EROSION AND SEDIMENT CONTROL (ESC) FOR SMALL PROJECT AND SINGLE-FAMILY CONSTRUCTION

This fact sheet explains how and when to install Erosion and Sediment Control (ESC) measures required by your development permit or your inspector. ESC seeks to reduce soil erosion at construction sites and prevent sediment from leaving the site when erosion does occur. These measures should prevent the transport of sediment to streams, wetland, lakes, drainage systems, and adjacent properties during and following construction of a proposed project or other land disturbing activities.

When is ESC required?

- All development, including all redevelopment or new impervious surface, regardless of size, scope and nature that is subject to a City of Burien permit or approval, shall be subject to, at a minimum, the small site drainage review and those projects must provide temporary erosion and sediment control.
- All development involving single family homes, detached accessory dwelling units & garages located in critical areas are subject to phased ESC for land disturbance.

Why is ESC on a Small Construction Site required?

- The National Pollution Discharge Elimination System (NPDES) Phase II Permit, Washington State Regulations, and Burien City Code require ESC.
- Sediment plugging pipes and ditches can cause property damage and flooding and it is costly to clean. This can also cause severe downstream erosion.
- Solids suspended in the water will interfere with the photosynthesis of plant life that forms the base of the aquatic system food web.
- Fine sediment material may clog fish gills.
- Sediments may carry other pollutants, in the form of metals, pesticides, or nutrients, into streams.
- Sediments may also cause organic enrichment of streams, which disrupts the food web.
- Failure to comply with the ESC requirements can lead to enforcement under the city's stormwater management ordinance and building code.

What type of ESC tools or Best Management Practices (BMPs) should I use? The selected BMPs may vary and depend upon your site conditions. The common examples of BMPs are:

- **Silt Fencing:** Provides a temporary physical barrier to sediment from a construction site and reduce the runoff velocities. Silt fences must be installed correctly to be effective.
- **Mulching:** Straw, wood fiber, wood chips, bonded fiber matrix, compost, or cover methods such as nets and blankets and plastic covering. Mulching provides immediately temporary protection from exposed soil. Mulching should be used:
    1. During the wet season as a cover.
    2. Slope steeper than 3H: 1V.
    3. Areas, where there will not be worked for a long period.
- **Stabilized Construction Entrance:** Reduce the amount of sediment transported to paved streets by a vehicle during the construction
- **Other approved BMPs** may be used such as mark clearing limits, winter (or wet season) stabilization, dust control, storm drain inlet protection, street cleaning, temporary sediment pond, and final stabilization.
- Additional information and standards regarding ESC are available in 2009 King County Surface Water Design Manual, which has been adopted by the city.

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Silt Fencing	**Straw Mulching (from DOT)**	**Construction Entrance (from DOT)**

Figure: Sample ESC measures

ESC Inspection Process

At least three ESC inspections are required. The ESC inspections will be performed by city staffs. The inspectors will verify if the proper installation and maintenance have been made. Please call city's inspection line at (206) 248-5525 to request inspections. (Inspections may be requested as late as 7AM on the day you would like the inspection to be performed.)

- **ESC Inspection 1: Prior to clearing and grading activities**
  The applicant calls in and coordinates with an ESC inspector. The ESC inspector will outline the Erosion and Sediment Control (ESC) measures and process.

- **ESC Inspection 2: During Construction**
  The applicant contacts the ESC inspector for a site inspection after installing selected ESC BMPs. The inspector checks that all the BMPs are installed properly. No clearing and grading activities shall take place prior to an approval by the inspector. The inspector may conduct and monitor the selected tools during construction.

- **ESC Inspection 3: After Construction**
  The applicant contacts the inspector for a site inspection after completing the construction project. The inspector verifies that any disturbed soils left on the site are stabilized prior to occupancy.

For more information: Please contact the City of Burien for more information or for any question you may have about Erosion and Sediment Control, and stabilization measures. You can also review the King County Surface Water Design Manual for the Erosion and Sediment Control Standard online at http://www.kingcounty.gov/environment/waterandland/stormwater/documents/surface-water-design-manual.aspx