U.S. EPA Webinar on the 2012 Construction General Permit (CGP)

Speakers: Greg Schaner, Erika Farris

Guide to Webinar

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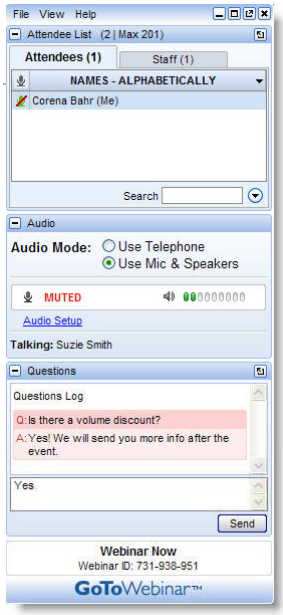

Topics

- Background
- Overview of EPA's Final 2012 Construction General Permit
  - How to Obtain Permit Coverage
  - Erosion and Sediment Control Requirements
  - Restrictions on Use of Treatment Chemicals
  - Pollution Prevention Requirements
  - Water-Quality Requirements
  - Inspection Requirements
  - Corrective Action Requirements
  - How to Terminate Permit Coverage

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Background

NPDES Construction Stormwater Permitting
Construction & Development Rule Effluent Guidelines
EPA's Construction General Permit

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Background

NPDES Construction Stormwater Permitting

- National Pollutant Discharge Elimination System (NPDES) permits are required for stormwater discharges from earth disturbances of 1 or more acres of land
- Most construction projects are covered under "construction general permits" or "CGPs" and coverage is obtained through submittal of a "Notice of Intent" or "NOI"
- CGPs typically include requirements to:
  - Implement and maintain BMPs
  - Prepare a stormwater pollution prevention plan (SWPPP)
  - Conduct self-inspections and perform maintenance
  - Document compliance activities

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Background

Construction & Development Rule Effluent Guidelines

- Effluent Limitations Guidelines and New Source Performance Standards for the construction and development industry ("C&D rule") became effective on February 1, 2010
- After this date, the C&D rule requirements must be incorporated into all EPA- and State-issued construction stormwater permits

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Background

Construction & Development Rule Effluent Guidelines

- The C&D rule includes a suite of non-numeric requirements that apply to all permitted construction sites
- When it was first issued, the C&D rule also included a numeric limit for turbidity applicable to sites disturbing 10 or more acres:
  - January 4, 2011: EPA stayed its numeric turbidity limit (280 NTU)
  - January 3, 2012: EPA requested additional data on the effectiveness of different controls in reducing turbidity from construction site discharges
  - Because EPA has not yet issued a corrected numeric limit, no EPA or State permits are required to include such limits

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Background

Construction & Development Rule Effluent Guidelines

Summary of C&D rule non-numeric effluent limits:

- **Erosion and Sediment Controls:**
  - Minimize
    - Sediment discharges
    - Soil exposed during construction activity
    - Disturbance to steep slopes
    - Soil compaction
  - Control volume to minimize erosion
  - Provide natural buffers (unless infeasible)
  - Utilize outlet structures that withdraw water from the surface when discharging from basins or outlets, unless infeasible

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Background

Construction & Development Rule Effluent Guidelines

Summary of C&D rule non-numeric effluent limits:

- **Site Stabilization**
  - Initiate stabilization immediately if construction work temporarily or permanently ceases
    - Deadline for completing stabilization must be established in permit
    - Alternative requirements for arid, semi-arid, and drought-stricken areas
- **Pollution Prevention**
  - Minimize stormwater exposure to construction materials, chemical products, wastes
  - Prohibit discharges from pollution sources, such as fuels and oils from vehicle and equipment O&M

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Background

EPA's Construction General Permit

- EPA's CGP only applies to areas where EPA is the NPDES permitting authority:
  - All discharges in: Idaho, Massachusetts, New Hampshire, New Mexico, the District of Columbia; Puerto Rico and all other U.S. territories (except the U.S. Virgin Islands)
  - Discharges from construction by federal operators in Colorado, Delaware, Vermont, and Washington
  - Most Indian lands; and
  - A few other specifically designated activities in specific states.
- States that have NPDES authorization issue their own construction stormwater permits
  - Many State-issued construction stormwater permits follow similar format and content as EPA's CGP

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Background

EPA's Construction General Permit

- The 2012 CGP replaces the 2008 CGP, which expired on February 15, 2012
  - Provides coverage for all new and existing construction projects
  - Permit expires in 5 years (February 16, 2017)
  - Includes a number of significant modifications to the 2008 CGP, including:
    - C&D rule requirements
    - Protections for impaired and sensitive waters
    - Enhancements to improve the permit's readability, clarity, and enforceability

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Overview of EPA's 2012 CGP

How to Obtain Permit Coverage
Erosion and Sediment Control Requirements
Pollution Prevention Requirements
Water-Quality Requirements
Inspection Requirements
Corrective Action Requirements
How to Terminate Permit Coverage

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How to Obtain Permit Coverage

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Overview of EPA's 2012 CGP

How to Obtain Permit Coverage

Step 1: Determine Eligibility

To be covered by the CGP, you must meet the following eligibility requirements:

- You are an "operator" of a construction project
- Your project will disturb 1 or more acres of land
- Your project is in an area where EPA is the permitting authority
- Your project has satisfied all other eligibility criteria
  - Endangered & threatened species requirements
  - Historic properties requirements
  - Cationic treatment chemical requirements

Note: The CGP does not alter the underlying regulatory or statutory requirements regarding which construction sites must be covered by a permit

- Oil and gas construction exemption still applies to the 2012 CGP

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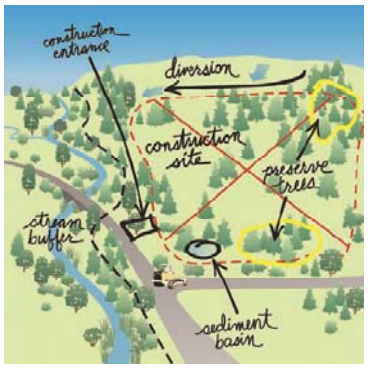
Overview of EPA's 2012 CGP

How to Obtain Permit Coverage

Step 2: Develop Your Stormwater Pollution Prevention Plan (SWPPP)

- SWPPPs must be developed prior to submitting NOI for permit coverage
- SWPPP contents:
  - Sequence and estimated dates of construction activities
  - Site map
  - Description of stormwater controls
  - Documentation of pollution prevention procedures
  - Documentation of procedures for inspections, maintenance, and corrective action



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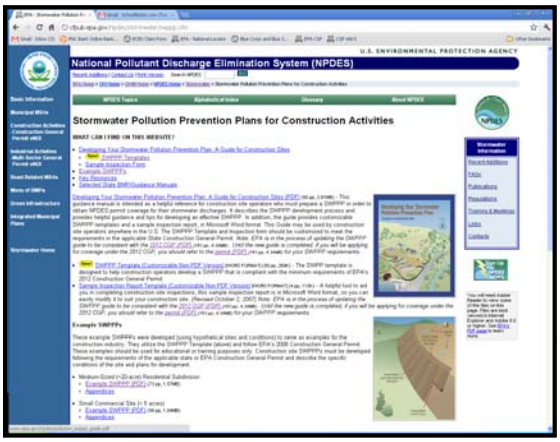
How to Obtain Permit Coverage

New SWPPP Tools

- Updated SWPPP Template (completed)
- Updated SWPPP Guide (~2 months)
- Sample SWPPPs (~3-4 months)
- Sample Inspection / Corrective Action Forms (~1-2 month)



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How to Obtain Permit Coverage

Step 3: Submit Your NOI

Deadlines for Submitting NOIs

Type of Project	Deadline to Submit	Date of Permit Coverage
New Project (construction commencing on or after Feb 16, 2012)	At least 14 days prior to construction commencement	14 days after EPA has acknowledged receipt of your NOI, unless your authorization has been delayed or denied
Existing Project (construction commencing before February 16, 2012)	No later than May 16, 2012	14 days after EPA has acknowledged receipt of your NOI, unless your authorization has been delayed or denied
Emergency-Related Project	No later than 30 days after construction commencement	Provisionally covered under the permit immediately, and fully covered 14 calendar days after EPA has acknowledged receipt of your NOI, unless your authorization has been delayed or denied

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How to Obtain Permit Coverage

Submitting Your NOI Form

- Use EPA's electronic Notice of Intent system ("eNOI system"): www.epa.gov/npdes/stormwater/cgpenoi

- If you have a problem with the use of the eNOI system, contact the EPA Regional Office for approval to use a paper NOI

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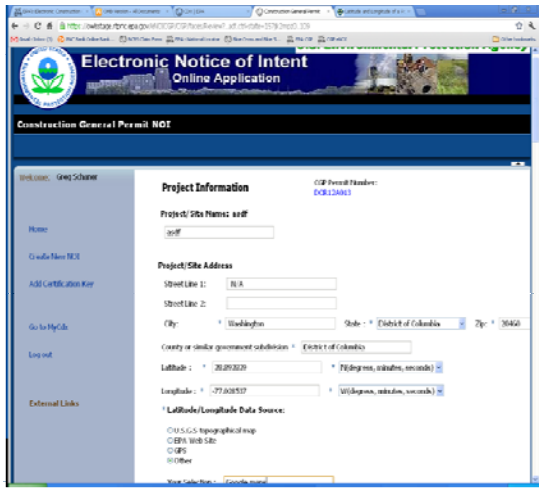
How to Obtain Permit Coverage

- Required information in the NOI:
  - Operator Information
  - Project/Site Information
  - Discharge Information
  - Chemical Treatment Information
  - SWPPP Information
  - Endangered Species Protection
  - Historic Preservation



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Questions & Answers

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Erosion and Sediment Control - Installation and Maintenance

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Erosion and Sediment Control Requirements – Installation and Maintenance

- Installation: By the time construction commences, SW controls to treat initial disturbance must be installed and made operational
  - Controls must be installed along perimeter areas of site that will receive SW flow
  - Remaining controls must be installed as soon as conditions allow

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Erosion and Sediment Control Requirements – Installation and Maintenance

- Maintenance: At any time, if a SW control needs repair or replacement to continue operating effectively
  - Initiate work to fix the problem immediately
  - Complete work by end of the next work day
    - Permit includes specific maintenance triggers for some controls, such as inlet protection, perimeter controls
  - If a SW control must be replaced or significantly repaired, work must be completed within 7 days, unless infeasible

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Erosion and Sediment Control - Natural Buffers

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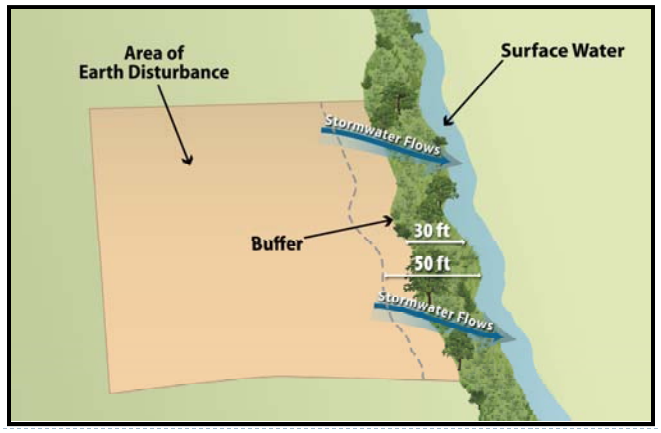
Erosion and Sediment Control Requirements – Natural Buffers

- If earth disturbances will occur within 50 feet of a surface water, additional protections apply



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Erosion and Sediment Control Requirements – Natural Buffers

- Must comply with 1 of 3 compliance alternatives:

1. Provide a 50-foot undisturbed natural buffer between construction disturbances and the surface water; or
2. Provide an undisturbed natural buffer that is less than 50 feet supplemented by additional erosion and sediment controls, which in combination, achieve a sediment load reduction that is equivalent to a 50-foot buffer; or
3. If it is infeasible to provide an undisturbed natural buffer of any size, implement erosion and sediment controls that achieve a sediment load reduction that is equivalent to a 50-foot buffer

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Erosion and Sediment Control Requirements – Natural Buffers

- Exceptions:
  - Buffer requirements don't apply if
    1. There is no stormwater discharge from construction disturbances to the surface water
    2. The natural buffer has already been eliminated by preexisting development disturbances
    3. The disturbance is for the construction of a water-dependent structure (pier, boat ramp) or construction approved under a CWA section 404 permit
  - Flexibility provided to small residential lots (< 1 acre disturbance, part of a common development plan) and linear construction projects

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Erosion and Sediment Control Requirements – Natural Buffers

Example of Calculating the Equivalent Sediment Load Reduction for Compliance Alternatives 2 & 3

- A site in New Mexico with a 1.5 acre disturbance within 50-feet of a surface water determines it is practicable to only provide a 28-ft buffer
- The operator determines the predominate vegetation to be prairie grass and the predominate soil type to be silt

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Erosion and Sediment Control Requirements – Natural Buffers

- **Step 1:** Estimate the Sediment Removal from the 50-foot Natural Buffer

Type of Buffer Vegetation	Clay	Silty Clay Loam or Clay-Loam	Sand	Sandy Clay Loam, Loamy Sand or Silty Clay	Loam, Silt, Sandy Loam or Silt Loam
Tall Fescue grass	71	85	80	86	90
Medium-density Weeds	56	73	55	66	78
Low-density Warm-season Native Bunchgrass (i.e., Grama Grass)	53	70	51	62	67
Southern Mixed Prairie Grass	53	71	52	63	**50**
Southern Range Cold Desert Shrubs	56	73	55	65	53

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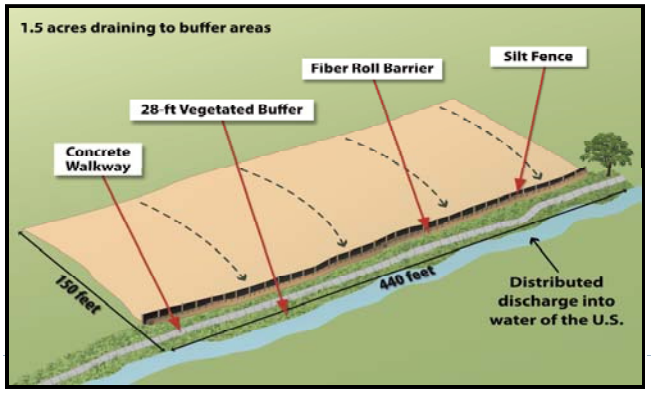
Erosion and Sediment Control Requirements – Natural Buffers

- **Step 2:** Design Controls that Match Sediment Removal Efficiency of 50-ft Buffer
- **Step 3:** Document How Site-Specific Controls Will Achieve Sediment Removal Efficiency of 50-ft Buffer



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Erosion and Sediment Control Requirements – Natural Buffers

Small Lot Flexibility Example

- A 0.5 acre site in Massachusetts determines it is practicable to only provide a 20 foot buffer
- The operator determines the average site slope to be 3%, and the predominate soil type to be silt

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Erosion and Sediment Control Requirements – Natural Buffers

Step 1: Determine Sediment Discharge Risk Level

Risk Levels for Sites with Average Slopes of ≤ 3 Percent

Soil Type / Location	Clay	Silty Clay Loam or Clay-Loam	Sand	Sandy Clay Loam, Loamy Sand or Silty Clay	Loam, Silt, Sandy Loam or Silt Loam
Massachusetts and New Hampshire	Low	Moderate	Low	Low	Moderate
Idaho	Low	Low	Low	Low	Low
New Mexico	Low	Low	Low	Low	Low
Washington D.C.	Low	Moderate	Low	Low	Moderate

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Erosion and Sediment Control Requirements – Natural Buffers

- **Small Lot Requirements**

Step 2: Determine Buffer Requirements Corresponding to Risk Level

Risk Level Based on Estimated Soil Erosion	Retain ≥ 50' Buffer	Retain <50' and >30' Buffer	Retain ≤30' and >10' Buffer	Retain ≤ 10' Buffer
Low Risk	No Additional Requirements	No Additional Reqts	Double Perimeter Control	Double Perimeter Control
Moderate Risk	No Additional Requirements	Double Perimeter Control	Double Perimeter Control	Double Perimeter Control and 7-Day Site Stabilization
High Risk	No Additional Requirements	Double Perimeter Control	Double Perimeter Control and 7-Day Site Stabilization	Double Perimeter Control and 7-Day Site Stabilization

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Questions & Answers

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Erosion and Sediment Control - Sediment Discharge Controls

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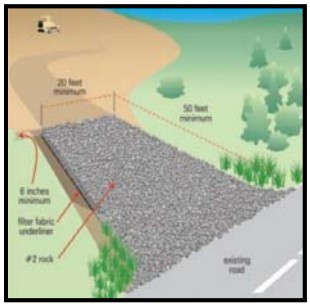
Erosion and Sediment Control Requirements – Sediment Discharge Controls

- Sediment track-out
  - Restrict vehicle use to designated exit points
  - Use appropriate stabilization techniques
  - Remove tracked-out sediment by end of the work day



- Soil or sediment stockpiles
  - Protect from contact with stormwater runoff using temporary barriers
  - Provide cover or appropriate temporary stabilization, where practicable

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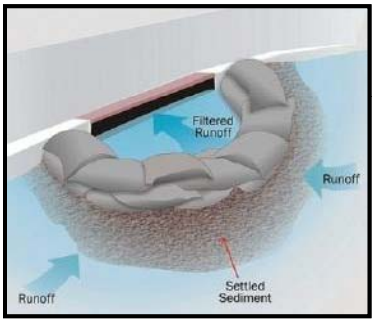
Erosion and Sediment Control Requirements – Sediment Discharge Controls

- Storm drain inlets
  - Install inlet protection measures (at sewer inlets that you can access) that remove sediment prior to discharge into storm drain
  - Can be removed in the event of flood conditions or to prevent erosion



- Sediment basins
  - Provide storage for either (1) the 2-year, 24-hour storm, or (2) 3,600 cubic feet per acre drained
  - Utilize outlet structures that withdraw water from surface, unless infeasible

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Erosion and Sediment Control Requirements – Sediment Discharge Controls

- Other related requirements:
  - Minimize amount of soil exposed at any one time during construction
  - Minimize steep slope disturbances
  - Minimize soil compaction
  - Direct SW to the site's vegetated areas unless infeasible

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Erosion and Sediment Control - Use of Treatment Chemicals

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Erosion and Sediment Control Requirements – Restrictions on Use of Treatment Chemicals

- If you will use treatment chemicals at your site, you are subject to the following minimum requirements:
  - Use conventional E&S controls prior to and after application of chemical
  - Select chemicals suited to soil type, and expected turbidity, pH, flow rate
  - Minimize discharge risk from stored chemicals
  - Apply in accordance with state/local requirements, good engineering practices, and dosage recommendations of chemical supplier
  - Ensure proper training

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Erosion and Sediment Control Requirements – Restrictions on Use of Treatment Chemicals

- Cationic treatment chemicals
  - Polymers, flocculants, or other chemicals that contain an overall positive charge
  - Reduce turbidity in SW discharges by chemically bonding to the overall negative charge of suspended sediment particles and causing them to bind together and settle out

  - Acute toxicity found when some freshwater species (rainbow trout) exposed to cationic chemicals at low levels
  - Common examples: chitosan and cationic PAM

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Erosion and Sediment Control Requirements – Restrictions on Use of Treatment Chemicals

- The use of cationic treatment chemicals is not allowed under the CGP unless EPA specifically authorizes its use:
  - You will need to contact the applicable EPA Regional Office if you intend to use cationic treatment chemicals at your site to determine what information EPA requires to evaluate your request
  - Use of cationic chemicals will likely be subject to additional requirements to ensure protection of water quality standards
  - Examples: maximum dosage rate, residual testing, jar testing

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Erosion and Sediment Control - Site Stabilization

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Erosion and Sediment Control Requirements – Site Stabilization

- When to Initiate Stabilization
  - By no later than the end of the next work day after construction work in an area has stopped permanently or temporarily
- When Stabilization Must be Completed
  - If using vegetative measures, by no later than 14 days after initiating stabilization, the operator must:
    - Seed or plant the area, and provide temporary cover to protect planted area
    - Once established, vegetation must cover at least 70% of stabilized area based on density of native vegetation

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Erosion and Sediment Control Requirements – Site Stabilization

- When Stabilization Must be Completed
  - If using non-vegetative stabilization, by no later than 14 days after initiating stabilization, the operator must:
    1. Install or apply all non-vegetative measures
    2. Cover all areas of exposed soil

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Erosion and Sediment Control Requirements – Site Stabilization

- Exceptions
  - Arid, semi-arid (if construction occurs during seasonally dry period), or drought-stricken areas:
    - Within 14 days of stopping construction work in an area, install any necessary non-vegetative stabilization measures
    - Initiate vegetative stabilization as soon conditions on the site allow
    - Document the schedule that will be followed for initiating and completing vegetative stabilization
    - Area must be planted so that within 3 years 70% cover requirement is met
  - Sites affected by severe storm events or other unforeseen circumstances (same as above for 3 requirements)

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Questions & Answers

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Pollution Prevention Requirements

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Pollution Prevention Requirements

The following discharges are prohibited:

- Wastewater from washout of concrete, unless managed by an appropriate control
- Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials, unless managed by an appropriate control
- Fuels, oils, or other pollutants used for O&M of vehicles or equipment
- Soaps or solvents used in vehicle or equipment washing
- Toxic or hazardous substances from a spill or other release

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Pollution Prevention Requirements

Design/Location Requirements

- Use effective means of preventing discharge from pollution sources
  - Minimize exposure, or
  - Use secondary containment or equivalent measures, or
  - Provide spill kits
- Use leak-proof containers for all chemicals
  - Locate away from surface waters, storm sewer inlets, and drainageways
  - Clean up spills immediately – do not clean by hosing area down

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Water Quality Requirements

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Water-Quality Requirements

- Construction site operators are required to determine if they discharge to a sensitive water
  - Surface waters impaired for sediment or nutrients
    - Use "water locator" tool in eNOI system, or
    - Other information sources
  - High quality water (Tier 2, Tier 2.5, or Tier 3)
    - Consult list of such waters in Appendix F

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Water-Quality Requirements

- Stricter requirements apply if a site will discharge to one of these sensitive waters
  1. More rapid stabilization of exposed areas
     - Complete initial stabilization activities within 7 days of stopping construction work (instead of 14)
  2. More frequent site inspections
     - Once every 7 days and within 24 hrs of storm event of 0.25 in or greater

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Inspections and Corrective Actions

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Inspection Requirements

- Inspection frequency:
  - At least once every 7 calendar days;

    or
  - Once every 14 calendar days and within 24 hours of a storm event of 0.25 inches or greater.
- Note:
  - Inspections only required during working hours
  - Inspections not required during unsafe conditions
  - If you choose to inspect once every 14 days, permittee must have a method for measuring rainfall amount on site (either rain gauge or representative weather station)

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Inspection Requirements

- Reductions in inspection frequency:
  - Stabilized areas: can reduce inspections to once per month
  - Arid, semi-arid, and drought stricken areas: if construction is occurring during the seasonally dry period or during a period in which drought is predicted to occur, can reduce inspections to once per month and within 24 hours of a 0.25 inch storm event
  - Frozen conditions: can temporarily suspend or reduce inspections (to once per month) until thawing conditions occur if frozen conditions are continuous and disturbed areas have been stabilized

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Inspection Requirements

- Areas to be inspected:
  - All disturbed areas
  - All stormwater controls and pollution prevention measures
  - All locations where stabilization measures have been implemented
  - Material, waste, borrow, or equipment storage and maintenance areas
  - All areas where stormwater flows
  - All points of discharge

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Inspection Requirements

- What to check for during inspections:
  - Whether all SW controls are installed, operational, and working as intended
  - If any new or modified stormwater controls are needed
  - Conditions that could lead to a spill or leak
  - Visual signs of erosion/sedimentation at points of discharge
  - If a discharge is occurring:
    - The quality and characteristics of the discharge
    - Whether controls are operating effectively
  - Conditions requiring corrective action

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Inspection Requirements

- Inspection report:
  - Within 24 hours of an inspection, complete a report that includes:
    - Inspection date
    - Name and title of inspector(s)
    - Summary of inspection findings
    - Rainfall amount that triggered the inspection (if applicable)
    - If it was unsafe to inspect a portion of the site, include documentation of the reason and the location(s)
  - Each inspection report must be signed
  - Must keep a current copy of all reports at the site or at an easily accessible location

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Corrective Action Requirements

- When are corrective actions required:
  - A SW control was never installed or was installed incorrectly
  - Your discharges are not meeting water quality standards
  - A prohibited discharge occurs
- If a corrective action is required, you must:
  - Immediately take all steps to prevent pollutant discharges until a permanent solution is implemented
  - Install a new or modified control and make it operational, or complete the repair, within 7 calendar days from the time of discovery.
    - If it is infeasible to complete the repair within 7 calendar days, you must document schedule for completing the repair

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Corrective Action Requirements

- Corrective action report:
  - Within 24 hours of a triggering condition occurring, complete a corrective action report that includes:
    - The condition identified at your site
    - The nature of the conditions identified
    - The date and time of the condition and how it was identified
  - Within 7 calendar days of a triggering condition occurring, complete a corrective action report that includes:
    - Any follow-up actions to review the design, installation, and maintenance of controls
    - A summary of stormwater control modifications taken or to be taken, including a schedule of actions to be taken to implement changes
    - Notice of whether SWPPP modifications are required
  - Each corrective action report must be signed
  - Must keep a current copy of all reports at the site or at an easily accessible location

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How to Terminate Coverage

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How to Terminate Permit Coverage

- Permit coverage must be terminated within 30 days of any of the following conditions occurring at the site:
  - All earth-disturbing activities on the site have been completed and final stabilization has been achieved
  - Permit coverage has been transferred to another operator
  - Coverage under an individual or alternative general NPDES permit has been obtained

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Overview of EPA's 2012 CGP

How to Terminate Permit Coverage

- Use EPA's electronic Notice of Intent system ("eNOI system"): www.epa.gov/npdes/stormwater/cgpenoi

  - If you have a problem with the use of the eNOI system, contact the EPA Regional Office for approval to use a paper NOT.

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Overview of EPA's 2012 CGP

How to Terminate Permit Coverage

- Required information in the NOT:
  - NPDES tracking number
  - Basis for NOT submission
  - Operator contact information
  - Name of project and address
  - NOT certification

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Questions & Answers

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For more information:

- Go to www.epa.gov/npdes/stormwater/cgp to view the permit, fact sheet, and additional information
- For any questions, e-mail cgp@epa.gov

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Participation Certificate

- If you would like to obtain a participation certificate, copy the link below into your web browser.

http://www.epa.gov/npdes/outreach_files/sw_webcast_cert_march1512.pdf

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