

SMALL PARCEL/PROJECT EROSION & SEDIMENT CONTROL (ESC)



CITY OF SHELTON

This fact sheet explains how and when to install Erosion and Sediment Control (ESC) measures required for a small parcel or project. 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, wetlands, lakes, drainage systems, and adjacent properties during and following construction of a proposed project or other land disturbing activities.

The City shall not grant any approval or permission to conduct a regulated activity unless the City Engineer, or designee, approves a stormwater site plan, which includes a *Small Parcel Erosion and Sediment Control Plan*.

What is considered as a Small Parcel or Project?

- Individual, detached, single-family residences and duplexes
- Creation or addition of less than five thousand square feet of impervious surface area (driveways, parking lots, etc.)
- Land disturbing activities of less than one acre

When is ESC required?

- New Development:
 - Land disturbing activities
 - Structural development, including construction, installation, or expansion of a building or other structure
 - Creation of impervious surfaces
 - Class IV general forest practices that are conversions from timber land to other uses
 - Subdivisions, short subdivisions, and binding site plans, as defined in Chapter 58.17.020 RCW
- Redevelopment:
 - The creation or addition of impervious surfaces
 - Structural development, including construction, installation, or expansion of a building or other structure
 - Land disturbing activities
 - Replacement of impervious surface that is not part of a routine maintenance activity
 - Land disturbing activities with structural or impervious redevelopment

Why is ESC on a Small Construction Site required?

- The National Pollution Discharge Elimination System (NPDES) Phase II Permit, Washington State Department of Ecology, and Shelton City Code all require ESC.
- Sediment can clog pipes and ditches, potentially causing property damage and/or flooding, and it is costly to clean. This can also result in 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, such as 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 reduces the runoff velocities. Silt fences must be installed correctly in order to be effective.
- **Mulching:** Straw, wood fiber, wood chips, bonded fiber matrix, compost, or cover methods such as nets, blankets, and plastic covering. Mulching provides immediate temporary protection from exposed soil. Mulching should be used:
 - During the wet season as a cover
 - Slopes steeper than 3H:1V
 - Areas that will not actively be worked for a period of time (14 or more consecutive days)
- **Stabilized Construction Entrance:** Reduce the amount of sediment transported from the job site to paved streets by a vehicle or equipment during 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.

Example ESC Measures:



ESC Inspection Process

At least three ESC inspections will take place during your project. The ESC inspections will be performed by City staff. The inspector(s) will verify proper installation and maintenance of the BMPs in place.

- **ESC Inspection 1: Prior to clearing and grading activities**
The applicant will coordinate with the City Inspector to meet on-site. The ESC Inspector will outline the Erosion and Sediment (ESC) measures and process.
- **ESC Inspection 2: During Construction**
The City Inspector will inspect the site after installation of the selected ESC BMPs to check that all BMPs are installed properly. No clearing or grading activities shall take place prior to an approval by the Inspector. The Inspector may monitor the BMPs in place during construction.
- **ESC Inspection 3: After Construction**
The applicant will coordinate with the City Inspector after completing the project. The Inspector will verify that any disturbed soils left on the site are stabilized prior to occupancy.

Additional information and standards regarding ESC are available in the 2019 Stormwater Management Manual for Western Washington, which has been adopted by the City.