

SECTION 3
MINIMUM REQUIREMENT #2
CONSTRUCTION STORMWATER POLLUTION
PREVENTION (SWPPP)

A Stormwater Pollution Prevention Plan (SWPPP) is required to address 12 specific pollution prevention elements per SCC 30.63A. These elements are listed and summarily addressed below, the full SWPPP is included as appendix 3-A and is included in this report, but bound separately for convenience in the field:

1. Mark Clearing Limits

Clearing limits will be flagged or fenced by the contractor or project surveyor prior to commencement of construction activity.

2. Establish Construction Access

A stabilized rock construction entrance will be installed at the entrance to the plat at the onset of construction.

3. Detain Flows

Prior to significant clearing, a permanent detention facility shall be constructed, so that it can be used for temporary sediment control. A temporary sediment riser shall be installed in order to ensure proper sediment control. Once the facility is constructed, the site shall be cleared and graded, and all surface water controls shall direct runoff to this facility. When final grading is complete and the site is stabilized, the temporary sediment riser shall be replaced with a permanent flow control structure.

4. Install Sediment Controls

Filter fabric fencing (silt fence) shall be installed around the downstream perimeter of the site in order to keep sediment-laden stormwater from leaving the site. The fencing shall be inspected periodically to ensure its continued effectiveness.

5. Stabilize Soils

Exposed soils shall be stabilized through mulching or hydroseeding when the not actively worked for a significant period of time. Permanent vegetation shall be established through hydroseeding once the site has reached final grade.

6. Protect Slopes

The project calls for the installation of rockeries and retaining walls. The faces of these walls shall be protected until the facing stones or rocks are installed. No other significant slopes are proposed.

7. Protect Drain Inlets

The temporary erosion and sediment control plan calls for a filter fabric sock to be installed at all nearby catch basin inlets. Filter fabric protection shall be placed in all new catch basins as they are installed.

8. Stabilize Channels and Outlets

All temporary interceptor swales shall contain check dams whenever a drop of 2 vertical feet occurs. Water discharged from the sedimentation facility shall outfall onto a rip-rap splash pad or level spreader.

9. Control Pollutants

All waste materials shall be disposed of in an approved location, in accordance with City of Monroe Standards. In order to reasonably prevent a contamination event (such as a fuel spill), all major vehicle maintenance shall occur off-site to the greatest extent practicable. The contractor shall provide a vehicle staging area near the entrance to the site where all fueling and maintenance activity is likely to take place. This is intended to contain the area in which a contamination event is likely to take place. The contractor shall immediately contain and clean-up an area in which a contamination event occurs.

10. Control De-Watering

No significant dewatering is expected to occur during this project.

11. Maintain BMPs

All BMPs should be monitored and maintained regularly to ensure adequate operation. A TESC supervisor shall be identified at the beginning of the project to provide monitoring and direct the appropriate maintenance activity. As site conditions change, all BMPs shall be updated as necessary to maintain compliance with City standards.

12. Manage the Project

The project will begin with a pre-construction conference in which an on-site TESC supervisor shall be identified. The on-site supervisor shall monitor all TESC facilities regularly and maintain a log of inspections and improvements to demonstrate compliance with City standards. The project erosion control should be phased if the weather forecast is not solid. Thus the site is cleared, stabilized with TESC measures, and the moved on to the next phase. It will be important that the entire site is in conformance with City of Monroe erosion control standards at all times. The TESC supervisor shall notify Site Development Associates of any problems with the proposed erosion control elements, or if any revisions to the plan need to be made. Additional erosion control materials, such as filter fabric fencing, cover plastic, and straw bales, shall be kept on-site at all times in the event that an erosion control feature needs to be replaced or installed.

CSWPPP ANALYSIS & DESIGN

This section of the report, along with the Temporary Erosion and Sediment Control (TESC) Plan included in the engineering drawings, is intended to serve as the construction Stormwater Pollution Prevention Plan (SWPPP) for the project. The SWPPP is outlined in conformance with the 2005 edition of the Washington State Department of Ecology's Stormwater Management Manual for Western Washington (DOE Manual).

STEPS 1&2 – DATA COLLECTION & ANALYSIS

The topography of the site has been described previously in this report as being moderately sloping. The topography of the site is shown in the engineering plan set.

Soils on the project site have been identified previously in this report as being moderate to dense till, which can generally be expected to have moderate to high runoff rates with little capacity for infiltration. The existing ground cover at the project site consists mainly of forested area near the northern boundary, and pasture grass on the remainder of the site.

STEP 3 – CONSTRUCTION SWPPP DEVELOPMENT AND IMPLEMENTATION

The development and implementation of this SWPPP shall consist of 12 specific elements, as outlined in the DOE Manual. They are:

1. *Mark Clearing Limits*

Clearing limits will be flagged or fenced by the contractor or project surveyor prior to commencement of construction activity.

2. *Establish Construction Access*

A stabilized rock construction entrance will be installed at the entrance to the plat at the onset of construction.

3. *Detain Flows*

Prior to significant clearing, the permanent detention facility shall be constructed, so that it can be used for temporary sediment control. A temporary sediment riser shall be installed in order to ensure proper sediment control. Once the facility is constructed, the site shall be cleared and graded, and all surface water controls shall direct runoff to this facility. When final grading is complete and the site is stabilized, the temporary sediment riser shall be replaced with a permanent flow control structure.

4. *Install Sediment Controls*

Filter fabric fencing (silt fence) shall be installed around the downstream perimeter of the site in order to keep sediment-laden stormwater from leaving the site. The fencing shall be inspected periodically to ensure its continued effectiveness.

5. *Stabilize Soils*

The temporary erosion and sediment control plan calls for the stabilization of exposed soils through mulching or hydroseeding when the soils are not to be worked for a significant period of time. The plan also calls for the establishment of permanent vegetation through hydroseeding once the site has reached final grade.

6. *Protect Slopes*

The northern edge of the project site shall be seeded and stabilized immediately upon reaching finished grade. Any proposed stepped lots shall also be stabilized immediately to prevent sloughing or erosion of the step slope. Any proposed rockeries or mechanically stabilized earthen walls shall have facing stones or blocks installed simultaneous to the construction of the earthen face, to provide erosion protection to the wall face.

7. *Protect Drain Inlets*

The temporary erosion and sediment control plan calls for a filter fabric sock to be installed at all nearby catch basin inlets. Filter fabric protection shall be placed in all new catch basins as they are installed.

8. *Stabilize Channels and Outlets*

All temporary interceptor swales shall contain check dams whenever a drop of 2 vertical feet occurs. Water discharged from the sedimentation facility shall outfall onto a rip-rap splash pad.

9. *Control Pollutants*

All waste materials shall be disposed of in an approved location, in accordance with City of Monroe standards. In order to reasonably prevent a contamination event (such as a fuel spill), all major vehicle maintenance shall occur off-site to the greatest extent practicable. The contractor shall provide a vehicle staging area near the entrance to the site where all fueling and maintenance activity is likely to take place. This is intended to contain the area in which a contamination event is likely to take place. The contractor shall immediately contain and clean-up an area in which a contamination event occurs.

10. *Control Dewatering*

No significant dewatering is expected to occur during this project.

11. *Maintain BMPs*

All BMPs should be monitored and maintained regularly to ensure adequate operation. A TESC supervisor shall be identified at the beginning of the project to provide monitoring and direct the appropriate maintenance activity. As site conditions change, all BMPs shall be updated as necessary to maintain compliance with City standards.

12. *Manage the Project*

The project will begin with a pre-construction conference in which an on-site TESC supervisor shall be identified. The on-site supervisor shall monitor all TESC facilities regularly and maintain a log of inspections and improvements to demonstrate compliance with City standards. The project is not large enough to be effectively phased, therefore, it will be important that the entire site is in conformance with City of Monroe erosion control standards at all times. The TESC supervisor shall notify Site Development Associates of any problems with the proposed erosion control elements, or if any revisions to the plan need to be made. Additional erosion control materials, such as filter fabric fencing, cover plastic, and straw bales, shall be kept on-site at all times in the event that an erosion control feature needs to be replaced or installed.