







## SECTION ONE: CSWPPP NARRATIVE

### EROSION CONTROL ELEMENT # 1 – Preserve Vegetation/Mark Clearing Limits.

#### Requirements – Preserve Vegetation/Mark Clearing Limits

1. Before beginning land disturbing activities, including clearing and grading, clearly mark all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area.
2. Retain the duff layer, native top soil, and natural vegetation in an undisturbed state to the maximum degree practical

#### Additional Guidance

- Plastic, metal, or fabric fence may be used to mark the clearing limits. [Note: the difference between the practical use and proper installation of silt fencing and the proper use of clearing boundary fencing.]
- If it is not practical to retain the duff layer in place, then stockpile it on-site, cover it to prevent erosion, and replace it immediately when you finish disturbing the site.

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 Fence – BMP C103
- Tree Protection During Construction – BMP T101
- 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 <https://fortress.wa.gov/ecy/publications/parts/1410055part4.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 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.

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

### Requirements – Establish Construction Access

1. Limit construction vehicle access and exit to one route, if possible.
2. Stabilize access points with a pad of quarry spalls, crushed rock, or other equivalent BMPs, to minimize tracking sediment onto roads
3. Locate wheel wash or tire baths on site, if the stabilized construction entrance is not effective in preventing tracking sediment onto roads.
4. If sediment is tracked off site, clean the affected roadway thoroughly at the end of each day, or more frequently as necessary (for example, during wet weather). Remove sediment from roads by shoveling, sweeping, or pick up and transport the sediment to a controlled sediment disposal area.
5. Conduct street washing only after sediment is removed in accordance with the above bullet.
6. Control street wash wastewater by pumping back on site or otherwise preventing it from discharging into systems tributary to waters of the State.

### Additional Guidance

- Minimize construction site access points along linear projects, such as roadways. Street washing may require local jurisdiction approval.

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

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**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 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.

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

### Requirements – Control Flow Rates

1. Protect properties and waterways downstream of development sites from erosion and the associated discharge of turbid waters due to increases in the velocity and peak volumetric flow rate of stormwater runoff from the project site, as required by local plan approval authority.
2. Where necessary to comply with the bullet above, construct stormwater retention or detention facilities as one of the first steps in grading. Assure that detention facilities function properly before constructing site improvements (e.g. impervious surfaces).
3. If permanent infiltration ponds are used for flow control during construction, protect these facilities from siltation during the construction phase.

### Additional Guidance

- Conduct downstream analysis if changes in off-site flows could impair or alter conveyance systems, streambanks, bed sediment, or aquatic habitat. See Volume I, Chapter 3 for off-site analysis guidelines.
- Even gently sloped areas need flow controls such as straw wattles or other energy dissipation / filtration structures. Place dissipation facilities closer together on steeper slopes. These methods prevent water from building higher velocities as it flows downstream within the construction site.
- Outlet structures designed for permanent detention ponds are not appropriate for use during construction without modification. If used during construction, install an outlet structure that will allow for longterm storage of runoff and enable sediment to settle. Verify that the pond is sized appropriately for this purpose. Restore ponds to their original design dimensions, remove sediment, and install a final outlet structure at completion of the project.
- Erosion has the potential to occur because of increases in the volume, velocity, and peak flow rate of stormwater runoff from the project site. The local permitting agency may require pond designs that provide additional or different stormwater flow control. These requirements may be necessary to address local conditions or to protect properties and waterways downstream.
- Sites that must implement flow control for the developed site condition must also control stormwater release rates during construction. Construction site stormwater discharges shall not exceed the discharge durations of the pre-developed condition for the range of predeveloped discharge rates from ½ of the 2-year flow through the 10- year flow as predicted by an approved continuous runoff model. The pre-developed condition to be matched shall be the land cover condition immediately prior to the development project. This restriction on release rates can affect the size of the storage pond and treatment cells.

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.

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**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 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.

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

### **Requirements – Install Sediment Controls**

The Permittee must design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, the Permittee must design, install and maintain such controls to:

1. Construct sediment control BMPs (sediment ponds, traps, filters, etc.) as one of the first steps in grading. These BMPs shall be functional before other land disturbing activities take place.
2. Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site.
3. Direct stormwater runoff from disturbed areas through a sediment pond or other appropriate sediment removal BMP, before the runoff leaves a construction site or before discharge to an infiltration facility. Runoff from fully stabilized areas may be discharged without a sediment removal BMP, but must meet the flow control performance standard in Element #3, bullet #1.
4. Locate BMPs intended to trap sediment on site in a manner to avoid interference with the movement of juvenile salmonids attempting to enter off-channel areas or drainages.
5. Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal, and maximize stormwater infiltration, unless infeasible.
6. Where feasible, design outlet structures that withdraw impounded stormwater from the surface to avoid discharging sediment that is still suspended lower in the water column.

### **Additional Guidance**

- Outlet structures that withdraw impounded stormwater from the surface to avoid discharging sediment that is still suspended lower in the water column are for the construction period only. If the pond using the construction outlet control is used for permanent stormwater controls, the appropriate outlet structure must be installed after the soil disturbance has ended.

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.

- Brush Barrier – BMP C231
- Gravel Filter Berm – BMP C232
- Silt Fence – BMP C233
- Vegetated strip – BMP C234
- 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.

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**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 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.

## **EROSION CONTROL ELEMENT # 5 - Stabilize Soils**

### **Requirements – Stabilize Soils**

1. Stabilize exposed and unworked soils by application of effective BMPs that prevent erosion. Applicable BMPs include, but are not limited to: temporary and permanent seeding, sodding, mulching, plastic covering, erosion control fabrics and matting, soil application of polyacrylamide (PAM), the early application of gravel base early on areas to be paved, and dust control.
2. Control stormwater volume and velocity within the site to minimize soil erosion.
3. Control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion
4. Soils must not remain exposed and unworked for more than the time periods set forth below to prevent erosion.
  - During the dry season (May 1 - Sept. 30): 7 days.
  - During the wet season (October 1 - April 30): 2 days.
5. Stabilize soils at the end of the shift before a holiday or weekend if needed based on the weather forecast.
6. Stabilize soil stockpiles from erosion, protect with sediment trapping measures, and where possible, be located away from storm drain inlets, waterways, and drainage channels.
7. Minimize the amount of soil exposed during construction activity.
8. Minimize the disturbance of steep slopes.
9. Minimize soil compaction and, unless infeasible, preserve topsoil.

### **Additional Guidance**

- Soils must not remain exposed and unworked for more than the time periods set forth above to prevent erosion for linear projects.
- 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 waters or ground water.
- Ensure that gravel base used for stabilization is clean and does not contain fines or sediment.

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 / Composting– BMP C125
- Polyacrylamide (PAM) for Soil Erosion Protection – BMP C126
- Surface Roughening – BMP C130
- Gradient Terraces – BMP C131
- Dust Control – BMP C140
- Other
- Not Applicable – See explanation below.

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**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 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.

## EROSION CONTROL ELEMENT # 6 - Protect Slopes

### Requirements – Protect Slopes

1. Design and construct cut-and-fill slopes in a manner to minimize erosion. Applicable practices include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces (for example, track walking).
2. Divert off-site stormwater (run-on) or ground water away from slopes and disturbed areas with interceptor dikes, pipes, and/or swales. Offsite stormwater should be managed separately from stormwater generated on the site.
3. At the top of slopes, collect drainage in pipe slope drains or protected channels to prevent erosion.
  - Temporary pipe slope drains must handle the peak volumetric flow rate calculated using a 10-minute time step from a Type 1A, 10- year, 24-hour frequency storm for the developed condition. Alternatively, the 10-year, 1-hour flow rate predicted by an approved continuous runoff model, increased by a factor of 1.6, may be used. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the Western Washington Hydrology Model (WWHM) to predict flows, bare soil areas should be modeled as "landscaped" area.
4. Place excavated material on the uphill side of trenches, consistent with safety and space considerations.
5. Place check dams at regular intervals within constructed channels that are cut down a slope.

### Additional Guidance

- Where 15-minute time steps are available in an approved continuous runoff model, they may be used directly without a correction factor.
- Consider soil type and its potential for erosion. • Stabilize soils on slopes, as specified in Element #5.
- BMP combinations are the most effective method of protecting slopes with disturbed soils. For example use both mulching and straw erosion control blankets in combination.

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 – BMPC200
- Pipe Slope Drains – BMP C204
- Subsurface Drains – BMP C205
- Level Spreader – BMP C206
- Other
- Not Applicable – See explanation below.

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**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 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.

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

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

1. Protect all storm drain inlets made operable during construction so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment.
2. Clean or remove and replace inlet protection devices when sediment has filled one-third of the available storage (unless a different standard is specified by the product manufacturer).

### **Additional Guidance**

- Where possible, protect all existing storm drain inlets so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment.
- Keep all approach roads clean. Do not allow sediment and street wash water to enter storm drains without prior and adequate treatment unless treatment is provided before the storm drain discharges to waters of the State.
- Inlets should be inspected weekly at a minimum and daily during storm events.

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.

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**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 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.

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

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

1. Design, construct, and stabilize all on-site conveyance channels to prevent erosion from the following expected peak flows:
  - Channels must handle the peak volumetric flow rate calculated using a 10-minute time step 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. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the Western Washington Hydrology Model (WWHM) to predict flows, bare soil areas should be modeled as "landscaped area.
2. Provide stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent streambanks, slopes, and downstream reaches at the outlets of all conveyance systems.

## **Additional Guidance**

- The best method for stabilizing channels is to completely line the channel with a blanket product first, then add check dams as necessary to function as an anchor and to slow the flow of water.

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.

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**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 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.

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

### **Requirements – Control Pollutants**

1. Design, install, implement and maintain effective pollution prevention measures to minimize the discharge of pollutants.
2. Handle and dispose of all pollutants, including waste materials and demolition debris that occur on-site in a manner that does not cause contamination of stormwater
3. Provide cover, containment, and protection from vandalism for all chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment. On-site fueling tanks must include secondary containment. Secondary containment means placing tanks or containers within an impervious structure capable of containing 110% of the volume contained in the largest tank within the containment structure. Double-walled tanks do not require additional secondary containment.
4. Conduct maintenance, fueling, and repair of heavy equipment and vehicles using spill prevention and control measures. Clean contaminated surfaces immediately following any spill incident.
5. Discharge wheel wash or tire bath wastewater to a separate on-site treatment system that prevents discharge to surface water, such as closed-loop recirculation or upland land application, or to the sanitary sewer, with local sewer district approval.
6. Apply fertilizers and pesticides in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Follow manufacturers' label requirements for application rates and procedures.
7. Use BMPs to prevent contamination of stormwater runoff by pH modifying sources. The sources for this contamination 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, dewatering concrete vaults, concrete pumping and mixer washout waters.
8. Adjust the pH of stormwater if necessary to prevent violations of the water quality standards.

9. Assure that washout of concrete trucks is performed off-site or in designated concrete washout areas only. Do not wash out concrete trucks onto the ground, or into storm drains, open ditches, streets, or streams. Do not dump excess concrete on site, except in designated concrete washout areas. Concrete spillage or concrete discharge to surface waters of the State is prohibited.
10. Obtain written approval from Ecology before using chemical treatment other than CO<sub>2</sub> or dry ice to adjust pH

### **Additional Guidance**

- Wheel wash or tire bath wastewater should not include wastewater from concrete washout areas.
- Do not use upland land applications for discharging wastewater from concrete washout areas.
- Woody debris may be chopped and spread on site

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 – BMPC151
- Sawcutting and Surfacing Pollution Prevention – BMP C152
- Material Delivery, Storage Containment – BMP C153
- Concrete Washout Area – C154
- 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 <https://fortress.wa.gov/ecy/publications/parts/1410055part4.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 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.

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

### Requirements – Control De-Watering

1. Discharge foundation, vault, and trench dewatering water, which have characteristics similar to stormwater runoff at the site, into a controlled conveyance system before discharge to a sediment trap or sediment pond.
2. Discharge clean, non-turbid de-watering water, such as well-point ground water, to systems tributary to, or directly into surface waters of the State, as specified in Element #8, provided the de-watering flow does not cause erosion or flooding of receiving waters or interfere with the operation of the system. Do not route clean dewatering water through stormwater sediment ponds. Note that “surface waters of the State” may exist on a construction site as well as off site; for example, a creek running through a site.
3. Handle highly turbid or contaminated dewatering water separately from stormwater.
4. Other treatment or disposal options may include:
  - Infiltration.
  - Transport off-site in a vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters.
  - Ecology-approved on-site chemical treatment or other suitable treatment technologies.
  - Sanitary sewer discharge with Metro and City of Bellevue approval, if there is no other option.
  - Use of a sedimentation bag with outfall to a ditch or swale for small volumes of localized dewatering

### Additional Guidance

- Channels must be stabilized, as specified in Element #8.
- Construction equipment operation, clamshell digging, concrete tremie pour, or work inside a cofferdam can create highly turbid or contaminated dewatering water.
- Discharging sediment-laden (muddy) water into waters of the State likely constitutes violation of water quality standards for turbidity. The easiest way to avoid discharging muddy water is through infiltration and preserving vegetation.

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
- BMP C203 – Water Bars
- BMP C236 – Vegetative Filtration
- 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 <https://fortress.wa.gov/ecy/publications/parts/1410055part4.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 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.

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

### **Requirements – Maintain BMPs**

1. Maintain and repair all temporary and permanent erosion and sediment control BMPs as needed to assure continued performance of their intended function in accordance with BMP specifications.
2. Remove all temporary erosion and sediment control BMPs within 30 days after achieving final site stabilization or after the temporary BMPs are no longer needed.

### **Additional Guidance**

- Note: Some temporary erosion and sediment control BMPs are biodegradable and designed to remain in place following construction such as compost socks.
- Provide protection to all BMPs installed for the permanent control of stormwater from sediment and compaction. All BMPs that are to remain in place following completion of construction shall be examined and placed in full operating conditions. If sediment enters the BMPs during construction, it shall be removed and the facility shall be returned to the conditions specified in the construction documents.
- Remove or stabilize trapped sediment on site. Permanently stabilize disturbed soil resulting from removal of BMPs or vegetation.

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
- BMP C150 – Materials On Hand
- BMP C160 – Certified Erosion and Sediment Control Lead
- 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 <https://fortress.wa.gov/ecy/publications/parts/1410055part4.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 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.

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

### **Requirements – Manage the Project**

1. Phase development projects to the maximum degree practicable and take into account seasonal work limits.
2. Inspection and monitoring – Inspect, maintain, and repair all BMPs as needed to assure continued performance of their intended function. Conduct site inspections and monitoring in accordance with the Construction Stormwater General Permit or local plan approval authority.
3. Maintaining an updated construction SWPPP – Maintain, update, and implement the SWPPP in accordance with the Construction Stormwater General Permit.
4. Projects that disturb one or more acres must have, site inspections conducted by a Certified Erosion and Sediment Control Lead (CESCL). Project sites less than one acre (not part of a larger common plan of development or sale) may have a person without CESCL certification conduct inspections. By the initiation of construction, the SWPPP must identify the CESCL or inspector, who shall be present on-site or on-call at all times.

### **Additional Guidance for Site Inspections**

- The CESCL or inspector (project sites less than one acre) must have the skills to assess the:
  - Site conditions and construction activities that could impact the quality of stormwater.
  - Effectiveness of erosion and sediment control measures used to control the quality of stormwater discharges..
- The CESCL or inspector must examine stormwater visually for the presence of suspended sediment, turbidity, discoloration, and oil sheen. They must evaluate the effectiveness of BMPs and determine if it is necessary to install, maintain, or repair BMPs to improve the quality of stormwater discharges.

Based on the results of the inspection, construction site operators must correct the problems identified by:

- Reviewing the SWPPP for compliance with the 13 construction SWPPP elements and making appropriate revisions within 7 days of the inspection.
- Immediately beginning the process of fully implementing and maintaining appropriate source control and/or treatment BMPs as soon as possible, addressing the problems no later than within 10 days of the inspection. If installation of necessary treatment BMPs is not feasible within 10 days, the construction site operator may request an extension within the initial 10-day response period.
- Documenting BMP implementation and maintenance in the site log book (applies only to sites that have coverage under the Construction Stormwater General Permit).
- The CESCL or inspector must inspect all areas disturbed by construction activities, all BMPs, and all stormwater discharge points at least once every calendar week and within 24 hours of any discharge from the site. (For purposes of this condition,

individual discharge events that last more than one day do not require daily inspections. For example, if a stormwater pond discharges continuously over the course of a week, only one inspection is required that week.) The CESCL or inspector may reduce the inspection frequency for temporary stabilized, inactive sites to once every calendar month

### **Additional Guidance**

- **Phasing of Construction.**

Phase development projects where feasible in order to prevent soil erosion and, to the maximum extent practical, and prevent transporting sediment from the site during construction. Revegetate exposed areas and maintain that vegetation as an integral part of the clearing activities for any phase.

Clearing and grading activities for developments shall be permitted only if conducted using an approved site development plan (e.g., subdivision approval) that establishes permitted areas of clearing, grading, cutting, and filling. Minimize removing trees and disturbing or compacting native soils when establishing permitted clearing and grading areas. Show on the site plans and the development site 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 as may be required by local jurisdictions

- **Seasonal Work Limitations**

From October 1 through April 30, clearing, grading, and other soil disturbing activities is permitted only if shown to the satisfaction of the local permitting authority that the site operator will prevent siltladen runoff from leaving the site through a combination of the following:

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

Based on the information provided and/or local weather conditions, the local permitting authority may expand or restrict the seasonal limitation on site disturbance. The local permitting authority has the authority to 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, sediment 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 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.
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.

- **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 Construction SWPPP. **Inspection and Monitoring**

All BMPs must be inspected, maintained, and repaired as needed to assure continued performance of their intended function. Site inspections must be conducted by a person 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.

For construction sites one acre or larger that discharge stormwater to surface waters of the state, a CESCL must be identified in the construction SWPPP; this person must be on-site or on-call at all times. Certification must be obtained through an approved training program that meets the erosion and sediment control training standards established by Ecology.

Appropriate BMPs or design changes shall be implemented as soon as possible 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.

- **Maintaining an Updated Construction SWPPP**

Retain the Construction SWPPP on-site or within reasonable access to the site.

Modify the SWPPP 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 waters of the state.

The SWPPP must be modified if, during inspections or investigations conducted by the owner/operator, or the applicable local or state regulatory authority, it is determined that the SWPPP is ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site. Modify the SWPPP as necessary to include additional or modified BMPs designed to correct problems identified. Complete revisions to the SWPPP 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.

- BMP C150 – Materials On Hand
- BMP C160 – Certified Erosion and Sediment Control Lead
- BMP C162 – Scheduling
- 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 <https://fortress.wa.gov/ecy/publications/parts/1410055part4.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 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.

## ELEMENT # 13 – Protect Low Impact Development BMPs

### Requirements – Protect Low Impact Development BMPs

1. Protect all Bioretention and Rain Garden BMPs from sedimentation through installation and maintenance of erosion and sediment control BMPs on portions of the site that drain into the Bioretention and/or Rain Garden BMPs. Restore the BMPs to their fully functioning condition if they accumulate sediment during construction. Restoring the BMP must include removal of sediment and any sediment-laden Bioretention/rain garden soils, and replacing the removed soils with soils meeting the design specification.
2. Prevent compacting Bioretention and rain garden BMPs by excluding construction equipment and foot traffic. Protect completed lawn and landscaped areas from compaction due to construction equipment.
3. Control erosion and avoid introducing sediment from surrounding land uses onto permeable pavements. Do not allow muddy construction equipment on the base material or pavement. Do not allow sediment- laden runoff onto permeable pavements.
4. Pavements fouled with sediments or no longer passing an initial infiltration test must be cleaned using procedures from the local stormwater manual or the manufacturer's procedures.
5. Keep all heavy equipment off existing soils under LID facilities that have been excavated to final grade to retain the infiltration rate of the soils.

**Additional Guidance:** See Chapter 5: Precision Site Preparation, Construction & Inspection of LID Facilities in the LID Technical Guidance Manual for Puget Sound (2012) for more detail on protecting LID integrated management practices.

Note that the LID Technical Guidance Manual for Puget Sound (2012) is for additional informational purposes only. You must follow the guidance within this manual if there are any discrepancies between this manual and the LID Technical Guidance Manual for Puget Sound (2012).

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.

- Buffer Zone – BMP C102
- High Visibility Fence – BMP C103
- Interceptor Dike and Swale – BMP C200
- Grass-Lined Channels – BMP C201
- Check Dams – BMP C207

- Triangular Silt Dike (Geotextile-Encased Check Dam) – BMP C208
- Brush Barrier – BMP C231
- Silt Fence – BMP C233
- Vegetated Strip – BMP C234
- 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

<https://fortress.wa.gov/ecy/publications/parts/1410055part4.pdf>.

**Note: The BMPs that the Contractor selects to control the “Protect Low Impact Development 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 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.

# CONSTRUCTION EMERGENCY CONTACT SHEET

Date \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Address: \_\_\_\_\_

Type of Work: \_\_\_\_\_

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**Developer:** \_\_\_\_\_

Contact: \_\_\_\_\_ Office: \_\_\_\_\_ 24-hr: \_\_\_\_\_

**General Contractor:** \_\_\_\_\_

Contact: \_\_\_\_\_ Office: \_\_\_\_\_ 24-hr: \_\_\_\_\_

**Utilities Sub-Contractor:** \_\_\_\_\_

President/Owner: \_\_\_\_\_

Office: \_\_\_\_\_ Home: \_\_\_\_\_ 24-hr : \_\_\_\_\_

Project Manager: \_\_\_\_\_

Office: \_\_\_\_\_ Home: \_\_\_\_\_ 24-hr : \_\_\_\_\_

Superintendent: \_\_\_\_\_

Office: \_\_\_\_\_ Home: \_\_\_\_\_ 24-hr : \_\_\_\_\_

Foreman: \_\_\_\_\_

Office: \_\_\_\_\_ Home: \_\_\_\_\_ 24-hr : \_\_\_\_\_

Erosion Control Lead: \_\_\_\_\_

Office: \_\_\_\_\_ Home: \_\_\_\_\_ 24-hr: \_\_\_\_\_

## City of Bellevue Inspectors

Clearing & Grading Inspector: \_\_\_\_\_

Office: (425) 452- \_\_\_\_\_

Building Inspector: \_\_\_\_\_

Office: (425) 452- \_\_\_\_\_

# CONSTRUCTION EMERGENCY CONTACT SHEET

## INJURY or FIRE– Call 911

Project Location or Address (If no address, describe the location of the construction access so that it can be relayed to emergency responders)

**SPILL** (Any hazardous materials including diesel fuel, gasoline, hydraulic fluid that enters the storm drain system or receiving waters)

- Call Washington State Department of Ecology (24 hrs) 425-649-7000
- Call Utilities Operations & Maintenance 425-452-7840
- Call Clearing & Grading Inspector or 425-452-4570

## FISH KILL OR DISTRESS

- Call Washington Department of Fish and Wildlife Area Habitat Biologist, Larry Fisher 425-313-5683
- Call Clearing & Grading Inspector or 425-452-4570

**WATER QUALITY IMPACTS** (Site stormwater runoff turbidity exceeds 250 ntu)

- Call Washington State Department of Ecology (24 hrs) 425-649-7000
- Call Clearing & Grading Inspector or 425-452-4570

## ARCHAEOLOGICAL FINDS

- Call Clearing & Grading Inspector or 425-452-4570
- Call Army Corps of Engineers, Seattle office, Lyz Ellis, 206-764-3634 (This is all you need to do under the permit)  
Or if there is no response and there is a need for immediate help, call Dr. Whitlam at the Washington State Office of Historic and Archaeological Program (OHAP), 360-407-0771

# CSWPPP SITE INSPECTION FORM

Project \_\_\_\_\_ Permit No. \_\_\_\_\_

Inspector \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Inspection Type:     After a rain event     Weekly     Turbidity benchmark exceedance  
                            Other – explain: \_\_\_\_\_

Weather: \_\_\_\_\_

Precipitation:    Since last inspection \_\_\_\_\_ inches                      In last 24 hours \_\_\_\_\_ inches

Description of General Site Conditions: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Will existing BMPs need to be modified or removed, or other BMPs installed?**     YES     NO

If YES, list the action items to be completed on the following table:

Actions to be Completed	Date Completed/ Initials
1.	
2.	
3.	
4.	
5.	

**Was water quality sampling (turbidity and pH) part of this inspection?**     YES     NO

If yes, attach Turbidity & pH Monitoring Data Sheet

**Is the site in compliance with the CSWPPP and the permit requirements?**     YES     NO

- **If no**, indicate the tasks necessary to bring the site into compliance on the "Actions to be Completed" table above, and include dates each job will be completed.

- **If no, has the non-compliance been reported to the City of Bellevue?**     YES     NO

- **If no, should the CSWPPP be modified?**     YES     NO

I certify that this report is true, accurate, and complete, to the best of my knowledge and belief.

Name of Inspector (print) \_\_\_\_\_ Title/Qualification \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

# CSWPPP SITE INSPECTION FORM

Project \_\_\_\_\_ Permit No. \_\_\_\_\_  
 Inspector \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Site BMPs	Overall Condition	Need Repair?	Comments/Observations
<b>Element 1: Clearing Limits</b> <ul style="list-style-type: none"> <li>• Existing Vegetation</li> <li>• Plastic or Metal Fence</li> <li>•</li> </ul>	G F P G F P G F P	Y N Y N Y N	
<b>Element 2: Construction Access</b> <ul style="list-style-type: none"> <li>• Stabilized Construction Entrance</li> <li>•</li> <li>•</li> </ul>	G F P G F P G F P	Y N Y N Y N	
<b>Element 3: Control Flow Rates</b> <ul style="list-style-type: none"> <li>• Sediment Trap</li> <li>•</li> <li>•</li> </ul>	G F P G F P G F P	Y N Y N Y N	
<b>Element 4: Sediment Controls</b> <ul style="list-style-type: none"> <li>• Silt Fence</li> <li>• Straw Wattles</li> <li>•</li> <li>•</li> </ul>	G F P G F P G F P G F P	Y N Y N Y N Y N	
<b>Element 5: Stabilize Soils</b> <ul style="list-style-type: none"> <li>• Mulch</li> <li>• Plastic Covering</li> <li>•</li> <li>•</li> </ul>	G F P G F P G F P G F P	Y N Y N Y N Y N	
<b>Element 6: Protect Slopes</b> <ul style="list-style-type: none"> <li>• Plastic Covering</li> <li>• Seeding</li> <li>•</li> </ul>	G F P G F P G F P	Y N Y N Y N	
<b>Element 7: Protect Drain Inlets</b> <ul style="list-style-type: none"> <li>• Storm Drain Inlet Protection</li> <li>•</li> <li>•</li> </ul>	G F P G F P G F P	Y N Y N Y N	
<b>Element 8: Stabilize Channels &amp; Outlets</b> <ul style="list-style-type: none"> <li>• Outlet Protection</li> <li>•</li> <li>•</li> </ul>	G F P G F P G F P	Y N Y N Y N	

G=Good, F=Fair, P=Poor, Y=Yes, N=No

<b>Element 9: Control Pollutants</b> <ul style="list-style-type: none"> <li>• Concrete Handling</li> <li>• Material Delivery, Storage Containment</li> <li>• </li> </ul>	G    F    P G    F    P G    F    P	Y    N Y    N Y    N	
<b>Element 10: Control Dewatering</b> <ul style="list-style-type: none"> <li>• </li> <li>• </li> <li>• </li> </ul>	G    F    P G    F    P G    F    P	Y    N Y    N Y    N	
<b>Element 13 Protect Low Impact Development BMPs</b> <ul style="list-style-type: none"> <li>• Buffer Zones</li> <li>• High Visibility Fence</li> <li>• Silt Fence</li> <li>• Vegetated Strip</li> <li>• </li> </ul>	G    F    P G    F    P G    F    P G    F    P G    F    P	Y    N Y    N Y    N Y    N Y    N	

G=Good, F=Fair, P=Poor, Y=Yes, N=No