need to be shown or added as a note on the TESC plan.**

Describe what actions will be taken to accomplish these requirements and objectives, given the unique circumstances of the project and or site. The Applicant must to explain the site conditions or project design features that allow the project to meet the erosion control requirements using some or all of the BMPs listed above.

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### **EROSION CONTROL ELEMENT # 7 - Protect Drain Inlets**

#### **Requirements – Protect Drain Inlets**

1. All storm drain inlets made operable during construction shall be protected so that stormwater runoff does not enter the conveyance system without first being treated to remove sediment.
2. All approach roads shall be kept clean. Sediment shall not be allowed to enter storm drains without prior and adequate treatment unless on-site treatment is provided before the storm drain discharges to surface waters.
3. Inlets should be inspected weekly at a minimum and daily during storm events. Inlet protection devices should be cleaned or removed and replaced when sediment has filled one-third of the available storage (unless a different standard is specified by the product manufacturer.)

Select from the following Best Management Practices, (BMPs), the ones that the Contractor will implement on the site, to meet the erosion control requirements listed above.

- Storm drain inlet protection – BMP C220
- Other \_\_\_\_\_
- Not Applicable – See explanation below.

*Best Management Practices: Volume 2, Construction Stormwater Pollution Prevention*, of the Department of Ecology Stormwater Management Manual for Western Washington, is located at <http://www.ecy.wa.gov/pubs/0510030.pdf>

**Note: The BMPs that the Contractor selects to control the “Protect Drain Inlets” erosion control element of the project need to be shown or added as a note on the TESC plan.**

Describe what actions will be taken to accomplish these requirements and objectives, given the unique circumstances of the project and or site. The Applicant must to explain the site conditions or project design features that allow the project to meet the erosion control requirements using some or all of the BMPs listed above.

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### **ELEMENT # 8 - Stabilize Channel and Outlets.**

#### **Requirements – Stabilize Channel Outlets**

1. All temporary on-site conveyance channels shall be designed, constructed and stabilized to prevent erosion from the expected peak 10 minute velocity of flow from a Type 1A, 10-year, 24-hour frequency storm for the developed condition. Alternatively, the 10-year, 1-hour flow rate indicated by an approved continuous runoff model, increased by a factor of 1.6, may be used.
2. Stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream reaches shall be provided at the outlets of all conveyance systems.

Select from the following Best Management Practices, (BMPs), the ones that the Contractor will implement on your site, to meet the erosion control requirements listed above.

- Channel lining – BMP C202
- Outlet protection – BMP C209
- Other \_\_\_\_\_
- Not Applicable – See explanation below.

*Best Management Practices: Volume 2, Construction Stormwater Pollution Prevention*, of the Department of Ecology Stormwater Management Manual for Western Washington, is located at <http://www.ecy.wa.gov/pubs/0510030.pdf>

**Note: The BMPs that the Contractor selects to control the “Stabilize Channel and Outlets” erosion control element of the project need to be shown or added as a note on the TESC plan.**

Describe what actions will be taken to accomplish these requirements and objectives, given the unique circumstances of the project and or site. The Applicant must to explain the site conditions or project design features that allow the project to meet the erosion control requirements using some or all of the BMPs listed above.

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### **EROSION CONTROL ELEMENT # 9 - Control Pollutants.**

#### **Requirements – Control Pollutants**

1. All pollutants, including waste materials and demolition debris, that occur onsite shall be handled and disposed of in a manner that does not cause contamination of stormwater. Woody debris may be chopped and spread on site.
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 (see Chapter 173-304 WAC for the definition of inert waste). On-site fueling tanks shall include secondary containment.
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 which 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.
4. Emergency repairs may be performed on-site using temporary plastic placed beneath and, if raining, over the vehicle. Wheel wash or tire bath wastewater shall be discharged to a separate on-site treatment system or to the sanitary sewer, when permitted.

5. 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.
  
6. BMPs shall be used to prevent or treat contamination of stormwater runoff by pH modifying sources. These sources include, but are not limited to, bulk cement, cement kiln dust, fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, and concrete pumping and mixer washout waters. Stormwater discharges shall not cause or contribute to a violation of the water quality standard for pH in the receiving water.
  
7. Construction sites with significant concrete work shall adjust the pH of stormwater if necessary to prevent violations of water quality standards.

Select from the following Best Management Practices, (BMPs), the ones that the Contractor will implement on your site, to meet the erosion control requirements listed above.

- Concrete Handling – BMP C151
- Sawcutting and Surfacing Pollution Prevention – BMP C152
- Material Delivery, Storage Containment – BMP C153
- Other \_\_\_\_\_
- Not Applicable – See explanation below.

*Best Management Practices:* Also see Volume 2, Construction Stormwater Pollution Prevention, of the Department of Ecology Stormwater Management Manual for Western Washington, located at <http://www.ecy.wa.gov/pubs/0510030.pdf>

**Note: The BMPs that the Contractor selects to control the “Control Pollutants” erosion control element of the project need to be shown or added as a note on the TESC plan.**

Describe what actions will be taken to accomplish these requirements and objectives, given the unique circumstances of the project and or site. The Applicant must to explain the site conditions or project design features that allow the project to meet the erosion control requirements using some or all of the BMPs listed above.

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## EROSION CONTROL ELEMENT # 10 - Control De-Watering.

### Requirements – Control De-Watering

1. Foundation, vault, and trench de-watering water, which have similar characteristics to stormwater runoff at the site, shall be discharged into a controlled conveyance system prior to discharge to a sediment trap or sediment pond. Channels must be stabilized, as specified in Element #8.
2. Clean, non-turbid de-watering water, such as well-point ground water, can be discharged to systems tributary to waters, as specified in Element #8, provided the de-watering flow does not cause erosion or flooding. These clean waters should not be routed through stormwater sediment ponds. February 2005 Volume II – Construction Stormwater Pollution Prevention 3-13
3. Highly turbid or contaminated dewatering water from construction equipment operation, clamshell digging, concrete tremie pour, or work inside a cofferdam, shall be treated separately from stormwater.

**CSWPPP Guidance:** Other disposal options, depending on site constraints, may include:

1. Infiltration
2. Transport offsite in a vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute surface waters,
3. Ecology-approved on-site chemical treatment or other suitable treatment technologies,
4. Sanitary sewer discharge with City and King County Wastewater Treatment Division approval.
5. Use of a sedimentation bag with outfall to a ditch or swale for small volumes of localized dewatering.

Select from the following Best Management Practices, (BMPs), the ones that the Contractor will implement on your site, to meet the erosion control requirements listed above.

- Level Spreader – BMP C206
- Infiltration (Provide details below and on TESC plan below and on the TESC plan.)
- Discharge to sanitary sewer (KC METRO and Bellevue Utilities permits required) – List permit numbers
- Other \_\_\_\_\_
- Not Applicable – See explanation below.

*Best Management Practices:* Also see Volume 2, Construction Stormwater Pollution Prevention, of the Ecology Stormwater Management Manual for Western Washington, located at <http://www.ecy.wa.gov/pubs/0510030.pdf>

**Note: The BMPs that the Contractor selects to control the “Control De-watering” erosion control element of the project need to be shown or added as a note on the TESC plan.**

Describe what actions will be taken to accomplish these requirements and objectives, given the unique circumstances of the project and or site. The Applicant must to explain the site conditions or project design features that allow the project to meet the erosion control requirements using some or all of the BMPs listed above.

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### **EROSION CONTROL ELEMENT # 11 - Maintain BMPs.**

#### **Requirements – Maintain BMPs**

1. All temporary and permanent erosion and sediment control BMPs shall be maintained and repaired as needed to assure continued performance of their intended function. Maintenance and repair shall be conducted in accordance with the BMP specifications.
2. All temporary erosion and sediment control BMPs shall be removed within 30 days after final site stabilization is achieved or after the temporary BMPs are no longer needed.
3. Trapped sediment shall be removed or stabilized on site. Disturbed soil resulting from removal of BMPs or vegetation shall be permanently stabilized.

Select from the following Best Management Practices, (BMPs), the ones that the Contractor will implement on your site, to meet the erosion control requirements listed above.

- Maintain and repair in accordance with BMP specifications
- Other \_\_\_\_\_
- Not Applicable – See explanation below.

*Best Management Practices:* Also see Volume 2, Construction Stormwater Pollution Prevention, of the Department of Ecology Stormwater Management Manual for Western Washington, located at <http://www.ecy.wa.gov/pubs/0510030.pdf>

**Note: The BMPs that the Contractor selects to control the “Maintain BMPs” erosion control element of the project need to be shown or added as a note on the TESC plan.**

Describe what actions will be taken to accomplish these requirements and objectives, given the unique circumstances of the project and or site. The Applicant must to explain the site

conditions or project design features that allow the project to meet the erosion control requirements using some or all of the BMPs listed above.

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## **EROSION CONTROL ELEMENT # 12 - Manage the Project.**

### **Requirements - Phasing of Construction: (If applicable)**

1. Development projects shall be phased where feasible in order to prevent soil erosion and, to the maximum extent practicable, the transport of soil from the site during construction.
2. Revegetation of exposed areas and maintenance of that vegetation shall be an integral part of the clearing activities for any phase.
3. Clearing and grading activities for developments shall be permitted only if conducted pursuant to an approved site development plan (e.g., subdivision approval) that establishes permitted areas of clearing, grading, cutting, and filling.

**CSWPPP Guidance:** When establishing these permitted clearing and grading areas, consideration should be given to minimizing removal of existing trees and minimizing disturbance/compaction of native soils except as needed for building purposes. These permitted clearing and grading areas and any other areas required to preserve critical or sensitive areas, buffers, native growth protection easements, or tree retention areas, shall be delineated on the site/TESC plans and the development site.

## **Requirements – Seasonal Work Limitations**

### 4. Seasonal Work Limitations:

**From October 1 through April 30**, clearing, grading, and other soil disturbing activities shall only be permitted if shown to the satisfaction of the local permitting authority that silt-laden runoff will be prevented from leaving the site through a combination of the following:

1. Site conditions including existing vegetative coverage, slope, soil type, and proximity to surface waters; and
2. Limitations on activities and the extent of disturbed areas; and
3. Proposed erosion and sediment control measures.

**CSWPPP Guidance:** Based on the information provided and/or local weather conditions, the City may expand or restrict the seasonal limitation on site disturbance. The City shall take enforcement action - such as a notice of violation, administrative order, penalty, or stop-work order under the following circumstances: – If, during the course of any construction activity or soil disturbance during the seasonal limitation period, soil leaves the construction site causing a violation of the surface water quality standard; or – If clearing and grading limits or erosion and sediment control measures shown in the approved TESC plan are not maintained.

The following activities are exempt from the seasonal clearing and grading limitations:

1. Routine maintenance and necessary repair of erosion and sediment control BMPs;
2. Routine maintenance of public facilities or existing utility structures that do not expose the soil or result in the removal of the vegetative cover to soil; and
3. Activities where there is one hundred percent infiltration of surface water runoff within the site in approved and installed erosion and sediment control facilities.

## **Requirements – Coordination with Utilities and Other Contractors**

### 5. Coordination with Utilities and Other Contractors:

The primary project proponent shall evaluate, with input from utilities and other Contractors, the stormwater management requirements for the entire project, including the utilities, when preparing the CSWPPP.

## **Requirements – Inspection and Monitoring**

### 6. Inspection and Monitoring:

All BMPs shall be inspected, maintained, and repaired as needed to assure continued performance of their intended function. Site inspections shall be conducted a person who is knowledgeable in the principles and practices of erosion and sediment control. The person must have the skills to 1) assess the site conditions and construction activities that could impact the quality of stormwater, and 2) assess the effectiveness of erosion and sediment control measures used to control the quality of stormwater discharges.

**Requirements – Erosion Control Lead** *Engineer selects one of following paragraphs*

7. An Erosion and Sediment Control Lead shall be identified in the Construction SWPPP and shall be on site or on-call at all times. Whenever inspection and/or monitoring reveals that the BMPs identified in the Construction SWPPP are inadequate, due to the actual discharge of or potential to discharge a significant amount of any pollutant, appropriate BMPs or design changes shall be implemented as soon as possible. Maintaining an Updated Construction SWPPP:

**OR**

7. A Certified Erosion and Sediment Control Specialist shall be identified in the Construction SWPPP and shall be on-site or on-call at all times. Certification may be obtained through an approved training program that meets the erosion and sediment control training standards established by Ecology. Whenever inspection and/or monitoring reveals that the BMPs identified in the Construction SWPPP are inadequate, due to the actual discharge of or potential to discharge a significant amount of any pollutant, appropriate BMPs or design changes shall be implemented as soon as possible. Maintaining an Updated Construction SWPPP:

**Requirements – Retain CSWPPP on-site, Modify as necessary.**

8. The Construction SWPPP shall be retained on-site with the construction drawings. The CSWPPP shall be modified whenever there is a change in the design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to surface waters. The CSWPPP shall be modified if, during inspections or investigations conducted by the owner/operator, or the City or state regulatory authority, it is determined that the SWPPP is ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site. The SWPPP shall be modified as necessary to include additional or modified BMPs designed to correct problems identified. Revisions to the SWPPP shall be completed within seven (7) days following the inspection.

Select from the following Best Management Practices, (BMPs), the ones that the Contractor will implement on your site, to meet the erosion control requirements listed above.

- Maintain and repair in accordance with BMP specifications
- Other

*Best Management Practices:* Also see Volume 2, Construction Stormwater Pollution Prevention, of the Department of Ecology Stormwater Management Manual for Western Washington, located at <http://www.ecy.wa.gov/pubs/0510030.pdf>

**Note: The BMPs that the Contractor selects to implement the “Manage the Project” erosion control element of the project need to be shown or added as a note on the TESC plan.**

Describe what actions will be taken to accomplish these requirements and objectives, given the unique circumstances of the project and or site. The Applicant must to explain the site conditions or project design features that allow the project to meet the erosion control requirements using some or all of the BMPs listed above.

Phase construction – describe \_\_\_\_\_

\_\_\_\_\_

Limit work to the dry season \_\_\_\_\_

\_\_\_\_\_

Inspect and monitor all BMPs \_\_\_\_\_

\_\_\_\_\_

Pollution prevention contact list – attach a list to be posed at job site \_\_\_\_\_

\_\_\_\_\_

Reporting and recordkeeping – Attach inspection forms and other site log forms \_\_\_\_\_

\_\_\_\_\_

Other \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## SECTION TWO: TESC PLANS

### TESC Plans

#### 1. Vicinity Map

Prepare a vicinity map or general location with enough detail to identify the location of the construction site and receiving waters within one mile of the site.

#### 2. Site Map

The site map must show the entire construction site with the following information:

- a. Legal description
- b. North Arrow
- c. Existing Road and Structures
- d. Boundaries of soil types and areas of potential erosion problems
- e. On-site or adjacent surface waters, and other critical areas
- f. Existing contours and drainage basins and the direction of flow for the different drainage areas
- g. Final and interim grade contours as appropriate, drainage basins, and the direction of stormwater flow during and upon completion of construction
- h. Areas of soil disturbance, including all areas affected by clearing, grading and excavation
- i. Locations where stormwater discharges to surface waters during and upon completion of construction.
- j. Existing unique or valuable vegetation and the vegetation that is to be preserved
- k. Cut and fill slopes indicating top and bottom of slope catch lines
- l. Stockpile, waste storage, and vehicle storage/maintenance areas (Contractor)
- m. Total cut and fill quantities and the method of disposal for excess material (Contractor)

#### 3. Conveyance Systems

Show temporary and permanent conveyance features either on the site map or on a separate map or drawing. Include the following:

- a. Designate locations for swales, interceptor trenches, or ditches.
- b. Show all temporary and permanent drainage pipes, ditches, or cut-off trenches required for erosion and sediment control.
- c. Provide minimum slope and cover for all temporary pipes or call out pipe inverts.
- d. Show grades, dimensions, and direction of flow in all ditches, swales, culverts and pipes.
- e. Provide details for bypassing off-site runoff around disturbed areas.
- f. Indicate locations and outlets of any dewatering systems.

#### 4. Location of detention BMPs

Show on the site map, or other map or drawing, the locations of stormwater detention BMPs

#### 5. Erosion and Sediment Control (ESC) BMPs

Show on the site map, or on a separate map or drawing, all major structural and nonstructural ESC BMPs. Include section views and details as necessary

#### 6. Detailed drawings

Any structural practices used that are not referenced in the DOE manual or other local manuals should be explained and illustrated with detailed drawings

**7. Other pollutant BMPs**

Indicate on the site map, or on a separate map or drawing, the location of BMPs to be used for the control of pollutants other than sediment.

**8. Monitoring locations**

Indicate on the site map the water quality sampling locations, if required by the City or the Department of Ecology. Sampling stations shall be located as described in the project permit approvals. (City, State and Federal Permits, if applicable)

**9. Notes**

Notes addressing construction phasing and scheduling shall be included on the drawings. Standard notes for erosion control plans are provided in Appendix A2 of the Clearing & Grading Development Standards.