

ESC Training: Construction

1200-CA Permit update first since 2003



REs, & Inspectors and ESCMs need to read the Permit

1200-CA Permit update will require changes to Erosion and Sediment Control Plan implementation and compliance with permit requirements during construction



This training addresses required processes for ESCP during construction

The 1200-CA permit regulates discharges of stormwater from construction sites where 1 acre of ground is disturbed, or phased projects, where the combined disturbance is 1 acre or more

Also regulated are construction projects less than 1 acre adjacent to waterways or that may discharge stormwater that may contain pollutants to waters of the state.

First 1200-CA Update Since 2003

- Changes to the Permit will affect ESCP during Construction with more and different tasks
- Suite of 5 Permit documents include:
- 1200-CA Permit Final
- Permit Evaluation Report (PER) an interpretation and guidance document for DEQ inspectors
- Appendix A Provides direction on Environmental Management Plan (EMP)
- Appendix B Provides direction on Buffer Zones
- DEQ response to comments from permittees

Permit Documents are located in the ODOT Erosion & Sediment Control web page under Guidance Materials

Permit Update Timeline

Permit Section 16 – Corrective Actions are now in effect. This is of critical importance to DEQ



Staging Areas

Contractors using staging Areas that are NOT on ODOT controlled lands must acquire individual 1200-C permit as noted in 00280.05. Notify DEQ of Staging Area Location

Requirement has not changed from current practice. Individual 1200-C Permit is similarly strict as the updated 1200-CA

DEQ requires submittal Erosion & Sediment Control Plan (ESCP) prior to construction.

Contractor must revise ESCP prior to beginning construction with personnel information



Redefine ESCP

Erosion and Sediment Control Plan is not just the plan sheets, but a folder of information including:

- ESC Plan Sheets
- Erosion and Sediment Control narrative
- 00280 Specifications AND Special Provisions
- 00290 Specifications AND Special Provisions
- 01030 Special Provisions
- Monitoring reports
- ESCP revisions
- Corrective Action submittals

DEQ requires ESCP to provide an understanding of all aspects of Project that affects erosion & sediment control and pollution prevention

Contractor Must Revise ESCP Prior to Beginning Construction to Provide the following:

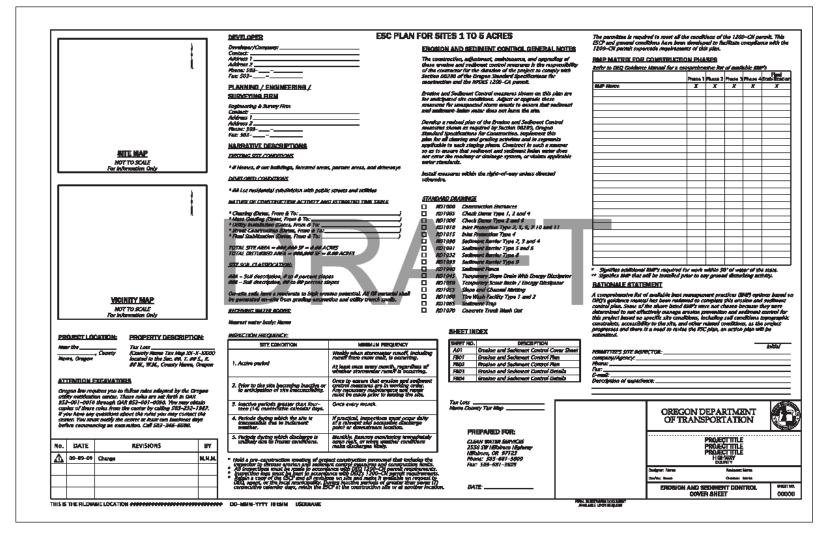
- Contractors working on Project site,
- Personnel's name & position for all staff designing, installing & maintaining ESC BMPs during construction,
- Staging area, stockpile area, materials processing area with appropriate ESC BMPs
- Personnel conducting monitoring (ESCM) including name, title, contact information & certification information
- EMP if applicable
- Have CURRENT copy of ESCP on site. Electronic file is OK

ODOT is Permit Registrant & Responsible for Permit Compliance

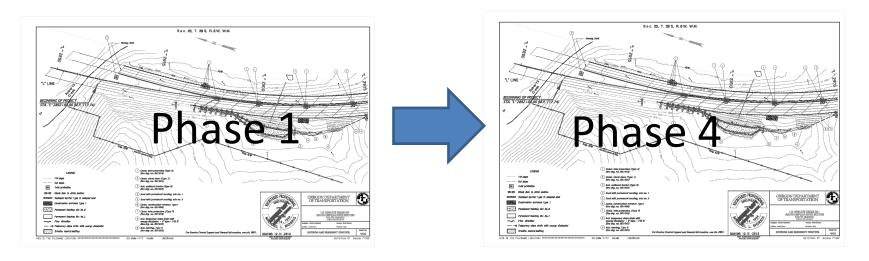
"...must implement erosion and sediment control measures at all times to prevent any turbid discharges or sediment from leaving the project site from initial soil disturbance until project completion."

(and as supported by Sections 0280.40 & 00280.41)

New condition of Permit is the ESCP Cover Sheet This must be edited by the contractor with staff and schedule prior to beginning work



New conditions of Permit are separate sheets for each phase of construction



Verify BMPs shown on phased ESCP are installed and adequate and appropriate for actual site conditions to provide effective functioning

Contractor Developed or Modified ESCPs (00280.04)

All Erosion and Sediment Control Plans, regardless or origin must be developed in accordance with appropriate, recognized and generally accepted engineering and professional practices.

ESCPs must satisfy Permit requirements regarding qualifications for designers as well as the effective function of the design

SEDIMENT TRAPS

Where Contractor modified ESCP includes a Sediment Trap, the feature must be designed, stamped and signed by a qualified professional and be designed for a 2 year/24 hour storm for its watershed or provide 3600 Cu Ft storage

SEDIMENT TRAPS

IF Sediment Trap is provided in location where post-construction water quality basin is proposed, the sediment trap must have 18" of sediment and soil removed AND replaced with material capable of infiltration prior to use. Water Quality facility must satisfy stormwater management requirements

Permit Non-Compliances (Evidence of Erosion)

- Stabilization (erosion prevention) shown on ESCP not initiated or completed
- Earth slides or mud flows
- Rills, gullies or channels that are not protected and not treated to remove sediment
- Stormwater discharge is visibly turbid
- Visible plume of turbidity in receiving waters

Permit Non-Compliances (Sedimentation)

- Discharge of visually turbid water (> 10 NTU)
- Sediment leaving the project site
- Track out of mud or sediment from work area,
- Saturated soils leaking from trucks,
- Fugitive dust (Trucks leaving project site must cover loads)
- Discharge that results in exceedance of water quality standards
- Visible plume of turbidity in receiving waters
- Flushing sediment into ditch or drain inlet

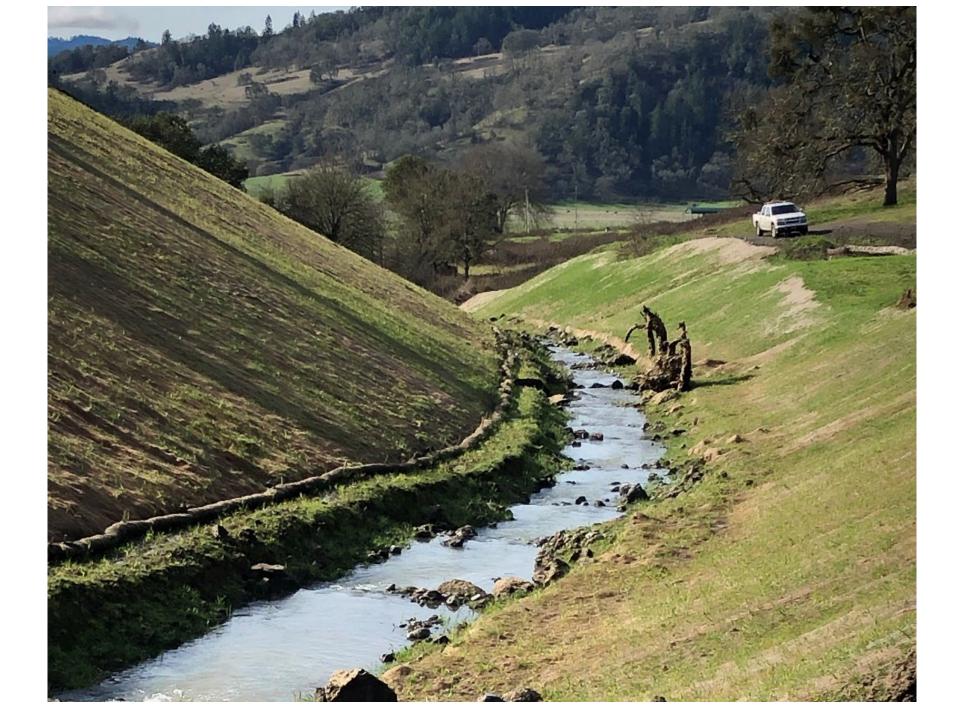
Permit Non-Compliances

- Monitoring not conducted per requirements
- Monitoring reports not accurate or timely
- Prohibited discharges not self-reported
- Corrective action reports not accurate or timely
- ESCP Not updated (& submitted) to reflect changes on the ground

DEQ depends of submittals to monitor project compliance – Without submittals, compliance is suspect

Penalties

- ORS 468.140 allows DEQ to penalize violations of permit requirements up to \$10,000 per day.
- Water pollution resulting from criminal negligence is punishable up to \$25,000 and one year imprisonment. (each day of violation is a separate punishable offense) (ORS 468.943)
- Knowingly discharging waste into waters of the state is punishable up to \$200,000 and 10 years in prison. (ORS 468.946)



Concrete – Strong Emphasis

- Concrete wash only in designated washout areas,
- Locate washout areas away from water, wetlands, ditches or inlets,
- All concrete wash water goes into durable, leakproof, appropriately sized basin,
- Concrete wash may not adversely affect groundwater,
- Handle concrete wash as waste. 00290.30(a)(4)

"Engineered" Soils

- Subgrade soils stabilized with cementitious material are "engineered soils"
- Where the possibility of runoff exists, from engineered soils, runoff must be captured in correctly sized sediment trap.
- Runoff from engineered soils, captured in sediment trap, must be tested for high pH.
- High pH water must have alkalinity neutralized prior to discharge
- Neutralizing treatments must be approved by DEQ prior to use

Monitoring Water in Sediment Traps for pH at Engineered Soils

- When first exposed to precipitation & every 7 days and within 24 hours of storm resulting in runoff
- Document dates of cementitious amendment placement and of final stabilization
- Monitor Basin, discharge water and at receiving waters for pH.
- Discharge must not exceed receiving water's maximum allowed pH standard units
- Immediately stop polluting discharge or neutralize stormwater alkalinity prior to discharge.

Prohibited Discharges include source pollutant or stormwater runoff containing:

- Concrete mold release, concrete prep or concrete finish materials,
- Fuels, oils or other pollutants associated with vehicles or equipment,
- Soaps, solvents or detergents in wash water,
- Wheel wash waste water,
- Hydro-demolition water and saw cut slurry,
- Toxics or hazardous substances from a spill or other release.

Your DEQ Online (YDO)

All Submittals to DEQ Must Be Sent Through the Electronic YDO Portal, including:

- Erosion & Sediment Control Plans (ESCP)
- Environmental Management Plans (EMP)
- Monitoring Reports
- ESCP Updates
- Corrective Action Reports
- Payments

Selected ODOT Staff are YDO "Responsible Officials" with signing authority. ESCMs and others may be delegated YDO Project access as "Consultants", for submittal preparation but do not have signing or submittal authority.

Your DEQ Online (YDO)

YDO Electronic Portal is software that is new to most users. More information is available through DEQ:

<u>Department of Environmental Quality:</u>
<u>Modernization Project Underway: Your DEQ Online:</u>
<u>Online Services: State of Oregon</u>

The software will require training and familiarization.

Signup for YDO through the DEQ web page requires submission of personal information. Analog signup, through the mail does not require personal information.

ESCM Must Update ESCP Within 7 Days of:

- Changes in Construction Plans that impact ESC,
- Changes in BMPs including type, design, locations or additions,
- Expansion of Construction area.
- Changes resulting from Corrective Actions.
- Changes required by DEQ or Agency,
- Changes of contractors or ESC subcontractors
- Changes in personnel involved in any aspect of ESC,
- Change of ESCM

ESCM provides ESCP updates to Agency for submittal to DEO

Revise BMPs and ESCP to Reflect Current Site Conditions



Revise ESCP To Keep it Representative of Current Site Conditions, Including:

- When construction plans change,
- When ESC BMP are changed,
- When corrective actions require change,
- When DEQ or ODOT request changes,
- If contractor, ESCM or key ESC personnel change,
- If federal, state, tribal or local ESC requirements change,
- If chemical treatment systems change.

ESCM provides ESCP updates to Agency W/in 7 days of change, for submittal to DEQ

ESCP REVISIONS

Revisions to ESCP will likely be the largest task added to the work of ESCMs



Submission of ESCP Updates to DEQ:

- Within 30 days of the revision,
- For reasons described in previous slides.
- Submit portion of ESCP that is revised

Registrant must keep record of all ESCP revisions and a summary of all changes, (electronic file is OK)

Provide name of person authorizing changes.

Addition of active chemical treatment system requires submission and must get DEQ approval prior to operating.

ESCM Duties Include:

- Read 1200-CA Permit & keep site permit compliant
- Monitor site as follows:
 - On initial date
 - Every 14 days
 - Within 24 hours of storm events that results in stormwater runoff
 - Within 24 hours of snow melt that results in runoff
- Monitor receiving waters
- Mobilize crews to provide corrective actions
- Fill out monitoring report and submit to Agency (ORS-012-0055: Failing to collect monitoring data required in Schedule B of the permit is a Class 1 [most severe] penalty)

Penalties

- ORS 468.140 allows DEQ to penalize violations of permit requirements up to \$10,000 per day.
- Monitoring and keeping ESCP updated are Permit requirements
- Reporting permit noncompliance is a Permit requirement
- Falsification or reports, false statement, representation or certification in any record or document required under this permit is a class C felony punishable up to \$100,000 and 5 years in prison. (ORS 468.953)

Site Monitoring within 24 Hours

Is required after all storms that generate runoff.



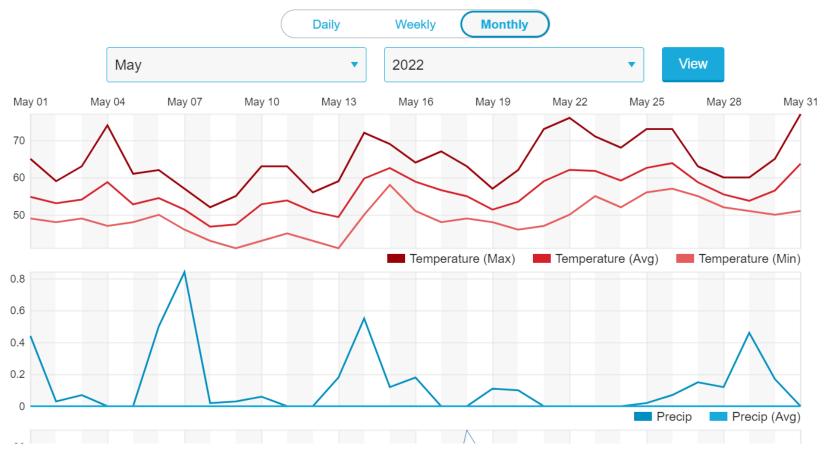
Discharge shown is <u>not</u> cause by storm. Paying attention to what occurs on project site is required

Monitoring: Each Inspection

- Confirm all BMPs are installed correctly and are providing effective function
- Confirm conditions that could release pollutants (leaks, spills etc.) are addressed
- Identify areas where new BMPs or maintenance of BMPs are needed,
- Identify areas of visible erosion or sedimentation,
- Document all findings and provide photos.



Weather DATA Monitored by DEQ



DEQ will cross check monitoring reports against weather records. Every rain event that results in runoff requires monitoring!

Non-Compliance Require Self Reporting & Corrective Actions

- Mistakes happen. Self-Reporting sediment discharge to DEQ actually builds trust,
- DEQ would be suspicious if conditions were always perfect,
- Within 24 hours do the following:
 - Provide narrative of non-compliance,
 - Provide photos of discharge,
 - Clean up sediment or discharge,
 - Provide plans for correcting ESC failure,
- Follow non-compliance report with corrective action.

Non-Compliance Require Immediate Corrective Actions

- Address conditions that caused discharge,
- Clean up sediment contamination left by discharge,
- Complete minor corrective actions by close of next business day,
- Install new or replacement BMPs, required by Corrective actions, within 24 hours,
- If completion of corrective actions within 24 hours is not feasible, document the schedule for implementing the corrective action,
- Revise ESCP to reflect corrective action repairs within 7 days.

Corrective Action Report Include:

- Site name and Project's Permit ID number,
- Description and cause of non-compliance,
- Photos of discharge and NTU of receiving water,
- Period of non-compliance,
- Names of person(s) conducting monitoring,
- Corrective steps taken and timeline of the corrective action,
- Note of weather that may have contributed to the discharge,
- Revisions of ESCP to show corrective action BMPs.

Corrective Action Result:

 When non-compliance is self reported, the discharge cleaned up, the cause of the discharge repaired and a Corrective Action Report submitted, the event will <u>not</u> be considered a permit violation.



Potentially contaminated sites must have Environmental Management Plan (EMP) with spill prevention control and countermeasure plans - will require ESCP designers coordinate with Haz-Mat

Roadside/shoulder soils are dirty & ODOT deals with this routinely and successfully

The Permit's Prohibited discharges remain similar to what we currently and successfully address

EMP requires Appendix A

Appendix A - Environmental
Management Plan Review
Applications for Contaminated Media
Management & Active Chemical
Treatment Systems

February 2022

Includes:

- Contaminated Media Management Plan guidelines,
- Contaminated Media Management Plan Application,
- Active Chemical Treatment Systems guidelines,
- Active Chemical Treatment
 Management Plan Application

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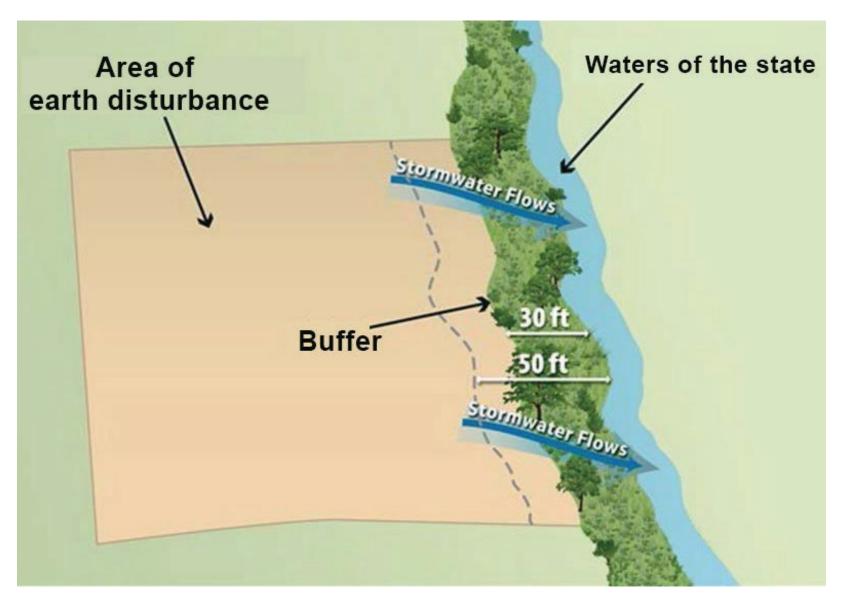
DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.



Buffer Zones

- Retain and protect Buffer Zones of natural, undisturbed vegetation between work and water bodies
- Buffer Zones are 50' in width
- Where space or ROW is limited, additional and/or redundant BMPs can provide equivalent protection
- TMDL limited waters get additional protection
- Appendix B provided detailed guidance on BMP equivalency and protections for TMDL waters

Buffer Zone (typ)



Buffer Zones Require Appendix B

Appendix B – Natural Buffer Zone Requirements

February 2022

Includes:

- Requirements for Providing Buffers
- Compliance Alternatives,
- Compliance Exceptions,
- ESC Equivalences to Buffers,
- Equivalencies Tables.
- Management Plan Application

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www.oregon.gov/DEQ

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Permit Requires Additional Tasks

- ESCM has more duties
- Threshold for monitoring after rainfall has changed
- Stricter oversight of concrete wash and alkalinity in stormwater runoff
- Environmental Management Plans (EMP)
- Sheets for each phase of construction
- Buffer Zones
- YDO Electronic Portal required for submittals



Erosion & Sediment Control Plans (ESCP) is more stringent and includes more administrative tasks

DEQ will be more involved in Projects and provide closer scrutiny

ESCM will have more duties and responsibility

ESC installations and maintenance will not be significantly changed from current best practices, but oversight will



ODOT is the Permit registrant and is responsible for compliance with the 1200-CA Permit



