



Engineering Standards

Chapter 2 Erosion and Sedimentation Control (ESC)

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ESC Notes, Forms and Worksheets

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2-01 Erosion and Sediment Control (ESC)

The Mount Vernon Municipal Code has adopted the 2012 Storm Water Management Manual for Western Washington, published by the Washington State Department of Ecology, Water Quality Program. Volume II of this manual regulates Construction Storm Water Pollution Prevention.

Volume II as amended herein will serve as the erosion control standard for the City of Mount Vernon.

Real world circumstances vary, and compliance with these guidelines does not guarantee results that meet water quality regulations. The City will require additional measures when necessary to ensure water quality compliance.

2-02 Property Owner Responsibilities

The property owner is responsible for the lawful discharge of water from his/her property.

2-03 Wet Season Special Provisions/Requirements

Any site with exposed soils during the wet season (October 1 to April 30) shall be subject to the Wet Season Special Provisions. See Department of Ecology Storm Water Manual for Western Washington Volume II.

2-04 Certified Erosion Control Lead (CESL)

Volume II Chapter 4 BMP C160 sets forth the requirements for a Certified Erosion Control Lead (CESL).

The construction plans and the Stormwater Pollution Prevention Plan (SWPPP) shall include the name and contact information of the designated CESL.

The contractor must designate a CESL to:

1. Be available for rapid response to ESC problems.
2. Ensure compliance with all Stormwater permit conditions.
3. Maintain and review each BMP.
4. Keep a copy of all required reports on site and forward a copy to the City Inspector within 48 hours of completion.

2-05 Final Stabilization

Prior to obtaining final construction approval, the site shall be stabilized, the structural ESC measures, such as silt fences and sediment traps removed, and drainage facilities cleaned. The removal of ESC measures is not required for those projects, such as plats, that will be followed by additional construction under a different permit. In these circumstances, the need for removing or retaining the measures must be evaluated on a site-specific basis.

To obtain final construction approval, the following conditions must be met:

1. All disturbed areas of the site shall be vegetated or otherwise permanently stabilized. At a minimum, disturbed areas shall be seeded and mulched with a high likelihood that sufficient cover will develop shortly after final approval. Mulch without seeding is not adequate to allow final approval of the permit, except for small areas of mulch used for landscaping.
2. Structural measures such as, but not limited to, silt fences, pipe slope drains, construction entrances, storm drain inlet protection, and sediment traps and temporary ponds shall be removed from the site. Measures that will quickly decompose, such as brush barriers and organic mulches, may be left in place. An applicant's proposal to remove fencing prior to the establishment of vegetation shall require inspection and approval from the City. In some cases, such as residential building following plat development, it may be appropriate to leave some or all ESC measures for use during subsequent development. This shall be determined on a site-specific basis.
3. All permanent surface water facilities, including catch basins, manholes, pipes, ditches, channels, R/D facilities, and water quality facilities, shall be cleaned. Any offsite catch basin that required protection during construction shall also be cleaned.
4. If only the infrastructure of the site has been developed (e.g. subdivisions) with building construction to occur under a different permit, then the Critical Area buffer and /or boundary shall be clearly marked.

2-06 NPDES Requirements

As part of the implementation of the National Pollutant Discharge Elimination System (NPDES), projects that will disturb one acre or more of total area and will discharge to a surfacewater body must receive coverage under the Washington State Department of Ecology's Construction Stormwater General Permit. The DOE Construction Stormwater General Permit application requires the filing of a Notice of Intent (NOI) at least 30 days prior to the start of construction. Contact the Department of Ecology for complete information on permit thresholds, applications, and requirements.

2-07 Standard ESC Plan Notes

The following notes must be shown on Civil plans approved by the City, as applicable to the project. Additional notes at the discretion of the Engineer of records may be included. For Wet Season notes also reference DOE Volume II.

ESC-1 Standard ESC NOTES

APPROVAL OF THIS EROSION AND SEDIMENT CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).

1. PRIOR TO COMMENCING CONSTRUCTION, ALL CRITICAL AREAS, INCLUDING WETLAND BUFFERS, STREAM BUFFER, LANDFILL AREAS, AND CONDITIONS AS DETERMINED BY THE CITY INSPECTOR SHALL BE CONTINUOUSLY DEMARCATED IN THE FIELD USING FLAGGING TAPE OR FENCING. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF MOUNT VERNON STANDARDS AND SPECIFICATIONS.
2. EROSION CONTROL METHODS AND MATERIALS SHALL MEET REQUIREMENTS OF THE APWA/WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION(CURRENT EDITION) AND REQUIREMENTS SET FORTH IN VOLUME II OF THE "STORMWATER MANAGEMENT MANUAL FOR THE PUGET SOUND BASIN (THE TECHNICAL MANUAL)", BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY, EDITION CURRENTLY ADOPTED BY THE CITY OF MOUNT VERNON. THE CONTRACTOR SHALL FOLLOW RECOMMENDATIONS MADE BY SUPPLIERS AND MANUFACTURERS OF MATERIALS AND EQUIPMENT USED.
3. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE INSTALLED AND IN OPERATION IN ADVANCE OF ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS. WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.
4. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS. ADDITIONALLY, MORE ESC FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION

CONTROL. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY CONSTRUCTION ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES OVER AND ABOVE THE MINIMUM REQUIREMENTS AS MAY BE NEEDED.

5. ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY.
6. A COPY OF THE APPROVED EROSION CONTROL PLANS MUST BE KEPT ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
7. A CLEARING CONTROL FENCE SHALL BE INSTALLED AT THE DRIP LINE OF TREES TO BE SAVED WHEREVER THE TREE CANOPIES EXTEND INTO THE AREA TO BE CLEARED.
8. OFF-SITE STREETS MUST BE KEPT CLEAN AT ALL TIMES. IF DIRT IS DEPOSITED ON THE PUBLIC STREET SYSTEM, THE STREET SHALL BE IMMEDIATELY CLEANED WITH POWER SWEEPER OR OTHER APPROVED EQUIPMENT. ALL ADJACENT OFF-SITE PROPERTIES AND DRAINAGE FACILITIES SHALL BE PROTECTED FROM DAMAGE. ALL VEHICLES SHALL LEAVE THE SITE BY WAY OF THE CONSTRUCTION ENTRANCE AND SHALL BE CLEANED OF ALL DIRT THAT WOULD BE DEPOSITED ON THE PUBLIC STREETS.
9. ALL PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND RUNOFF. DO NOT FLUSH SEDIMENT OR CONCRETE BY-PRODUCTS OR CLEAN TRUCKS NEAR OR INTO THE STORM DRAINAGE OR SEWER SYSTEMS.
10. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE OWNER/APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
11. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS.
12. ANY AREA NEEDING ESC MEASURES NOT REQUIRING IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN FIFTEEN (15) CALENDAR DAYS.

13. THE ESC FACILITIES ON ACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH AND WITHIN FORTY-EIGHT (48) HOURS FOLLOWING A STORM EVENT.
14. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT -LADEN WATER INTO THE DOWNSTREAM SYSTEM.
15. STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL OFF-SITE PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
16. PRIOR TO THE BEGINNING OF THE WET SEASON THE CONTRACTOR SHALL DETERMINE BMP MEASURES. ALL DISTURBED AREAS SHALL BE INSPECTED BY THE CONTRACTOR TO IDENTIFY WHICH AREAS SHALL BE STABILIZED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE STABILIZED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON.

ESC-2 CONSTRUCTION SEQUENCE

Construction Sequence is required for all applicable projects.