

Wenatchee Valley Stormwater Management Program

# **Construction Site Stormwater Runoff Control**

---

## **Appendix D**

### **Chelan County Construction Site Stormwater Runoff Control Implementation**

# Construction Site Stormwater Runoff Control

---

## **Introduction:**

The Construction Site Stormwater Runoff Control Program is required under S5(B)(4) of the Eastern Washington Phase II Municipal Stormwater Permit for both public and private construction projects. Runoff from new and re-development projects can contribute to the discharge of sediment to the stormwater system sufficient to result in water quality violations in receiving waters. Controlling erosion and preventing sediment and other pollutants from leaving the project site is achieved through implementation of appropriate Best Management Practices (BMPs). When proper BMPs are planned, installed, and properly maintained during and after construction, contamination of the stormwater system can be minimized. The key elements of this program include reviewing project plans, inspecting construction sites, providing education and outreach, and enforcing the ordinance/resolution to prevent illicit discharges to the MS4.

## **Objective:**

The objective is to implement a program which addresses construction site runoff that is compliant with Federal and State stormwater regulations. The goal is to reduce pollutants in stormwater runoff associated with construction activities that disturb one acre or more, and from construction projects of less than one acre that are part of a common plan of development or sale through the implementation of proper project review, inspection, education, and enforcement.

## **I. Local Regulation**

Each jurisdiction adopted an ordinance or resolution effective February 16, 2011 requiring erosion and sediment control BMPs for new development and redevelopment projects, as well as requirements for construction site operators to control waste that may adversely impact water quality such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste. The local regulations apply at a minimum to construction sites disturbing greater than or equal to one acre and to construction projects of less than one acre that are part of a common plan of development or sale and shall include sanctions to ensure compliance. To reduce the discharge of pollutants to the maximum extent practicable and satisfy the state AKART requirements, the Wenatchee Valley adopted the Stormwater Management Manual for Eastern Washington, 2004 or latest edition thereof including additional local requirements by jurisdiction and revisions by the Washington State Department of Ecology. This manual is cited as the reference for BMP selection, design, installation, and operation and maintenance standards. For more information on the jurisdiction-specific requirements please refer to the following local codes:

- Chelan County Code Chapter 13.18 (Resolution No. 2010-19)
- Douglas County Code Chapter 20.36 (Ordinance No. TLS 10-02-03B)
- East Wenatchee City Code Chapter 13.30 (Ordinance No. 2010-05)
- Wenatchee City Code Chapter 12.10 (Ordinance 2010-01).

## **II. Construction Site Stormwater Runoff Control Program Elements**

### **A. Submittal Requirements**

Construction Stormwater Pollution Prevention Plans (SWPPPs) shall be required for, at a minimum, regulated construction sites that disturb one acre or more or are less than one acre and are part of a common plan of development or sale.

## Construction Site Stormwater Runoff Control

---

The goal of a Construction Stormwater Pollution Prevention Plan (SWPPP) is to avoid immediate and long-term environmental loss and degradation typically caused by poorly managed construction sites. Prompt implementation of a Construction SWPPP, can provide a number of benefits. These include minimizing construction delays, reducing resources spent on repairing erosion, improving the relationship between the contractor and the permitting authority, and limiting adverse effects on the environment. A Construction Stormwater Pollution Prevention Plan typically contains two components. The first component is a Temporary Erosion and Sediment Control Plan. The second component is a narrative report which explains and illustrates the measure to be taken to control construction site runoff. A well-written SWPPP provides guidance that is neither over- nor under- protective for the project site. The Construction SWPPP should include seasonally-appropriate guidance and anticipate adjustments that may be necessary in the event of delays in the construction schedule.

### **B. Stormwater Pollution Prevention Plan Review**

Qualified personnel shall review Construction Stormwater Pollution Prevention Plans (SWPPPs) for, at a minimum, all construction sites that disturb one acre or more or are less than one acre and are part of a common plan of development or sale. Jurisdictions shall combine review of pre-construction and post-construction controls to streamline review time and conserve resources.

To ensure the jurisdiction and the contractor understand the SWPPP and associated requirements, a pre-construction site plan meeting with the construction operator may be required prior to construction.

Jurisdictions shall accept Stormwater Pollution Prevention Plans. Acceptance of submitted SWPPPs shall not be deemed as approval. As site work progresses, the plan shall be modified to reflect changing site conditions. The owner has ultimate responsibility for preparation, submission and maintenance of the plan. The owner may designate responsibility for preparation and implementation of the plan to others but shall retain ultimate responsibility.

Acceptance of the SWPPP shall not relieve the owner from requirements to prevent sediment or sediment laden water from leaving the site. Additional practices shall be implemented as necessary, or as directed by the jurisdiction, in order to address erosion and sedimentation in accordance with local, state and federal requirements.

### **C. Record Keeping**

Each jurisdiction has implemented procedures to maintain records of all projects which disturb more than one acre, and all projects of any size that are part of a common plan of development or sale that is greater than one acre beginning with projects approved after February 16, 2007. Records shall be retained for five years or until construction is completed, whichever is longer. Records of projects after February 16, 2011 shall include:

- Project Identification
- Property Owner including contact information
- Contractor, including contact information
- Project location: Section, Township Range, Lat/Long, Site Address
- SWPPP and updates
- Date Construction Begins
- Inspection Records
- Date Construction Completed

## Construction Site Stormwater Runoff Control

---

### **D. Staff Training**

Training shall be provided to municipal staff involved in permitting, planning, plan and review, field inspection and enforcement to carryout the provisions of the Construction Site Stormwater Runoff Control Program elements, including office and field staff.

Training may be developed in house or offered by another organization and the local jurisdictions will coordinate training for erosion and sediment control with post- construction stormwater management training to ensure efficient use of resources whenever possible.

Municipal training records shall include:

- Names and Positions of staff in attendance.
- Dates
- Activities or Course Descriptions

### **E. Site Inspection and Enforcement**

Site inspections shall be conducted by qualified staff that have been trained to perform inspections of erosion and sediment control best management practices. Inspectors conducting construction-phase stormwater inspections should be a current Certified Erosion and Sediment Control Lead (CESCLs). At a minimum, jurisdictions shall achieve an inspection rate of at least 80% of all sites.

Based on the local code, escalating enforcement actions will be taken for incidents of noncompliance. Education, whenever feasible, will always be the first option.

Each jurisdiction shall adopt a procedure for keeping records of inspections and enforcement actions. Refer to the appendices for the specific procedures and strategies for Chelan County.

### **F. Public Education**

Target audiences for Construction Site Stormwater Runoff Control education will be the development community, including engineers, designers, specialty contractors, excavation contractors, utility installers and builders. Education materials will be developed and distributed:

- i. Information will be available at public offices and at events including home shows and public meetings.
- ii. Information will be provided to developers, contractors and builders, during pre-application and pre-construction meetings associated with new and re-development projects.
- iii. Information shall be provided to construction site operators about training available on how to install and maintain effective erosion and sediment controls and how to comply with the requirements of Appendix 1 of the Municipal Stormwater Permit and application of the Best Management Practice described in Chapter 7 of the Stormwater Management Manual for Eastern Washington.
- iv. Information may be provided as a handout during the pre-application and pre-construction meeting. (Example: Refer Designers and Construction Site Operators to the Department of Ecology web-site of approved CESCL training programs.)

# Construction Site Stormwater Runoff Control

---

Records of information shall include:

- Copies of information provided to construction site operators.
- Copies of information distributed to large numbers of design professionals, including the date of the mailing and the recipient list.

## **Appendix:**

- Appendix A Chelan County Implementation Plan
- Appendix B Construction & Post-Construction Project Review Checklist
- Appendix C Training Sign-in Sheet Template
- Appendix D Construction Stormwater Site Inspection Forms
- Appendix E Construction Illicit Discharge Report Form

Wenatchee Valley Stormwater Management Program

# **Construction Site Stormwater Runoff Control**

---

Wenatchee Valley Stormwater Management Program

# **Construction Site Stormwater Runoff Control**

---

## **Appendix A**

### **Chelan County Construction Site Stormwater Runoff Control Implementation**

# Construction Site Stormwater Runoff Control

---

## Chelan County Implementation Plan

Construction site stormwater runoff will be managed through plan reviews, site inspections, staff training, and enforcement of Chelan County Code (CCC) chapter 13.16 and in compliance with the Eastern Washington Phase II Permit. This program will cover all land-disturbing activities, new subdivisions, and redevelopment projects disturbing greater than or equal to one acre and to projects less than one acre that are part of a common plan of development or sale where the disturbed area of the entire plan is greater than or equal to one acre. CCC chapter 13.16 became effective in February 2011.

### **I. Review of Construction Stormwater Plans**

The county's Public Works Department under the supervision of the County Engineer will review Construction Stormwater Pollution Prevention Plans (SWPPP) for projects meeting the criteria set forth in the CCC chapter 13.16, in conjunction with the review of Stormwater Site Plans as identified in the Post-Construction Stormwater Management for New Development and Redevelopment Program. The Construction and Post-Construction Stormwater Project Review Checklist found in Appendix A will be used to verify that plans have met the minimum requirements. A spreadsheet is generated in order to manage project development within the County.

### **II. Construction Stormwater Recordkeeping**

Construction stormwater records including plans, checklists, inspection reports, enforcement actions and other documents identified in the Construction Site Stormwater Runoff Control Program will be maintained in the construction stormwater files by project. These project files are kept with the Public Works Department.

After construction, information pertinent to on-going operation, maintenance and inspection of post-construction stormwater facilities will be retained in the file. The file will then be used to track post-construction requirements. Records of complaints and/or illicit discharges from construction sites will be documented and copies of the investigations and enforcement will be included in both the annual IDDE file and the construction stormwater project file. [Sign in sheet Appendix B?](#)

### **III. Construction Stormwater Training**

Construction stormwater training will be provided to county staff in applicable departments. Additionally, illicit discharge detection training will be provided to office staff and the Public Works maintenance crew. Training records will be maintained by the Stormwater Program Manager and/or Environmental Manager, including a sign-in sheet with names and titles and a description of the training. Construction site stormwater inspections will be conducted by county employees, who are current Certified Erosion and Sediment Control Specialists (CESCLs).

### **IV. Construction Stormwater Site Inspections**

At a minimum, 80% of all new construction sites where one acre or more is disturbed and construction projects less than one acre that are part of a common plan of development or sale will be inspected during construction to insure compliance with CCC chapter 13.18. Inspections will be conducted by a CESCL employed by the



## Construction Site Stormwater Runoff Control

---

County. Refer to the Construction Site Stormwater Inspection Form in **Appendix C** of this chapter.

The inspector upon entering a site will first attempt to contact the onsite construction foreman or other person responsible for the project. In addition, to the inspection form, the county may also use photographs to document compliance or no-compliance. Non-compliance issues will be reviewed with an onsite representative if possible. A follow-up letter will be sent to the person responsible for the SWPPP implementation. Inspection records will be filed in the project file. Non-compliance issues will be addressed in accordance with Section VI.

### **V. Illicit Discharge Investigations and Enforcements**

Documenting an incident of illicit discharge from a construction site begins at the time the report is acknowledged and continues throughout the investigation, clean-up, and enforcement of the incident. When the incident is documented, it will be designated as being related to a construction project and staff will be notified by email.

Documentation of the field investigation will at a minimum include written documentation, but also may include photographs of the illicit discharge and any infrastructure or water bodies associated with the discharge. Sample collection for laboratory analysis may also occur at this time. If sampling is necessary they need to be pulled and analyzed within an appropriate timeframe to assure the data is valid. Chain of Custody forms need to be completed for all samples.

Investigation of construction-related complaints will be carried out in the same manner and timeframe as other stormwater complaints. Refer to the Construction Stormwater Complaint form in **Appendix D**. Response and enforcement procedures can be found in Chelan County's IDDE Response Procedures. The same enforcement process will be used for illicit discharges and non-compliance with SWPPPs. Documentation of investigations and enforcement action will be included in the annual IDDE file and the construction stormwater file for the specific project.

Wenatchee Valley Stormwater Management Program  
**Construction Site Stormwater Runoff Control**

---

**Appendix B**  
**Construction & Post-Construction Project**  
**Review Checklist**

# Construction Site Stormwater Runoff Control

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

**Reviewer:** \_\_\_\_\_

**Date:** \_\_\_\_\_

<b>Stormwater Pollution Prevention Plan (SWPPP)</b>		Yes	No	N/A
<b>I. Introduction</b>				
	Project Name			
	Brief Description of Site & Project			
	SWPPP Purpose & Objectives			
	Overview of SWPPP Organization			
<b>II. Site Description</b>				
Existing	Location & Size			
	Drainage Conditions			
	Critical Areas			
	Overview of SWPPP Organization			
Proposed	Site Development			
	Construction Activities			
	Site Drainage			
	Final Site Stabilization			
<b>III. Construction Stormwater BMPs</b>				
	1. Mark Clearing Limits			
	2. Establish Construction Access			
	3. Control Flow Rates			
	4. Install Sediment Controls			
	5. Stabilize Soils			
	6. Protect Slopes			
	7. Protect Drain Inlets			
	8. Stabilize Channels and Outlets			
	9. Control Pollutants			
	10. Control Dewatering			
	11. Maintain BMPs			
	12. Manage the Project			
	Site Specific BMPs			
	Additional Advanced BMPs			

# Construction Site Stormwater Runoff Control

<b>IV. Construction Phasing &amp; BMP Implementation</b>			
Phasing of Construction			
Seasonal Work Limitations			
Coordination with Other Utilities & Other Contractors			
Inspection & Monitoring of BMPs			
SWPPP Maintenance			
Construction/BMP Implementation Schedule			
<b>V. Pollution Prevention Team</b>			
Roles & Responsibilities			
Team Members			
<b>VI. Site Inspections &amp; Monitoring</b>			
Site Inspection Frequency & Documentation			
Stormwater Quality Monitoring			
<b>VII. Reporting &amp; Recordkeeping</b>			
Site Log Book			
Records Retention			
Access to Plans & Records			
Reporting Requirements			
<b>VIII. Site Plan</b>			
Vicinity Map with Discharge Points			
Map with Sediment & Erosion Control BMPs			
<b>IX. Additional Information</b>			
BMP List			
Site Log & Inspection Form			
Engineering Calculations			

<b>Post-Construction Stormwater Control Plans</b>	Yes	No	N/A
Drainage Report			
Construction Plans			
Operations & Maintenance Plan			

Wenatchee Valley Stormwater Management Program  
**Construction Site Stormwater Runoff Control**

---

**Appendix D**  
**Construction Stormwater Site Inspection Form**

# Construction Site Stormwater Runoff Control

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

**Date/Time:** \_\_\_\_\_

**Inspector:** \_\_\_\_\_

**Project**

**Contact:** \_\_\_\_\_

**Project Phase:** \_\_\_\_\_

(Clearing & Grubbing, Rough Grading, Finish Grading, Building Construction, Final Stabilization)

Inspection Checklist	Yes	No	N/A
Have all denuded areas requiring temporary or permanent stabilization been stabilized?			
Seeded?			
Mulched?			
Graveled?			
Are soil stock piles stabilized with seeding and/or other BMPs?			
Have BMPs been installed as planned?			
Are finished cut and fill slopes Stabilized?			
Are on-site channels and outlets stabilized?			
Are all operational stormwater inlets protected?			
Are stormwater conveyance channels stabilized?			
Is in-stream construction conducted using measures to minimize channel damage?			
Are temporary stream crossings of non-erodible material installed?			
Is necessary restabilization of in-stream construction complete?			
Are utility trenches stabilized?			
Are the public roadways clear of sediment at intersections with site access roads?			
Have temporary stormwater BMPs been maintained? (Check SWPPP)			
Have all temporary control structures that are no longer needed been removed?			
Has landscaping and final stabilization BMPs been completed?			

Wenatchee Valley Stormwater Management Program

# **Construction Site Stormwater Runoff Control**

---

## **Appendix E**

### **Construction Illicit Discharge Report Form**

# Construction Site Stormwater Runoff Control

---

## **I. Incident Report**

Date/Time: \_\_\_\_\_ AM / PM      Received By: \_\_\_\_\_

Location: \_\_\_\_\_

Initial Report of Conditions: \_\_\_\_\_

Reported By: \_\_\_\_\_      Phone: \_\_\_\_\_

## **II. Investigation**

Date: \_\_\_\_\_      By: \_\_\_\_\_

Storm Drain ID/Outfall: \_\_\_\_\_

Entered Storm Drain System/Receiving Waters? \_\_\_ Yes \_\_\_ No

### Material Type

- Hazardous
- Sediment
- Wastewater
- Oil/Grease
- Other \_\_\_\_\_
- Unknown

Est. Quantity: \_\_\_\_\_

Additional Information: \_\_\_\_\_

Sample(s) Collected \_\_\_ Yes \_\_\_ No

### BMPS

Installed \_\_\_ Yes \_\_\_ No      Description: \_\_\_\_\_

Maintained \_\_\_ Yes \_\_\_ No      Description: \_\_\_\_\_

Site Contact: \_\_\_\_\_      Phone: \_\_\_\_\_

Construction Stormwater Permit \_\_\_ Yes \_\_\_ No

## **III. Action and Closure**

Referred To: \_\_\_\_\_      Date: \_\_\_\_\_

Action Taken: \_\_\_\_\_

Date Closed: \_\_\_\_\_