NSSP for CPD

Provides Section 13 Specifications for CCO to transition projects from 2009 Construction General Permit (CGP) requirements to 2022 CGP requirements. 2009 CGP projects will be administratively terminated 9/1/2025, all active construction work after 8/31/2025 will need to be covered under a 2022 CGP Waste Discharge Identification Number (WDID). Refer to CPD language for details.

CCO: Replace Section 13 with:

13 WATER POLLUTION CONTROL

13-1 GENERAL

13-1.01 GENERAL

13-1.01A Summary

Section 13-1 includes general specifications for preventing, controlling, and abating water pollution within waters of the State.{ XE "Water pollution control" }

Information on forms, reports, and other documents is in the following Department manuals:

- 1. Field Guide to Construction Site Dewatering
- 2. Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual
- 3. Construction Site Best Management Practices (BMPs) Manual
- 4. Construction Site Monitoring Program Guidance Manual

These manuals are available for review at the Stormwater and Water Pollution Control Information link at the Department's Division of Construction website.

A WPCP and a SWPPP must (1) comply with the Department's Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual and (2) be prepared using the latest template posted on the Construction stormwater website.

13-1.01B Definitions

active area: Area where soil-disturbing work activities have occurred at least once within 15 days.

construction phase: Phase that includes (1) the highway construction phase for building roads and structures, (2) the plant establishment, permanent erosion control establishment, and maintenance phase for placing vegetation for final stabilization, and (3) the suspension phase for suspension of work activities or a winter shutdown. The construction phase starts at the start of job site activities and ends at Contract acceptance.

inactive area: Area where soil-disturbing work activities have not occurred within 15 days.

inactive project: Project where all construction activities are fully stabilized and will be suspended for 30 days or more.

run-on: Water that originates off-site and flows onto the job site.

storm event: Any weather pattern that is forecast to have a 50 percent chance or greater probability of precipitation and a quantitative precipitation forecast of 0.5 inches or more within a 24-hour period. The event begins with the 24-hour period when 0.5 inches has been forecast and continues on subsequent 24-hour periods when 0.25 inches of precipitation or more is forecast.

13-1.01C Submittals

13-1.01C(1) General

Within 24 hours after a nonstormwater discharge, or within 48 hours after (1) the end of a storm event resulting in a discharge or (2) receiving a written notice or an order from the RWQCB or another regulatory agency, submit the following information:

1. Date, time, location, and nature of the activity and the cause of the discharge, notice, or order

- 2. Type and quantity of the discharge
- 3. WPC practices in use before the discharge or before receiving the notice or order
- 4. Description of WPC practices and corrective actions taken to manage the discharge or cause of the notice

Submittals for additional or new WPC practices to manage run-on, run-off, and stormwater conveyance must:

- 1. Describe the activities, processes, equipment, and materials that will be used to manage the run-on, run-off, and stormwater conveyance through the job site
- 2. Show the locations of the management practices
- 3. Include a time-scaled logic diagram displaying the sequence and duration of the management practices for each stage of work
- 4. Be sealed and signed by an engineer who is registered as a civil engineer in the State

13-1.01C(2) Training Records

For all employees and subcontractors who will be working at the job site, submit WPC training records as informational submittals. The records must include the training subjects and dates for the initial training, ongoing training, and tailgate meetings. Submit records for:

- 1. Existing employees within 5 business days of obtaining the SWPPP or WPCP authorization
- 2. New employees within 5 business days of receiving the training
- 3. Subcontractors' employees at least 5 business days before a subcontractor starts work

13-1.01C(3) Contractor-Support Facilities

At least 5 business days before operating any Contractor-support facility, submit:

- 1. Plan showing the location and associated WPC practices.
- Copy of the notice of intent approved by the RWQCB and the WPCP or SWPPP approved by the RWQCB if you will be operating a batch plant or a crushing plant under the Industrial General Permit.
- 3. Copy of the plans for an offsite drying facility if you will be drying liquid residue from concrete grooving or grinding activities before disposal. The facility may include temporary lined ponds or other measures to prevent the liquid residue from infiltrating the soil. The plans must be sealed and signed by an engineer who is registered as a civil engineer in the State.

13-1.01C(4) Disposal Documentation

At least 15 days before starting concrete grooving or grinding activities, submit a copy of one of the following documents from the disposal facility that will receive the grooving or grinding residue:

- 1. RWQCB permit allowing the facility to manage and dispose of the residue
- 2. Written approval from the RWQCB authorizing the facility to receive the residue
- 3. Local, state, or federal permits if the facility is located outside the State

Within 5 business days of completing concrete grooving or grinding activities, submit the disposal receipts and weight tickets as informational submittals.

For partial listing of disposal facilities and their waste acceptance list, go to SWRCB website.

13-1.01C(5)-13-1.01C(8) Reserved

13-1.01D Quality Assurance

13-1.01D(1) General

Reserved

13-1.01D(2) Regulatory Requirements

Comply with the Department's general permit order issued by the SWRCB for NPDES No. CAS000003, National Pollutant Discharge Elimination System Statewide Stormwater Permit and Waste Discharge Requirements for State of California, Department of Transportation. The Department's general permit governs stormwater and nonstormwater discharges from the Department's properties, facilities, and

activities. For the Department's general permit, go to the Caltrans Program link on the Municipal Stormwater Program page of the SWRCB website.

Discharges from manufacturing facilities, such as batch plants and crushing plants, must comply with the discharge requirements in the NPDES General Permit for Storm Water Discharges Associated with Industrial Activities Order; CAS000001 (Industrial General Permit), issued by the SWRCB. For the Industrial General Permit, go to the SWRCB website.

For a batch plant and crushing plant outside a job site or within a job site that serves one or more contracts, obtain coverage under an Industrial General Permit before operating a batch plant to manufacture concrete, HMA, or other material or a crushing plant to produce rock or aggregate.

13-1.01D(3) Training

Employees must receive initial WPC training before starting work at the job site.

For project managers, supervisory personnel, subcontractors, and employees involved in WPC work:

- 1. Provide stormwater training in the following subjects:
 - 1.1. WPC rules and regulations
 - 1.2. Implementation and maintenance of:
 - 1.2.1. Temporary soil stabilization
 - 1.2.2. Temporary sediment control
 - 1.2.3. Tracking control
 - 1.2.4. Wind erosion control
 - 1.2.5. Material pollution prevention and control
 - 1.2.6. Waste management
 - 1.2.7. Nonstormwater management
- 2. Conduct weekly training meetings covering:
 - 2.1. Deficiencies and corrective actions for WPC practices
 - 2.2. WPC practices required for work activities during the week
 - 2.3. Spill prevention and control
 - 2.4. Material delivery, storage, usage, and disposal
 - 2.5. Waste management
 - 2.6. Nonstormwater management procedures

Training for assistant WPC managers who inspect, repair, and maintain WPC practices, collect water quality samples, and record water quality data must include:

- 1. Review of the sampling and analysis plan and the *Construction Site Monitoring Program Guidance* Manual
- 2. Health and safety review
- 3. Sampling simulations

The training for assistant WPC managers must comply with the requirements described under "WPC Manager Training," and includes:

- 1. Obtaining a certificate by completing the 8-hour WPC manager training
- 2. Reviewing updates, revisions, and amendments to the training

For training requirements, go to the Construction Storm Water and Water Pollution Control website.

13-1.01D(4) Water Pollution Control Manager

13-1.01D(4)(a) General

Assign a WPC manager{ XE "Water pollution control manager" } to implement the WPCP or SWPPP. Assign an alternate WPC manager to perform the responsibilities of the WPC manager in the manager's absence. The alternate WPC manager must have the same qualifications as the WPC manager. An assistant WPC manager may be assigned to act under the supervision of the WPC manager to inspect, repair, and maintain WPC practices, collect water quality samples, and record water quality data. You may have more than one assistant WPC manager.

13-1.01D(4)(b) Qualifications

The WPC manager must:

- 1. Comply with the requirements provided in the Construction General Permit for QSP
- 2. Comply with the requirements described under "WPC Manager Training," including:
 - 2.1. Obtaining a certificate by completing the 8-hour training
 - 2.2 Reviewing updates, revisions, and amendments to the training

For the requirements, go to the Construction Storm Water and Water Pollution Control website.

13-1.01D(4)(c) Responsibilities

The WPC manager must:

- 1. Be the primary contact responsible for WPC work
- 2. Oversee WPC work, including:
 - 2.1. Maintenance of WPC practices
 - 2.2. Inspections of WPC practices identified in the SWPPP or WPCP
 - 2.3. Inspections and reports for visual monitoring
 - 2.4. Sampling and analysis
 - 2.5. Preparation and submittal of:
 - 2.5.1. NAL exceedance reports
 - 2.5.2. Violation reports for the receiving water monitoring trigger
 - 2.5.3. Annual reports
 - 2.5.4. Stormwater Site Inspection Reports
- 3. Oversee and enforce hazardous waste management practices under section 14-11, including spill prevention and control measures
- 4. Have the authority to:
 - 4.1. Mobilize crews to make immediate repairs to WPC practices
 - 4.2. Stop construction activities damaging WPC practices or causing water pollution
- 5. Ensure that all employees have current WPC training and provide training if collecting water quality samples is delegated
- 6. Implement the authorized SWPPP or WPCP
- 7. Revise the WPCP or recommend changes to the SWPPP
- 8. Be at the job site within 2 hours of being contacted

13-1.01D(5)-13-1.01D(8) Reserved

13-1.02 MATERIALS

Not Used

13-1.03 CONSTRUCTION

13-1.03A General

Monitor the National Weather Service's forecast daily at its website.

Install facilities and devices used for WPC practices before performing other job site activities. Install soil stabilization and sediment control materials for WPC practices in all active areas or before any storm event.

Repair or replace facilities and devices used for WPC practices within 24 hours of discovering any damage.

You may request or the Engineer may order changes to the WPC work. Changes may include additional or new WPC practices. Additional WPC work is change order work except when the additional WPC practices are a result of your means and methods.

Retain a current copy of the authorized WPCP or SWPPP at the job site. Maps must be printed in full size. The remainder of the WPCP or SWPPP may be in electronic format.

13-1.03B Contractor-Support Facilities

Use WPC practices to protect stormwater systems or receiving waters from the discharge of potential pollutants from any Contractor-support facility.

Contractor-support facilities include:

- 1. Staging areas
- 2. Storage yards for equipment and materials
- 3. Mobile operations
- Batch plants for concrete and HMA
- 5. Crushing plants for rock and aggregate
- 6. Other facilities installed for your convenience, such as haul roads
- 7. Offsite drying facilities for drying wastes before disposal

If material is obtained or disposed of at a noncommercially operated borrow or disposal site, (1) prevent water pollution due to erosion at the site during and after completion of your activities, and (2) leave the site in a condition such that water will not collect or stand in it.

13-1.03C Inspections

Use the Stormwater Site Inspection Report form for documenting inspections.

Inspect WPC practices identified in the SWPPP or WPCP:

- 1. Before a forecasted storm event
- 2. After a storm event that produces runoff
- 3. At 24-hour intervals during extended storm events
- 4. On a predetermined schedule of at least once a week

Inspect the following work activities and areas daily:

- 1. Storage areas for hazardous materials and waste as specified in section 14-11
- Hazardous waste disposal and transporting activities as specified in section 14-11
- Hazardous material delivery and storage activities
- 4. Demolition sites

Inspect vehicles and equipment at the job site daily for leaks and spills. Verify that operators are inspecting vehicles and equipment each day of use.

Inspect the following work activities and areas daily if the activity occurs daily or weekly if the activity occurs weekly:

- 1. Vehicle and equipment cleaning facilities
- 2. Vehicle and equipment maintenance and fueling areas
- 3. Pile driving areas for leaks and spills
- 4. Temporary concrete washouts
- 5. Paved roads at job site access points for street sweeping
- 6. Dewatering work
- Temporary ATS
 Work over water

13-1.03D Deficiencies

If a deficiency in the implementation of the authorized WPCP or SWPPP is identified, immediately correct the deficiency unless a later date is authorized, but before precipitation occurs.

The Department may correct the deficiency if you fail to correct it immediately, by the agreed date, or before the onset of precipitation. The cost of this work is deducted.

13-1.03E-13-1.03H Reserved

13-1.04 PAYMENT

The Department does not pay for the cleanup, repair, removal, disposal, or replacement of WPC practices due to improper installation or negligence.

The Department does not pay for WPC practices at Contractor-support facilities and noncommercially operated borrow or disposal sites.

13-2 WATER POLLUTION CONTROL PROGRAM

13-2.01 GENERAL

13-2.01A Summary

Section 13-2 includes specifications for a water pollution control program. { XE "Water pollution control program" }

Water pollution control program includes developing and implementing the WPCP, providing a WPC manager, conducting WPC training, and monitoring, inspecting and correcting WPC practices.

If the Department determines that the project qualifies for an erosivity waiver or notice of non-applicability, the conditions are specified in the special provisions. The erosivity waiver, notice of non-applicability, and R-factor are described in the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order No. 2022-0057-DWQ, NPDES No. CAS000002).

13-2.01B Definitions

Reserved

13-2.01C Submittals

Submit your WPCP within 7 days after Contract approval.

A QSP may be assigned other than the WPC manager to develop the WPCP.

The WPCP must:

- 1. Describe the work involved in the installation, maintenance, repair, and removal of temporary WPC practices
- 2. Include maps showing:
 - 2.1. Locations of disturbed-soil areas
 - 2.2. Water bodies and conveyances
 - 2.3. Locations and types of WPC practices that will be used for each Contractor-support facility
 - 2.4. Locations and types of temporary WPC practices that will be used in the work for each construction phase
 - 2.5. Locations and types of WPC practices that will be installed permanently under the Contract
 - 2.6. Locations planned for the storage and use of potential nonvisible pollutants
 - 2.7. Locations and types of WPC practices that will be used for activities or mobile activities related to all NPDES permits
- 3. Include a schedule showing when:
 - 3.1. Work activities that could cause the discharge of pollutants into stormwater will be performed
 - 3.2. WPC practices, including soil stabilization and sediment control, will be used in the work for whichever has the longest duration in the first
 - 3.2.1. 60 days
 - 3.2.2. Construction phase
- 4. Include contact information of all personnel responsible for WPC practices
- 5. Include a copy of each permit obtained by the Department, such as the Department of Fish and Wildlife permits, US Army Corps of Engineers permits, RWQCB 401 certifications, Docket No. ESPO-SMA 15/16-001 Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils with the DTSC (ADL Agreement), ADL Agreement notification, and RWQCB waste discharge requirements for reuse of aerially deposited lead

Allow 5 business days for review.

After the Engineer authorizes the WPCP, submit one printed copy of WPCP maps and an electronic copy of the complete authorized WPCP.

If a RWQCB requires review of the authorized WPCP, the review is specified in the special provisions and the Engineer submits the authorized WPCP to the RWQCB for review and comment.

If the Engineer orders changes to the WPCP based on the RWQCB's comments, submit a revised WPCP within 3 business days.

Do not start job site activities until (1) the WPCP is authorized and for projects with an erosivity waiver or notice of non-applicability, (2) a waiver identification number has been issued.

Submit a revised WPCP if:

- 1. Changes in work activities could affect the discharge of pollutants
- 2. WPC practices are added as change order work
- 3. WPC practices are added at your discretion
- 4. Changes in the quantity of disturbed soil are substantial
- 5. Objectives for reducing or eliminating pollutants in stormwater discharges have not been achieved
- 6. Project receives a written notice or order from the RWQCB or any other regulatory agency
- 7. Changes are made to the management or WPC practices for dewatering discharge

13-2.01D Quality Assurance

Reserved

13-2.02 MATERIALS

Not Used

13-2.03 CONSTRUCTION

Manage work activities such that you reduce the discharge of pollutants to surface waters, groundwaters, and municipal-separate storm sewer systems.

Monitor and inspect WPC practices at the job site.

Notify the Engineer within 6 hours whenever you:

- 1. Identify discharges into receiving waters or drainage systems that are causing or could cause water pollution
- 2. Receive a written notice or order for the project from the RWQCB or any other regulatory agency

Notify the Engineer at least 32-hours in advance of dewatering activity discharges.

Continue WPCP implementation during any suspension of work activities.

Submit a SWPPP and pay all associated costs if:

- 1. 1 ac or more of soil is disturbed on a project without an erosivity waiver.
- 2. More than 5 ac of soil is disturbed on a project with an erosivity waiver.
- 3. There is a failure to comply with the schedule for soil-disturbing activities for a project with an erosivity waiver and the delay voids the erosivity waiver.
- 4. There is a change in site conditions for a project with a notice of non-applicability such that it becomes hydrologically connected to waters of the United States.

13-2.04 PAYMENT

Payments will be prorated over the life of the contract.

13-3 STORMWATER POLLUTION PREVENTION PLAN

13-3.01 GENERAL

13-3.01A Summary

Section 13-3 includes specifications for a stormwater pollution prevention plan for projects that will disturb 1 ac or more of soil.{ XE "Stormwater pollution prevention plan" }

Stormwater pollution prevention plan includes developing and implementing the plan, providing a WPC manager, conducting WPC training, and monitoring, inspecting, and correcting WPC practices.

Except for projects in the Lake Tahoe Hydrologic Unit or on federal or tribal lands, the Department establishes an environmental risk level for each project. The project's risk level is specified in the special provisions.

13-3.01B Definitions

- **surface water buffer:** 50-foot undisturbed natural buffer from the edge of disturbed soil areas to receiving water's top of bank.
- **total maximum daily load:** The sum of the maximum amount of a pollutant that a waterbody can receive per day and still meet state water quality standards. It is the sum of the individual waste load allocations for point sources, the load allocations for nonpoint and natural background sources, and the margin of safety.

13-3.01C Submittals

13-3.01C(1) General

Submit the documents shown with an *X* in the following table:

Document	Risk level 1	Risk level 2	Risk level 3	EPA
SWPPP	Х	Х	Х	Х
Construction Site Monitoring Program	Х	Х	Х	Х
Job site monitoring reports	Х	Х	Х	Х
Sampling and analysis plan	Х	Х	Х	Х
Sampling and analysis plan for nonvisible pollutants	Х	Х	X	Х
Sampling and analysis plan for pH and turbidity		Х	Х	
NAL/NEL reports		Х	Х	
Receiving water monitoring trigger reports			X	
Stormwater Site Inspection Report	Х	Х	Х	Х
Pre-Storm Event Inspection	Х	Х	Х	
During- and Post-Storm Event	Х	Х	Х	Х
Inspection				
Stormwater Annual Report	X	X	X	Х
Notice of Termination Report	X	Х	X	Х

Submittal Requirements

13-3.01C(2) Stormwater Pollution Prevention Plan

13-3.01C(2)(a) General

Submit your SWPPP within 15 days of Contract approval.

A QSD must be assigned to develop and revise the SWPPP.

The SWPPP must:

- 1. Describe the work involved in the installation, maintenance, repair, and removal of temporary and permanent WPC practices.
- 2. Include maps showing:
 - 2.1. Locations of disturbed-soil areas
 - 2.2. Water bodies and conveyances
 - 2.3. Locations and types of WPC practices that will be used for each Contractor-support facility
 - 2.4. Locations and types of temporary WPC practices that will be used in the work for each construction phase
 - 2.5. Locations and types of WPC practices that will be installed permanently under the Contract
 - 2.6. Water quality sampling locations
 - 2.7. Locations planned for the storage and use of potential nonvisible pollutants
 - 2.8. Receiving-water sampling locations
 - 2.9. Locations of surface water buffers
- 3. Include a Construction Site Monitoring Program or Construction Site Monitoring and Reporting Program as applicable.
- 4. Include a schedule showing when:

- 4.1. Work activities that could cause the discharge of pollutants into stormwater will be performed
- 4.2. WPC practices, including soil stabilization and sediment control, that will be used in the work for whichever has the longest duration in the first:
 - 4.2.1. 60 days
 - 4.2.2. Construction phase
- 5. Include a copy of each permit obtained by the Department, such as the Department of Fish and Wildlife permits, US Army Corps of Engineers permits, RWQCB 401 certifications, Docket No. ESPO-SMA 15/16-001 Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils with the DTSC (ADL Agreement), ADL Agreement notification, and RWQCB waste discharge requirements for aerially deposited lead reuse.
- 6. Include training records for project personnel.
- 7. Include contact information of all personnel responsible for WPC practices.
- Include sediment load calculations for surface water buffer when required by the Permit. Calculate sediment load of surface water buffer and equivalent sediment load reductions achieved with WPC practices when a 50-foot undisturbed buffer cannot be maintained using RUSLE2 or other approved method.
- 9. Include RUSLE2 modeling results for site specific TMDL requirements when required by Attachment H of the Permit.
 - 9.1 Look up your project location to determine if Attachment H TMDL RUSLE2 requirements apply. RUSLE2 pre-project and post-project modeling may be required for Sediment TMDLs within the North Coast RWQCB, Nutrient TMDLs within the Santa Ana RWQCB, and Metal and Toxics TMDLs within the Los Angeles and Santa Ana RWQCBs.
 - 9.2 Use USDA RUSLE2 modeling tool. Caltrans RUSLE2 modeling tool may be used once it's publicly available.

If revisions are required, the Engineer notifies you of the date when the review stopped and provides comments. Submit a revised SWPPP within 15 days of receiving the comments. The Department's review resumes when a complete SWPPP has been resubmitted.

If the RWQCB requires review of the authorized SWPPP, the Engineer submits it to the RWQCB for review and comment. If the Engineer orders changes to the SWPPP based on the RWQCB's comments, submit a revised SWPPP within 10 days.

Do not start job site activities until (1) the SWPPP is authorized and (2) a waste discharge ID number is issued.

Submit a revised SWPPP annually before September 15th and any time:

- 1. Changes in work activities could affect the discharge of pollutants
- 2. WPC practices are added as change order work
- 3. WPC practices are added at your discretion
- 4. Changes in the quantity of disturbed soil are substantial
- 5. Objectives for reducing or eliminating pollutants in stormwater discharges have not been achieved
- 6. You receive a written notice of a permit violation for the project from the RWQCB or any other regulatory agency
- 7. Changes are made to dewatering discharge WPC practices
- 8. Changes are made to WPC manager, alternate WPC manager, or assistant WPC manager assignments or delegated functions
- 9. Changes are made to the project inactive status

Revise the SWPPP through amendment. The annual SWPPP amendment must include an annual winterization plan.

The annual winterization plan must describe the preparation for the upcoming rainy season including:

- 1. Updated schedule
- 2. Materials and labor
- 3. Management of stormwater through the job site including:
 - 3.1. Run-on
 - 3.2. Run-off
 - 3.3. Conveyance downslope

- 4. Management of areas within the job site including:
 - 4.1. Areas where work is suspended
 - 4.2. Areas of soil stabilization
 - 4.3. New disturbed soil areas
- 5. Changes to monitoring locations
- 6. Slope stabilization
- 7. Management of dewatering discharges

Prepare an inactive project plan when beginning or ending inactive project status. The inactive project plan must include:

- 1. Updated schedule
- 2. Site stabilization measures
- 3. Construction activity status
- 4. Revised site map with current site conditions
- 5. Include photographs showing stabilization WPC practices
- 6. Changes to WPC management and inspections

13-3.01C(2)(b) Construction Site Monitoring Program

13-3.01C(2)(b)(i) General

Submit a construction site monitoring program with your SWPPP{ XE "Stormwater pollution prevention plan:construction site monitoring program" }. The program must be prepared by a QSD.

For all projects, submit:

- 1. Visual monitoring procedures
- 2. Sampling and analysis plan for nonvisible pollutants
- 3. Sampling and analysis plan for nonstormwater discharges
- 4. Sampling and analysis plan for monitoring required by the RWQCB

For projects with dewatering activities, also submit a sampling and analysis plan for pH and turbidity.

For a risk level 2 project, also submit a sampling and analysis plan for pH and turbidity.

For a risk level 3 project, also submit:

- 1. Sampling and analysis plan for pH and turbidity
- 2. Sampling and analysis plan for receiving-water monitoring
- 3. Sampling and analysis plan for any temporary ATS

Change the program as needed to reflect the current job site activities.

13-3.01C(2)(b)(ii) Site Inspection Reports

Submit a Stormwater Site Inspection Report as an informational submittal within 24 hours of completing an inspection. The WPC manager must oversee the preparation of this report. The report must include the location and quantity of installed WPC practices and disturbed soil.

The following site inspection reports must be performed by the QSD:

- 1. One within 30 days of construction activities starting
- 2. One within 30 days of a new site QSD
- 3. Once between August 1 and October 31 of each year
- 4. Once between January 1 and March 31 of each year
- 5. Within 14 calendar days after a NAL exceedance
- 6. Within 14 calendar days of an inactive project status
- 7. As requested by Water Board staff

The following site inspection reports must be performed by the QSP:

- 1. Once every calendar month
- 2. Once within 72 hours of each forecasted storm event

- 3. Within 14 days after a NAL exceedance
- 4. Before the final Notice of Termination or Change of Information of all or part of the site

An assistant WPC manager cannot perform the above listed QSD and QSP inspection reports.

13-3.01C(2)(b)(ii)(A) Notice of Termination Report

The site inspection report for the final Notice of Termination must include site photos to document final site conditions and a final site map with the following:

- 1. Project boundaries and adjacent lands with labeled key features such as roadways and waterbodies
- 2. Developed drainage basin boundaries and discharge location points
- 3. Features related to the project that may be used as a reference, such as site entrance and exists, lot boundaries, roads, and structures
- 4. Permanent WPC practices using hatch patterns, symbols or shading unique to each WPC practice
- 5. Location and orientation of site photographs used to document final site conditions
- 6. Areas of the site being transferred to new ownership with the name and contact information of the owner

13-3.01C(2)(b)(iii) Visual Monitoring Reports

Submit a copy of the visual monitoring report on a Stormwater Site Inspection Report form for each storm event inspection and nonstormwater discharges. The visual monitoring report must include:

- 1. Name of personnel performing the inspection, inspection date, and date the inspection report is completed
- 2. Storm and weather conditions
- 3. Location of any of the following:
 - 3.1. Floating and suspended material, sheen on the surface, discoloration, turbidity, odor, and source of observed pollutants for flowing and contained stormwater systems
 - 3.2. Nonstormwater discharges and their sources
- 4. Photographs of WPC practices and QSP's description of problem areas
- 5. Corrective action taken

Visual observations are not required (1) During dangerous weather conditions, such as flooding or electrical storms, or (2) Outside of normal working hours.

Retain a copy of the visual monitoring reports at the job site as part of the SWPPP.

13-3.01C(2)(b)(iii)(A) Pre-Storm Event Inspection Report

Submit a pre-storm event inspection report within 2 business days before the predicted storm event. The report must include:

- 1. Date and time
- 2. Visual observations:
 - 2.1. Spills, leaks, or uncontrolled pollutants in drainage areas
 - 2.2. Proper implementation of WPC practices
 - 2.3. Leaks and adequate freeboard in storage areas
- 3. A copy of the detailed forecast table for the project location from the National Weather Service

13-3.01C(2)(b)(iii)(B) During- and Post-Storm Event Inspection Report

Each during- and post-storm event inspection report must include:

- 1. Date, time, and rain gauge reading
- 2. Visual observations:
 - 2.1. Every 24 hours during the storm event for:
 - 2.2.1. Effectiveness of WPC practices
 - 2.2.2. WPC practices needing maintenance and repair
 - 2.2. Within 2 business days after a storm event for:
 - 2.3.1. Stormwater discharge locations

- 2.3.2. Evaluation of design, implementation, effectiveness, and locations of WPC practices, including locations where additional WPC practices may be needed
- 2.3.3. Evidence of non-visible pollutant discharges due to a failure to implement WPC practices, a container spill or leak, or a WPC practice breach, failure, or malfunction
- 3. Sampling results

13-3.01C(2)(b)(iv) Sampling and Analysis Plan

Submit a sampling and analysis plan that complies with the Department's *Construction Site Monitoring Program Guidance Manual*.

The sampling and analysis plan must describe:

- 1. Sampling equipment and sample containers.
- 2. Preparation of samples.
- 3. Collection and holding times.
- 4. Field measurement methods.
- 5. Analytical methods.
- 6. Quality assurance and quality control.
- 7. Sample preservation and labeling.
- 8. Collection documentation, including the names of personnel collecting samples and their training.
- 9. Shipment of samples.
- 10. Chain of custody.
- 11. Data management and reporting.
- 12. Precautions from the construction site health and safety plan, including procedures for collecting samples during precipitation. List the conditions under which you are not required to collect samples, such as:
 - 12.1. Dangerous weather
 - 12.2. Flooding or electrical storms
 - 12.3. Times outside of normal working hours
- 13. Procedures for collecting and analyzing 1 sample from each discharge location for each day of each storm event for a risk level 2 or risk level 3 project.
- 14. Procedures for collecting effluent samples at all locations where the stormwater is discharged off the job site.

The sampling and analysis plan must identify the State-certified laboratory that will perform the analyses. For a list of State-certified laboratories, go to the SWRCB's website.

Submit a revised plan if discharges or sampling locations change because of changed work activities or knowledge of site conditions.

13-3.01C(2)(b)(v) Sampling and Analysis Plan for Nonvisible Pollutants

Submit a sampling and analysis plan for monitoring nonvisible pollutants.

The sampling and analysis plan must identify potential nonvisible pollutants present at the job site associated with any of the following:

- 1. Construction materials and wastes
- 2. Existing contamination due to historical site usage
- 3. Application of soil amendments, including soil stabilization materials, with the potential to change pH or contribute toxic pollutants to stormwater
- 4. TMDL related pollutants. Look up your project location in Attachment H of the Permit to determine if TMDL requirements apply.

The sampling and analysis plan for nonvisible pollutants must include sampling procedures for the following conditions if observed during a stormwater visual inspection. Include a procedure for collecting at least 1 sample at each discharge location associated with one of the following nonvisible pollutant triggering conditions:

1. Materials or wastes containing potential nonvisible pollutants not stored under watertight conditions

- 2. Materials or wastes containing potential nonvisible pollutants stored under watertight conditions at locations where a breach, leak, malfunction, or spill occurred and was not cleaned up before the precipitation
- 3. Chemical applications occurring within 24 hours before precipitation or during precipitation that could discharge pollutants to surface waters or drainage systems, including applications of fertilizer, pesticide, herbicide, methyl methacrylate concrete sealant, or nonpigmented curing compound
- 4. Applied soil amendments, including soil stabilization materials that could change pH levels or contribute toxic pollutants to stormwater runoff and discharge pollutants to surface waters or drainage systems, unless independent test data is available to indicate acceptable concentrations of nonvisible pollutants in the material
- 5. Stormwater runoff from an area contaminated by the historical usage of the site that could discharge pollutants to surface waters or drainage systems

The sampling and analysis plan for nonvisible pollutants must:

- 1. Include sampling procedures and a schedule for:
 - 1.1. Sample collection within 8 hours from each discharge location hydraulically down-gradient from the observed nonvisible pollutant triggering condition
 - 1.2. One sample per applicable discharge location for each 24-hour period that there is a discharge, until the necessary corrective actions are completed to control further discharge of the pollutant
 - 1.3. Each nonvisible pollutant source
 - 1.4. Uncontaminated control sample
- Identify the locations for sampling downstream and collecting control samples and the reasons for selecting those locations. Select locations for control samples where the sample does not come in contact with materials, wastes, or areas associated with potential nonvisible pollutants or disturbed soil areas.

13-3.01C(2)(b)(vi) Sampling and Analysis Reports

13-3.01C(2)(b)(vi)(A) General

Submit your water quality analysis results and the QC report within 48 hours of field sampling and within 30 days of laboratory analysis.{ XE "Stormwater pollution prevention plan:sampling and analysis reports" }

The QC report must include an evaluation of whether the downstream samples show levels of the tested parameter that are higher than the control sample. The evaluation must include:

- 1. Sample ID number
- 2. Contract number
- 3. Constituent
- 4. Reported value
- 5. Analytical method
- 6. Method detection limit
- 7. Reported limit

Retain a copy of the water quality sampling and analysis results with the SWPPP at the job site.

13-3.01C(2)(b)(vi)(B) Numeric Action Level and Numeric Effluent Limit Exceedance Reports

If a NAL or NEL is exceeded, immediately notify the Engineer. Submit a NAL exceedance report within 48 hours of the observed exceedance for pH or turbidity. Submit a NAL or NEL exceedance report within 48 hours of obtaining analytical results demonstrating a TMDL-related exceedance. The report must include:

- 1. Field sampling results and inspections, including:
 - 1.1. Analytical methods, reporting units, and detection limits
 - 1.2. Date, location, time of sampling, visual observations, and measurements
 - 1.3. Quantity of precipitation from the storm event
- 2. Description of WPC practices and corrective actions taken to manage exceedance of the NAL

13-3.01C(2)(b)(vi)(C) Receiving-Water Monitoring Trigger Reports

If a receiving-water monitoring trigger is exceeded, notify the Engineer and submit a monitoring trigger report within 48 hours after the conclusion of a storm event. The report must include:

- 1. Field sampling results and inspections, including:
 - 1.1. Analytical methods, reporting units, and detection limits
 - 1.2. Date, location, time of sampling, visual observations, and measurements
 - 1.3. Quantity of precipitation from the storm event
- 2. Description of the WPC practices and corrective actions

13-3.01C(2)(b)(vi)(D)-13-3.01C(2)(b)(vi)(F) Reserved

13-3.01C(2)(b)(vii)-13-3.01C(2)(b)(x) Reserved

13-3.01C(3) Reserved

13-3.01C(4) Stormwater Annual Report

Submit your stormwater annual report before July 15th for the preceding construction period from July 1st through June 30th or 30 days before Contract acceptance if construction ends before June 30th.{ XE "Stormwater pollution prevention plan:stormwater annual report" }

The stormwater annual report must include:

- 1. Project information, such as a description of the project and work locations
- 2. Stormwater monitoring information, including:
 - 2.1. Summary and evaluation of sampling and analysis results and laboratory reports
 - 2.2. Analytical methods, reporting units, and detections limits for analytical parameters
 - 2.3. Summary of the corrective actions taken
 - 2.4. Identification of the corrective actions taken and compliance activities not implemented
 - 2.5. Summary of violations
 - 2.6. Names of the individuals performing stormwater inspections and sampling
 - 2.7. Logistical information for inspections and sampling, including location, date, time, and precipitation
 - 2.8. Visual observations and sample collection records
- 3. Documentation of training for individuals responsible for:
 - 3.1. Permit compliance
 - 3.2. Installation, inspection, maintenance, and repair of WPC practices
 - 3.3. Development and revision of the SWPPP
- 4. WPC Manager's signature

Allow 10 days for review. If revisions are required, the Engineer notifies you of the date the review stopped and provides comments.

Submit a revised report within 5 business days of receiving the comments. The Department's review resumes when a complete report has been resubmitted.

13-3.01D Quality Assurance

13-3.01D(1) General

Reserved

13-3.01D(2) Regulatory Requirements

Except for a project in the Lake Tahoe Hydrologic Unit or on federal or tribal lands, discharges of stormwater from the project must comply with NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order No. 2022-0057-DWQ, NPDES No. CAS000002) referred to herein as *Permit*.

For a project in the Lake Tahoe Hydrologic Unit, discharges of stormwater from the project must comply with the NPDES General Permit for General Waste Discharge Requirements and National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction Activity in the Lake Tahoe Hydrologic Unit, Counties of Alpine, El Dorado, and Placer. You may view the General Permit for the Lake Tahoe Hydrologic Unit at the Storm Water Program page of the Lahontan RWQCB website.

A project on federal or tribal lands must comply with the permit issued by the US EPA for National Pollutant Discharge Elimination System General Permit for Discharges from Construction Activities. This permit governs stormwater and nonstormwater discharges from work activities at the job site. This permit may be viewed at the US EPA website.

13-3.01D(3) Sampling

13-3.01D(3)(a) General

Assign trained personnel to collect samples. The personnel must comply with the equipment manufacturer's instructions for the collection of samples, analytical methods, and equipment calibration.

Samples taken for laboratory analysis must comply with water quality sampling procedures and be analyzed by a State-certified laboratory under 40 CFR part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants*.

For a risk level 2 or risk level 3 project, take samples for pH and turbidity from representative and accessible locations upstream and downstream of each discharge point. Sample run-on from surrounding areas if there is a reason to believe run-on may contribute to an NAL or NEL exceedance.

13-3.01D(3)(b) Numeric Action Levels

For a risk level 2 or risk level 3 project, test the sample at each discharge location. For projects with dewatering activities, test each dewatering discharge location within the first hour of discharge and daily for continuous dewatering discharges. The test methods and detection limits for the NALs{ XE "Stormwater pollution prevention plan:numeric action level" }{ XE "Numeric action level" } are shown in the following table:

Quality characteristic	Test Method	Detection limit (min)	NAL
Turbidity (max, NTU)	Field test with calibrated portable instrument	1	250
рН	Field test with calibrated portable instrument	0.2	6.5–8.5

If dewatering discharge NALs are exceeded, cease dewatering discharges.

13-3.01D(3)(c) Receiving-Water Monitoring Triggers

For a risk level 3 project, test the receiving water under the test methods and at the detection limits for the monitoring triggers shown in the following table:

Quality characteristic	Test method	Detection limit (min)	Monitoring trigger
Turbidity (max, NTU)	Field test with calibrated portable instrument	1	500
pН	Field test with calibrated portable instrument	0.2	6.0–9.0

Collect a minimum of 1 upstream receiving water sample from an accessible and safe location that is representative of the receiving water, as close as possible to the discharge location, and upstream from the discharge location. Collect a minimum of 1 downstream receiving water sample from an accessible and safe location that is representative of the receiving water, as close as possible to the discharge location and safe location that is representative of the receiving water, as close as possible to the discharge location and safe location that is representative of the receiving water, as close as possible to the discharge location and downstream from the discharge location. Collect samples once every 24-hour period of the storm event at each discharge location where discharge has occurred. Analyze the sample for the parameter that triggered the receiving water monitoring, including either pH or turbidity, or both.

13-3.01D(3)(d) TMDL Compliance

Projects with TMDL-related pollutants are specified in Attachment H of the Permit. Look up your project location in Attachment H to determine if TMDL requirements apply. Test the sample at each discharge location under the test method and at the detection limits for the NAL and NELs listed in Attachment H of the Permit.

13-3.01D(4) Water Quality Control

Collect water samples:{ XE "Stormwater pollution prevention plan:stormwater sampling and analysis day" }

- 1. During an observed nonvisible pollutant triggering condition for:
 - 1.1. Each nonvisible pollutant source at each hydraulically down-gradient discharge location
 - 1.2. A corresponding uncontaminated control sample
- 2. During a storm event for:
 - 2.1. Each nonvisible pollutant source and a corresponding uncontaminated control sample
 - 2.2. Turbidity, pH, and other constituents as required
 - 2.3. All discharge locations for risk level 2 or risk level 3 project

Collect samples for each 24-hour period of a storm event resulting in a discharge. Nonvisible pollutant sampling can end before the end of the storm event if corrective actions are completed prior to further discharge of the pollutant.

Collect samples during (1) normal working hours and (2) within 8 hours of each nonvisible pollutant triggering condition as listed in the Sampling and Analysis Plan for Nonvisible Pollutants section. Samples do not need to be collected during dangerous weather conditions, such as flooding or electrical storms.

Collect receiving water samples for a risk level 3 project and if a direct discharge to receiving waters occurs.

If a downstream sample shows an increased level of turbidity, pH, or other constituent, assess WPC practices, site conditions, and surrounding influences to determine the probable cause for the increase.

You may request or the Engineer may order laboratory analysis of stormwater samples. If ordered, laboratory analysis of stormwater samples is change order work.

13-3.01D(5) Training

For project managers, supervisory personnel, subcontractors, and employees that are assistant WPC managers involved in WPC work:

- 1. Provide stormwater training for:
 - 1.1. SWPPP roles and responsibilities
 - 1.2. Forecast information
 - 1.3. Documentation and reporting procedures
- 2. Provide site-specific training for:
 - 2.1. Visual inspections
 - 2.2. Sampling procedures
 - 2.3. SWPPP and WPC implementation activities relevant to the assistant WPC manager's assigned responsibilities

13-3.01D(6) Responsibilities

Before assigning an assistant WPC manager, the WPC manager must ensure the assistant WPC manager has a competent understanding of the following WPC work:

- 1. Visual inspections
- 2. Sampling procedures
- 3. SWPPP and WPC implementation tasks

The assistant WPC manager must record and report issues to the QSP within 24-hours of a WPC corrective action. The assistant WPC manager must follow the QSP Delegate requirements detailed in the Permit.

13-3.02 MATERIALS

Not Used

13-3.03 CONSTRUCTION

Post a sign or other notice at a safe, publicly accessible location close to the job site. The notice must include the Waste Discharge ID number and a contact name and phone number for obtaining additional project information. Locate the sign or notice such that it is visible from the part of the highway nearest the work activities.

Obtain, install, and maintain a rain gauge at the job site. Observe and record precipitation daily.

Continue SWPPP implementation during any suspension of work activities.

Notify the Engineer at least 32-hours in advance of dewatering activity discharges.

A current copy of the SWPPP must be available onsite. Maps must be printed in full size. The remainder of the SWPPP may be kept in electronic format.

13-3.04 PAYMENT

Payment will be prorated over the life of the contract.

Payment for sampling is included in the payment for during- and post-storm event inspection.

The Department does not pay for the preparation, collection, laboratory analysis, and reporting of stormwater samples for nonvisible pollutants if WPC practices are not implemented before precipitation or if you fail to correct a WPC practice before precipitation.

The Department pays \$3,000 for each authorized stormwater annual report.

The Department does not adjust the unit price for an increase or decrease in the quantity of:

- 1. Stormwater annual report
- 2. Pre-storm event inspection report
- 3. During- and post-storm inspection report
- 4. Notice of termination report

13-4 JOB SITE MANAGEMENT

13-4.01 GENERAL

13-4.01A Summary

Section 13-4 includes specifications for performing job site management work.{ XE "Job site management" }

Job site management work includes spill prevention and control, material management, waste management, nonstormwater management, and dewatering activities.

Temporary linear sediment barriers must comply with section 13-10.

13-4.01B Definitions

- **minor spill:** Spill of oil, gasoline, paint, or other materials in such small quantities that can easily be controlled by a first responder upon discovery of the spill.
- **semi-significant spill:** Spill of oil, gasoline, paint, or other materials in quantities that can be controlled by a first responder with help from other personnel.
- **significant or hazardous spill:** Spill of oil, gasoline, paint, or other materials in quantities that cannot be controlled by job site personnel.

13-4.01C Submittals

At least 15 days before the start of dewatering activities, submit a dewatering and discharge work plan. The dewatering and discharge work plan must include:

- 1. Title sheet and table of contents
- 2. Description of dewatering and discharge activities detailing the locations, quantity of water, equipment, and discharge point
- 3. Estimated schedule for dewatering and the discharge start and end dates of intermittent and continuous activities
- 4. Discharge alternatives, such as dust control or percolation
- 5. Visual monitoring procedures with inspection log
- 6. Copy of the approval to discharge into a sanitary sewer system

For material used or stored within the job site, submit the following documents as informational submittals:

- 1. SDS at least 5 business days before material is used or stored
- 2. Monthly inventory records

Submit approval from the local health agency, city, county, and sewer district before discharging from a sanitary or septic system directly into a sanitary sewer system.

Submit a discharge notification upon discovery of a spill or discharge of materials into a body of water.

13-4.01D Quality Assurance

Reserved

13-4.02 MATERIALS

Not Used

13-4.03 CONSTRUCTION

13-4.03A General

Implement effective housekeeping practices for handling, storing, using, and disposing of materials to prevent pollution. Limit potential pollutants at their source before they come in contact with stormwater.

13-4.03B Spill Prevention and Control

13-4.03B(1) General

Keep material or waste storage areas clean, well organized, and equipped with enough cleanup supplies for the material being stored.

Implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site. If there is a spill or equipment or materials leak chemicals or hazardous substances at the job site, you are responsible for all associated cleanup costs and related liability.

Prevent spills from entering stormwater runoff before and during cleanup activities. Do not bury the spill or wash it with water.

Immediately report spills to the WPC manager.

As soon as it is safe, contain and clean up spills of petroleum materials and sanitary and septic waste substances listed in 40 CFR, parts 110, 117, and 302. Comply with section 14-11 for a spill or leak that produces hazardous waste.

13-4.03B(2) Minor Spills

Clean up a minor spill as follows:

- 1. Contain the spread of the spill.
- 2. Recover the spilled material using absorbents.
- 3. Clean the contaminated area.
- 4. Promptly dispose of the contaminated material and absorbents.

13-4.03B(3) Semi-significant Spills

Immediately clean up a semi-significant spill as follows:

- 1. Contain the spread of the spill.
- 2. On a paved or other impervious surface, encircle and recover the spilled material with absorbents.
- 3. On soil, construct an earthen dike and dig up the contaminated soil for disposal.
- 4. During precipitation, cover the spill with 10-mil plastic sheeting or other material to prevent contamination of the runoff.
- 5. Promptly dispose of the contaminated material and absorbents.

13-4.03B(4) Significant or Hazardous Spills

Immediately notify the Engineer and qualified personnel of a significant or hazardous spill. Handle the spill as follows:

- 1. Do not attempt to clean up the spill until qualified personnel have arrived.
- 2. Obtain the immediate services of a spill contractor or hazardous material team.

- 3. Notify local emergency response teams by dialing 911 and county officials by using the emergency phone numbers retained at the job site.
- 4. Notify the California State Warning Center at (800) 852-7550.
- 5. Notify the National Response Center at (800) 424-8802 regarding spills of Federal reportable quantities under 40 CFR 110, 117, and 302.
- 6. Notify other agencies as appropriate, including:
 - 6.1. Fire department
 - 6.2. Public works department
 - 6.3. US Coast Guard
 - 6.4. California Highway Patrol
 - 6.5. City police or county sheriff's department
 - 6.6. DTSC
 - 6.7. Department of Conservation, Division of Oil, Gas, and Geothermal Resources
 - 6.8. Cal/OSHA
 - 6.9. RWQCB

13-4.03B(5)-13-4.03B(6) Reserved

13-4.03C Material Management

13-4.03C(1) General

Minimize or eliminate discharge of material into the air, storm drain systems, and receiving waters while taking delivery of, using, or storing the following materials:

- 1. Hazardous chemicals, including acids, lime, glues, adhesives, paints, solvents, and curing compounds
- 2. Soil stabilizers and binders
- 3. Fertilizers
- 4. Detergents
- 5. Plaster
- 6. Petroleum materials, including fuel, oil, and grease
- 7. Asphalt and concrete components
- 8. Pesticides and herbicides

Employees trained in emergency spill cleanup procedures must be present during the unloading of hazardous materials or chemicals.

Minimize the use of hazardous materials if practicable.

Perform each of the following activities at least 100 feet from a concentrated flow of stormwater, a drainage course, or an inlet wherever it is performed (1) within the floodplain or (2) at least 50 feet outside the floodplain:

- 1. Stockpiling materials
- 2. Storing pile-driving equipment and liquid waste containers
- 3. Washing vehicles and equipment in outside areas
- 4. Fueling and maintaining vehicles and equipment

13-4.03C(2) Material Storage

Store materials in their original containers with the original labels maintained in legible condition. Immediately replace damaged or illegible labels.

Comply with section 14-11.03 for the storage of liquids, petroleum materials, and substances listed in 40 CFR 110, 117, and 302.

Store bagged or boxed material on pallets. Protect bagged or boxed material from wind and rain during non–working days and whenever precipitation is forecasted.

13-4.03C(3) Stockpile Management

Minimize stockpiling of materials at the job site.

Do not allow soil, sediment, or other debris from stockpiles to enter storm drains, open drainages, or watercourses.

Manage stockpiles by implementing WPC practices on:

- 1. Active stockpiles before a forecasted storm event
- 2. Inactive stockpiles according to the WPCP or SWPPP schedule

Cover active and inactive soil stockpiles with soil stabilization material or a temporary cover and surround them with a linear sediment barrier.

Cover stockpiles of concrete and asphalt concrete rubble, HMA, AB, or AS with a temporary cover and surround them with a linear sediment barrier.

Place stockpiles of pressure-treated wood on pallets and cover them with an impermeable material.

Place stockpiles of cold mix asphalt concrete on an impervious surface and cover them with an impermeable material. Protect the stockpile from stormwater run-on and runoff.

Repair or replace linear sediment barriers and covers as needed to keep them functioning properly. If sediment accumulates to 1/3 of the linear sediment barrier's height, remove the accumulated sediment.

13-4.03C(4)–13-4.03C(6) Reserved 13-4.03D Waste Management

13-4.03D(1) General

Manage solid waste under section 14-10.

Manage hazardous waste under section 14-11.

13-4.03D(2) Paint Waste

Clean water-based and oil-based paint from brushes or equipment within a contained area to prevent contamination of soil, receiving waters, or storm drain systems. Handle and dispose of paints, thinners, solvents, residues, and sludges that cannot be recycled or reused as hazardous waste under section 14-11. When thoroughly dry, dispose of dry latex paint, paint cans, used brushes, rags, absorbent materials, and drop cloths as solid waste under section 14-10.

13-4.03D(3) Concrete Waste

Prevent the discharge of concrete and asphalt concrete waste into storm drain systems and receiving waters.

Collect concrete waste simultaneously with the waste-producing activity. Concrete waste includes grout, dust, debris, residue, and slurry from demolition, saw cutting, coring, grooving, or grinding activities.

Dispose of liquid residue from concrete grooving or grinding activities at an appropriately permitted disposal facility.

If authorized, liquid grooving or grinding residue may be transported to a contractor-support facility for drying.

13-4.03D(4) Sanitary and Septic Waste

Do not bury or discharge wastewater from a sanitary or septic system within the highway. A sanitary facility discharging into a sanitary sewer system must be properly connected and free from leaks. Place a portable sanitary facility at least 50 feet away from storm drains, receiving waters, and flow lines. Provide secondary containment.

Comply with local health agency regulations if using an on-site disposal system.

13-4.03D(5) Liquid Waste

Prevent job-site liquid waste from entering storm drain systems and receiving waters. Liquid wastes include:

1. Drilling slurries or fluids

- 2. Grease- and oil-free wastewater and rinse water
- 3. Dredgings, including liquid waste from cleaning drainage systems
- 4. Liquid waste running off a surface, including wash and rinse water
- 5. Other nonstormwater liquids not covered by separate permits

Store liquid waste in structurally sound, leak-proof containers, such as roll-off bins or portable tanks.

Provide enough liquid waste containers with enough volume to prevent overflow, spills, and leaks.

Store containers at least 50 feet from moving vehicles and equipment.

Remove and dispose of deposited solids from sediment traps under section 14-10 unless another method is authorized.

Liquid waste may require testing to determine hazardous material content before disposal.

Dispose of drilling fluids and residue.

If an authorized location is available within the job site, fluids and residue exempt under 23 CA Code of Regs § 2511(g) may be dried by evaporation in a leak-proof container. Dispose of the remaining solid waste under section 14-10.

13-4.03D(6)-13-4.03D(8) Reserved

13-4.03E Nonstormwater Management

13-4.03E(1) General

Use water for work activities such that erosion and the discharge of pollutants into storm drain systems and receiving waters are prevented. Obtain authorization before washing anything at the job site with water that could discharge into a storm drain system or receiving waters. Immediately report discharges.

Sweep and vacuum paved areas. Do not wash paved areas with water.

Direct runoff water, including water from the repair of a water line, from the job site to areas where it can infiltrate into the ground. Do not allow spilled water to escape the areas used to fill water trucks. Manage run-on to minimize contact with job site water.

13-4.03E(2) Illegal Connection and Illicit Discharge Detection and Reporting

Before starting work and daily thereafter, inspect the job site and its perimeter for the following evidence of illegal connections, illicit discharges, and illegal dumping:

- 1. Debris or trash piles
- 2. Staining or discoloration on pavement or soils
- 3. Pungent odors coming from drainage systems
- 4. Discoloration or an oily sheen on water
- 5. Stains and residue in ditches, channels, or drain boxes
- 6. Abnormal water flow during dry weather
- 7. Excessive sediment deposits
- 8. Nonstandard drainage junction structures
- 9. Broken concrete or other disturbances at or near junction structures

If evidence of an illegal connection, discharge, or dumping is discovered, immediately notify the Engineer. Do not take further action unless ordered. Assume that unlabeled or unidentifiable material is hazardous.

13-4.03E(3) Vehicle and Equipment Cleaning

Limit vehicle and equipment cleaning or washing at the job site except for the safety and protection of the equipment and as needed to comply with PLACs. Notify the Engineer before cleaning vehicles and equipment at the job site with soap, solvents, or steam. Contain and recycle or dispose of resulting waste under section 14-11 or section 13-4.03D(5), whichever is applicable. Do not use diesel to clean vehicles or equipment. Minimize the use of solvents.

Clean or wash vehicles and equipment in a structure equipped with disposal facilities. Vehicles may be washed in an outside area if the area is:

- 1. Paved with concrete or asphalt concrete
- 2. Surrounded by a containment berm
- 3. Equipped with a sump to collect and dispose of wash water

Use as little water as practicable when washing vehicles and equipment. Hoses must be equipped with a positive shutoff valve.

Discharge the liquid from wash racks to a recycling system or to another authorized system. Remove liquids and sediment as necessary.

13-4.03E(4) Vehicle and Equipment Fueling and Maintenance

If practicable, perform maintenance on vehicles and equipment off-site.

If fueling or maintenance must be performed at the job site, obtain authorization for an assigned area or areas for these activities before using them. Minimize mobile fueling and maintenance activities. Perform fueling and maintenance activities on level ground in areas protected from stormwater run-on and runoff.

Use containment berms or dikes around fueling and maintenance areas. Keep enough absorbents and spill kits in the fueling or maintenance area and on fueling trucks to handle potential spills. Dispose of spill-cleanup material and kits immediately after use. Use drip pans or absorbent pads during fueling or maintenance.

Do not leave fueling or maintenance areas unattended during fueling and maintenance activities. Fueling nozzles must be equipped with (1) an automatic shutoff control and (2) vapor recovery where required by the Air Quality Management District. Secure nozzles in an upright position when not in use. Do not top off fuel tanks.

Recycle or properly dispose of used batteries and tires.

If leaks cannot be repaired immediately, remove the vehicle or equipment from the job site.

13-4.03E(5) Material and Equipment Used Over Water

Place drip pans and absorbent pads under vehicles and equipment used over water. Keep enough spillcleanup material with the vehicles and equipment to handle potential spills. Place drip pans or plastic sheeting under vehicles and equipment on docks, barges, or other surfaces over water whenever the vehicles or equipment will be idle for more than 1 hour.

Install watertight curbs or toe boards on barges, platforms, docks, or other surfaces over water to contain material, debris, and tools. Secure any material or debris to prevent spills or discharge into the water due to wind.

Report discharges to receiving waters immediately upon discovery.

13-4.03E(6) Structure Removal Over or Adjacent to Water

Do not allow demolished material to enter storm drain systems and receiving waters. Use authorized covers and platforms to collect debris. Use attachments on equipment to catch debris during small demolition activities. Empty debris-catching devices daily and handle debris under section 13-4.03D.

13-4.03E(7) Paving, Sealing, Saw Cutting, Grooving, and Grinding Activities

Prevent the following materials from entering storm drain systems and receiving waters:

- 1. Cementitious material
- 2. Asphaltic material
- 3. Aggregate or screenings
- 4. Saw cutting, grooving, and grinding residue
- 5. Pavement chunks
- 6. Shoulder backing
- 7. Methacrylate resin
- 8. Sandblasting residue

Cover drainage inlets and use linear sediment barriers to protect downhill receiving waters until paving, saw cutting, grooving, and grinding activities are completed and excess material has been removed. Cover drainage inlets and manholes during the application of seal coat, tack coat, slurry seal, or fog seal.

Whenever precipitation is forecasted, limit paving, saw cutting, and grinding to places where runoff can be captured.

Do not start seal coat, tack coat, slurry seal, or fog seal activities when precipitation is forecasted during the application and curing period.

Do not grind or groove pavement during precipitation.

Use a vacuum to remove slurry immediately after it is produced. Do not allow the slurry to run onto lanes open to traffic or off the pavement.

Collect the residue from grooving and grinding activities with a vacuum attachment on the grinding machine. Do not leave the residue on the pavement or allow it to flow across the pavement.

You may stockpile material removed from existing roadways under section 13-4.03C(3) if authorized.

Do not coat asphalt trucks and equipment with substances that contain soap, foaming agents, or toxic chemicals.

When paving equipment is not in use, park the paving equipment over drip pans or plastic sheeting with absorbent material to catch drips.

13-4.03E(8) Thermoplastic Striping and Pavement Markers

Do not preheat, transfer, or load thermoplastic within 50 feet of drainage inlets or receiving waters.

Do not unload, transfer, or load bituminous material for pavement markers within 50 feet of drainage inlets or receiving waters.

Collect and dispose of bituminous material from the roadway after removing markers.

13-4.03E(9) Pile Driving

Keep spill kits and cleanup materials at pile driving locations. Park pile driving equipment over drip pans, absorbent pads, or plastic sheeting with absorbent material. Protect pile driving equipment by parking it on plywood and covering it with plastic if precipitation is forecasted.

Store pile driving equipment on level ground and protect it from stormwater run-on when not in use. Use vegetable oil instead of hydraulic fluid if practicable.

13-4.03E(10) Concrete Curing

Do not overspray chemical curing compounds. Minimize the drift by spraying as close to the concrete as practicable. Do not allow runoff of curing compounds. Cover drainage inlets before applying the curing compound.

Minimize the use and discharge of water by using wet blankets or similar methods to maintain moisture when concrete is curing.

13-4.03E(11) Concrete Finishing

Collect and dispose of (1) water and solid waste from high-pressure water blasting and (2) sand and solid waste from sandblasting. Before sandblasting, cover drainage inlets within 50 feet of the sandblasting. Minimize the drift of dust and blast material by keeping the nozzle close to the surface of the concrete. If the character of the blast residue is unknown, test for hazardous materials and dispose of it.

Inspect the containment structures for concrete-finishing waste for damage before each day of use and before forecasted precipitation. Remove the liquid and solid waste from the containment structures after each work shift.

13-4.03E(12)-13-4.03E(15) Reserved

13-4.03F Sweeping

Sweep by hand or mechanical methods, such as vacuuming. Do not use mechanical kick brooms.

Sweep paved roads at construction entrance and exit locations and paved areas within the job site:

- 1. During clearing and grubbing activities
- 2. During earthwork activities
- 3. During trenching activities
- 4. During pavement-structure construction activities
- 5. When vehicles are entering and leaving the job site
- 6. After soil-disturbing activities
- 7. After observing off-site tracking of material

Monitor paved areas and roadways within the project. Sweep within:

- 1. 1 hour if sediment or debris is observed during activities requiring sweeping
- 2. 24 hours if sediment or debris is observed during activities not requiring sweeping

Remove collected material, including sediment, from paved shoulders, drain inlets, curbs and dikes, and other drainage areas. You may stockpile collected material at the job site. Dispose of collected material at least once per week if stockpiled.

Sediment collected during sweeping activities may be disposed of within the job site. Protect the disposal areas against erosion.

Keep dust to a minimum during street sweeping activities. Use water or a vacuum whenever dust generation is excessive or sediment pickup is ineffective.

13-4.03G Dewatering

Dewatering consists of discharging accumulated stormwater, groundwater, or surface water from excavations or temporary containment facilities.

Perform dewatering work as specified for the work items involved, such as a temporary ATS or dewatering and discharge.

If dewatering and discharging activities are not specified for a work item and you perform dewatering activities:

- 1. Conduct dewatering activities under the Department's Field Guide for Construction Site Dewatering.
- 2. Ensure any dewatering discharge does not cause erosion, scour, or sedimentary deposits that could impact natural bedding materials.
- 3. Discharge the water within the project limits. Dispose of the water if it cannot be discharged within project limits due to site constraints or contamination.
- 4. Do not discharge stormwater or nonstormwater that has an odor, discoloration other than sediment, an oily sheen, or foam on the surface. Immediately notify the Engineer upon discovering any such condition.
- 5. Utilize an outlet structure to withdraw water from the surface of sediment basins or similar impoundments.

13-4.03H-13-4.03J Reserved

13-4.04 PAYMENT

Not Used

13-5 TEMPORARY SOIL STABILIZATION

13-5.01 GENERAL

Section 13-5 includes specifications for placing temporary soil stabilization materials.{ XE "Temporary soil stabilization" }

Move-in and move-out for temporary erosion control includes:

- 1. Moving onto the job site when the Engineer determines an area is ready to receive temporary soil stabilization materials
- 2. Setting up all required personnel and equipment
- 3. Moving out all personnel and equipment when work in that area is complete

13-5.02 MATERIALS

13-5.02A General

Tackifier, fiber, seed, and straw must comply with the specifications for the same materials in section 21-2.02 except section 21-2.01 does not apply.

Fiber for temporary hydraulic mulch, tacked straw, and hydroseed must be at least 50 percent wood fiber. The remaining percentage must be cellulose fiber, alternate fiber, or a combination of these fibers.

13-5.02B Erosion Control Blankets

An erosion control blanket must comply with the specifications for RECPs in section 21-2.020 except section 21-2.01 does not apply.

An erosion control blanket classified as long-term and nondegradable must be Class 8 RSP fabric.

13-5.02C Temporary Mulch

Temporary mulch must comply with the specifications for wood mulch in section 20.

13-5.02D Cementitious Binder

Cementitious binder must be:

- 1. Calcium sulfate hemihydrate
- 2. At least 85 percent pure
- 3. Functional for at least 365 days
- 4. Miscible with water and fiber
- 5. Nontoxic to aquatic organisms
- 6. Free from growth or germination-inhibiting factors
- 7. Nonflammable

13-5.02E Soil Binder

Soil binder must comply with the material specifications for tackifier.

13-5.02F Temporary Covers

A temporary cover must be a geosynthetic temporary cover, plastic sheeting, or a combination of both.

Plastic sheeting must be a 10-mil-thick, single-ply geomembrane material complying with ASTM D2103.

Restrainers for securing the cover fabric or plastic sheeting to a slope's surface must be one of the following types:

- 1. Gravel-filled bags roped together and spaced not more than 6 feet apart.
- 2. Wooden board and steel restrainer. The wooden board must be 2 by 4 inches, 8 feet long, and made from fir or pine. Steel reinforcing bars must be spaced not more than 4 feet apart along the wooden board.
- 3. Other authorized type.

Rope must be at least 3/8 inch in diameter and be biodegradable or nondegradable. Biodegradable rope must be made from sisal, manila, or other natural fiber. Nondegradable rope must be made from nylon, polypropylene, or other geosynthetic fiber.

The linear sediment barrier must comply with section 13-10.

13-5.02G Gravel-Filled Bags

A gravel-filled bag must:

- 1. Be a geosynthetic bag
- 2. Have inside dimensions from 24 to 32 inches long and from 16 to 20 inches wide
- 3. Have a bound opening sewn with yarn, bound with wire, or secured with a closure device
- 4. Weigh from 30 to 50 pounds when filled with gravel

Gravel for a gravel-filled bag must be from 3/8 to 3/4 inch in diameter and must be clean and free of clay balls, organic matter, and other deleterious materials.

13-5.02H-13-5.02J Reserved

13-5.03 CONSTRUCTION

13-5.03A General

The Engineer authorizes the areas to receive soil stabilization materials by approving the placement of stakes or other suitable markers in increments of 1 ac or less.

Place temporary soil stabilization material within 24 hours after an area is ready to receive the material or before a forecasted storm event. Do not use a hydraulically applied material whenever:

- 1. Precipitation occurs
- 2. Water is standing on or moving across the soil surface
- 3. Soil is frozen
- 4. Air temperature is below 40 degrees F during the tackifier's curing period unless allowed under the tackifier manufacturer's instructions and authorized

13-5.03B Temporary Erosion Control Blankets

Place a temporary erosion control blanket as specified for RECPs in section 21-2.030.

13-5.03C Temporary Mulch

Spread temporary mulch as specified for spreading wood mulch in section 20.

If an application rate is not shown, spread mulch to a uniform thickness of 2 inches.

13-5.03D Temporary Hydraulic Mulch

Apply temporary hydraulic mulch as specified for hydromulch in section 21-2.03D.

If application rates are not shown, apply temporary hydraulic mulch at the following rates:

- 1. Fiber at 2,000 lb/ac
- 2. Tackifier under the manufacturer's instructions for the slope, soil, and wind conditions

13-5.03E Temporary Bonded Fiber Matrix Hydraulic Mulch

Apply temporary bonded fiber matrix hydraulic mulch as specified for bonded fiber matrix in section 21-2.03H.

If an application rate is not shown, apply temporary bonded fiber matrix hydraulic mulch at the rate of 3,500 lb/ac.

13-5.03F Reserved

13-5.03G Temporary Cementitious Binder Hydraulic Mulch

Apply temporary cementitious binder hydraulic mulch as specified for hydromulch in section 21-2.03D.

If application rates are not shown, apply temporary cementitious binder hydraulic mulch at the following rates:

- 1. Fiber at 2,000 lb/ac
- 2. Cementitious binder at 4,000 lb/ac

13-5.03H Temporary Tacked Straw

Apply temporary tacked straw as specified for straw in section 21-2.03G.

If application rates are not shown, apply temporary tacked straw at the following rates:

- 1. Straw at 2.0 tons/ac
- 2. Fiber at 2,000 lb/ac
- 3. Tackifier at the manufacturer's instructed rate for the slope, soil, and wind conditions

13-5.03I Temporary Hydroseed

Apply temporary hydroseed as specified for hydroseed in section 21-2.03D.

If application rates are not shown for fiber and tackifier, apply temporary hydroseed at the following rates:

- 1. Seed at the rate shown
- 2. Fiber at 2,000 lb/ac
- 3. Tackifier at the manufacturer's instructed rate for the slope, soil, and wind conditions

13-5.03J Temporary Soil Binder

Apply temporary soil binder as specified for hydromulch in section 21-2.03D.

If application rates are not shown, apply temporary soil binder at the manufacturer's instructed rate for the slope, soil, and wind conditions.

13-5.03K Temporary Covers

Install temporary-cover fabric as follows:

- 1. Place the fabric:
 - 1.1. Loosely on the slope with the longitudinal edges perpendicular to the slope contours
 - 1.2. On the upper portion of the slope to overlap the fabric on the lower portion of the slope
 - 1.3. On the side facing the prevailing wind to overlap the fabric on the downwind side of the slope
- 2. Anchor the perimeter edge of the fabric in key trenches.
- 3. Overlap the edges of the fabric by at least 2 feet.
- 4. Place restrainers at the overlap area and along the toe of the slope. Space the restrainers a maximum of 8 feet on center between the overlaps.
- 5. If anchor restraints are used, ensure that the leg of the steel reinforcing bar pierces the fabric and holds the wooden lath firmly against the surface of the slope.

Install a temporary linear sediment barrier to protect excavation and embankment slopes from run-on and concentrated flows of stormwater. Place the barrier parallel with the slope contour at the toe of the slope. Angle the last 6 feet of the barrier upslope at the downhill end of the run.

If a temporary cover is removed to perform other work, replace and resecure it within 1 hour of stopping work.

Maintain a temporary cover to minimize the exposure of slopes and prevent material movement beyond the linear sediment barrier.

Relocate and secure restrainers to keep the temporary cover in place. If a temporary cover breaks free, immediately resecure it.

Repair or replace a temporary cover if any of the following occurs:

- 1. Covered area becomes exposed or exhibits visible erosion
- 2. Erosion occurs between the joints or beneath the linear sediment barrier
- 3. Temporary cover becomes detached, torn, or unraveled

13-5.03L-13-5.03N Reserved

13-5.04 PAYMENT

The payment quantity for temporary soil stabilization bid items paid for by the area is the area measured parallel with the ground surface not including the additional quantity used for overlaps.

The Department determines the cost for maintaining soil stabilization measures under section 9-1.04 and pays you 1/2 of that cost.

13-6 TEMPORARY SEDIMENT CONTROL

13-6.01 GENERAL

Section 13-6 includes specifications for installing temporary sediment control.{ XE "Temporary sediment control" }

Temporary linear sediment barriers must comply with section 13-10.

13-6.02 MATERIALS

13-6.02A General

An erosion control blanket must comply with section 21-2.02O(4) except section 21-2.01 does not apply.

Fiber rolls, compost socks, rope, stakes, gravel-filled bags, and foam barriers must comply with section 13-10.02.

13-6.02B Rigid Plastic Barriers

A rigid plastic barrier must:

- 1. Have an integrated filter
- 2. Have a formed outer jacket of perforated HDPE or polyethylene terephthalate
- 3. Have a flattened tubular-shaped cross section
- 4. Be made from virgin or recycled materials
- 5. Be free of biodegradable filler materials that degrade the physical or chemical characteristics of the completed filter core or outer jacket
- 6. Have a length of at least 4 feet per unit
- 7. Have the ability to interlock separate units into a long barrier such that water does not flow between the units
- 8. Comply with the requirements shown in the following table:

Quality characteristic	Test method	Requirement
Grab tensile strength of outer jacket material (min, lb/sq in	ASTM D4632 ^a	4,000
each direction)		
Break strength of outer jacket (lb/sq in)	ASTM D4632 ^a	1,300
Permittivity of filter core (min, 1/sec)	ASTM D4491	0.38
Flow rate of filter core (gpm per sq ft)	ASTM D4491	100-200
Filter core aperture size (max, microns)		425
UV stability of outer jacket and filter core		
(min, percent tensile strength after 500 hours, xenon-arc	ASTM D4355	90
lamp and water spray weathering method)		

^aYou may use other appropriate test method for the specific polymer.

For an inlet with a curb opening but no grate, the rigid plastic barrier must be sized to fit the opening and have:

- 1. Horizontal flap of at least 6 inches with an under-seal gasket to prevent underflows
- 2. High-flow bypass
- 3. Vertical height of at least 7 inches after installation

For a grated inlet without a curb opening, the rigid plastic barrier must be sized to fit the inlet and:

- 1. Cover the grate by at least 2 inches on each side and have an under-seal gasket to prevent underflows
- 2. Have a high-flow bypass
- 3. Have a vertical height of at least 1.5 inches after installation

For a grated inlet with a curb opening, the rigid plastic barrier must be sized to fit and have:

- 1. Horizontal flap that covers the grate by at least 2 inches on the 3 sides away from the curb opening and must have an under-seal gasket to prevent underflows
- 2. High-flow bypass
- 3. Section that covers at least 5 inches vertically above the flow line of the curb opening after installation

13-6.02C Sediment Filter Bags

Each sediment filter bag must be sized to fit the catch basin or drainage inlet and have a high-flow bypass.

A sediment filter bag may include a metal frame. If the sediment filter bag does not have a metal frame and is deeper than 18 inches, it must include lifting loops, dump straps, and a restraint cord to keep the sides of the bag away from the walls of the catch basin.

13-6.02D-13-6.02F Reserved

13-6.03 CONSTRUCTION

13-6.03A General

Remove sediment deposits if the sediment exceeds 1 inch in depth from the surface of an erosion control blanket.

Remove sediment from a Type 2 sediment trap of a temporary inlet if the volume has been reduced by approximately 1/2.

Remove sediment from a sediment filter bag if it becomes full or if the restraint cords are no longer visible. Empty a sediment filter bag:

- 1. Without a metal frame by placing no. 8 steel reinforcing bars through the lifting loops and lifting the filled bag from the drainage inlet
- 2. With a metal frame by lifting the metal frame from the drainage inlet

Rinse the sediment filter bag before replacing it at the drainage inlet. Do not allow the rinse water to enter a drainage inlet or waterway.

If the removed sediment is placed within the job site, stabilize the sediment deposits to prevent erosion.

13-6.03B Temporary Check Dams

Before placing a temporary check dam, remove obstructions, including rocks, clods, and debris greater than 1 inch in diameter from the ground.

If a temporary check dam is to be placed in the same area as an erosion control blanket, install the blanket before placing the dam.

Place a temporary check dam approximately perpendicular to the centerline of the ditch or drainage line. Install the dam with enough spillway depth to prevent flanking of a concentrated flow around its ends. Install a Type 1 or Type 2 dam if the ditch is unlined and a Type 2 dam if the ditch is lined with concrete or asphalt concrete.

For a Type 1 temporary check dam:

- 1. Secure the fiber rolls with rope and notched wood stakes.
- 2. Drive the stakes into the soil until the notch is even with the top of the fiber roll.
- 3. Lace rope between the stakes and over the fiber roll. Knot the rope at each stake.
- 4. Tighten by driving the stakes further into the soil and forcing the fiber roll against the surface of the ditch or drainage line.

Place a Type 2 temporary check dam as a single layer of gravel-filled bags, placed end-to-end to eliminate gaps. If you need to increase the height of the dam, add more layers of gravel-filled bags. Stack the bags in the upper row to overlap the joints in the lower row. Stabilize the rows by adding more rows of bags in the lower layers.

13-6.03C Temporary Drainage Inlet Protection

Provide temporary drainage inlet protection around drainage inlets as changing conditions require. The drainage inlet protection must be Type 1, Type 2, Type 3A, Type 3B, Type 4A, Type 4B, Type 5, Type 6A, Type 6B, or a combination of these as needed for the surrounding conditions.

For drainage inlet protection in paved or unpaved areas:

- 1. Prevent runoff ponds from encroaching onto the traveled way or overtopping the curb or dike. Use a linear sediment barrier to redirect runoff and control ponding.
- 2. Clear the area around each drainage inlet of obstructions, including rocks, clods, and debris greater than 1 inch in diameter, before installing the drainage inlet protection.

3. Install the linear sediment barrier upslope of the existing drainage inlet and parallel with the curb, dike, or flow line to prevent sediment from entering the drainage inlet.

If gravel-filled bags are used for Type 3A and Type 3B temporary drainage inlet protection, place the gravel-filled bags end-to-end to eliminate gaps. Stack the bags such that the upper row overlaps joints in the lower row. Arrange the bags to create a spillway by removing 1 or more gravel-filled bags from the upper layer.

Place fiber rolls over the erosion control blanket for Type 4A temporary drainage inlet protection.

Place the barrier to provide a tight joint with the curb or dike. Cut the cover fabric or jacket to ensure a tight fit.

If a rigid sediment barrier is used for Type 6A or Type 6B temporary drainage inlet protection at a grated inlet without a curb opening, place the barrier using a gasket to prevent runoff from flowing under the barrier. Secure the barrier to the pavement with nails and adhesive, gravel-filled bags, or a combination of both.

Install a sediment filter bag for Type 5 temporary drainage inlet protection as follows:

- 1. Remove the drainage inlet grate.
- 2. Place the sediment filter bag in the opening.
- 3. Replace the grate to secure the sediment filter bag in place.

13-6.03D Reserved

13-6.03E Temporary Fiber Rolls

Install a temporary fiber roll as specified for installing fiber rolls in section 21-2.03P.

13-6.03F Temporary Gravel Bag Berms

Install a temporary gravel bag berm under section 13-10.03C.

13-6.03G Rigid Plastic Barriers

Secure a rigid plastic barrier to:

- 1. Pavement with 1-inch concrete nails with 1-inch washers and solvent-free adhesive, gravel-filled bags, or a combination of both
- 2. Soil with 6-inch nails with 1-inch washers and wood stakes

13-6.03H-13-6.03J Reserved

13-6.04 PAYMENT

The payment quantity for temporary sediment control bid items paid for by length is the length measured along the centerline of the installed material.

The payment quantity for temporary fiber roll does not include the additional quantity used for overlaps.

The Department does not pay for the relocation of temporary drainage inlet protection during work progress.

The Department determines the cost for maintaining sediment control measures under section 9-1.04 and pays you 1/2 of that cost.

13-7 TEMPORARY TRACKING CONTROL

13-7.01 GENERAL

13-7.01A General

Section 13-7 includes specifications for limiting and removing sediment and debris tracked onto roadway surfacing.{ XE "Temporary tracking control" }

13-7.01B Materials

Not Used

13-7.01C Construction

Do not allow soil, sediment, or other debris that is tracked onto the surfacing to enter storm drains, open drainage facilities, and watercourses. Remove any material tracked onto the surfacing within 6 hours.

13-7.01D Payment

Not Used

13-7.02 STREET SWEEPING

13-7.02A General

13-7.02A(1) Summary

Section 13-7.02 includes specifications for sweeping streets.{ XE "Temporary tracking control:street sweeping" }

13-7.02A(2) Definitions

Reserved

13-7.02A(3) Submittals

At least 5 business days before starting clearing and grubbing, earthwork, or any other activity with the potential for tracking sediment or debris, submit the number and type of street sweepers that will be used on the project for each activity.

Keep and submit records of street sweeping activities, including sweeping times, sweeping locations, and the quantity of collected material.

13-7.02A(4) Quality Assurance

Reserved

13-7.02B Materials

Not Used

13-7.02C Construction

Use one of the following types of street sweepers:

- 1. Mechanical sweeper followed by a vacuum-assisted sweeper
- 2. Vacuum-assisted, dry, waterless, sweeper
- 3. Regenerative-air sweeper

Street sweeping does not void the requirements for residue collection included in other work activities, such as grooving, grinding, or asphalt concrete planing.

Sweep streets as specified for sweeping in section 13-4.03F except use a street sweeper.

At least 1 street sweeper must be at the job site at all times when street sweeping work is required. The street sweeper must be in good working order.

13-7.02D Payment

Not Used

13-7.03 TEMPORARY CONSTRUCTION ROADWAYS AND ENTRANCES

13-7.03A General

13-7.03A(1) Summary

Section 13-7.03 includes specifications for constructing temporary construction roadways and entrances.{ XE "Temporary tracking control:temporary construction roadways and entrances" }

13-7.03A(2) Definitions

Reserved

13-7.03A(3) Submittals

For a construction entrance, submit details for alternatives at least 5 business days before installation. You may propose alternatives for the sump and corrugated steel panels or eliminate the sump if authorized.

13-7.03A(4) Quality Assurance

Reserved

13-7.03B Materials

13-7.03B(1) General

Fabric for a temporary construction entrance must be Class 8 RSP fabric.

Fabric for temporary construction roadway must be Class 10 RSP fabric.

13-7.03B(2) Rock

Use Type A rock for a Type 1 temporary construction entrance.

Type A rock must comply with:

- 1. Quality characteristics for rock material in section 72-2.02
- 2. Sizes shown in the following table:

Square screen size (inch)	Percentage passing	Percentage retained
6	100	0
3	0	100

Use Type B rock for a Type 2 temporary construction entrance.

Type B rock must be no. 25 railway ballast complying with the *AREMA Manual for Railway Engineering*. Do not use blast furnace slag.

Use Type A or Type B rock for a temporary construction roadway.

13-7.03B(3) Corrugated Steel Panels

Each corrugated steel panel must:

- 1. Be pressed or shop welded
- 2. Have a slot or hook for connecting the panels together

13-7.03C Construction

Prepare the location for a temporary construction entrance or roadway as follows:

- 1. Remove vegetation to the ground level and clear away debris.
- 2. Grade the ground to a uniform plane.
- 3. Grade the ground surface to drain.
- 4. Remove sharp objects that could damage the fabric.
- 5. Compact the top 1.5 feet of the soil to at least a 90 percent relative compaction.

Construct a temporary construction entrance or roadway as follows:

- 1. Position the fabric along the length of the entrance or roadway.
- 2. Overlap the sides and ends of the fabric by at least 12 inches.
- 3. Spread rock over the fabric in the direction of traffic.
- 4. Cover the fabric with rock within 24 hours.
- 5. Keep a 6-inch layer of rock over the fabric to prevent damage from the spreading equipment.

Do not drive on the fabric until the rock is spread.

Repair fabric damaged during rock spreading by placing new fabric over the damaged area. The new fabric must be large enough to cover the damaged area and provide at least an 18-inch overlap on all edges.

Maintain a temporary construction entrance or roadway to minimize the generation of dust and tracking of soil and sediment onto public roads. Place additional rock if dust or sediment tracking increases.

Repair a temporary construction entrance or roadway if:

- 1. Fabric is exposed
- 2. Depressions develop in the surface
- 3. Rock is displaced

For a Type 2 temporary construction entrance, place rock under the corrugated steel panels. Use at least 6 corrugated steel panels for each entrance. Couple the panels together to prevent movement.

If using a sump, install the sump within 20 feet of each temporary construction entrance.

13-7.03D Payment

The Department determines the cost for maintaining a temporary construction entrance or roadway under section 9-1.04 and pays you 1/2 of that cost.

The Department does not pay for the relocation of temporary construction entrances or roadways during work progress.

13-8 TEMPORARY ACTIVE TREATMENT SYSTEMS

13-8.01 GENERAL

13-8.01A Summary

Section 13-8 includes specifications for providing a temporary active treatment system for the treatment and discharge of uncontaminated groundwater and accumulated stormwater from excavations or other areas requiring dewatering.{ XE "Temporary active treatment systems" }

Discharge may be released to a publicly owned treatment works instead of using a temporary active treatment system. If uncontaminated groundwater, stormwater, or both are discharged to a publicly owned treatment works, obtain a municipal batch discharge permit. The Department does not pay for obtaining the municipal batch discharge permit or for discharging the water.

13-8.01B Definitions

Reserved

13-8.01C Submittals

13-8.01C(1) General

Submit records for the delivery and removal of ATS components.

13-8.01C(2) Active Treatment System Plan

Within 20 days of Contract approval, submit your ATS plan. The plan must include:

- 1. Title sheet.
- 2. Table of contents.
- 3. Certification and approval sheet described in the Department's *Stormwater Prevention Plan (SWPPP)* and Water Pollution Control Program (WPCP) Preparation Manual.
- 4. Amendment log and format described in the Department's *Stormwater Prevention Plan (SWPPP)* and *Water Pollution Control Program (WPCP) Preparation Manual.*
- 5. Description and schedule of the discharge activities.
- 6. Discharge alternatives, including:
 - 6.1. Reuse of treated water for job site activities, such as dust control, irrigation, fill compaction, or concrete batch plant activities
 - 6.2. Percolation
 - 6.3. Discharge into storm sewers
 - 6.4. Discharge into surface waters
 - 6.5. Bypass process

- 6.6. Auto shutoff or recirculation process
- 7. Treatment system description and components.
- 8. Anticipated flow rates.
- 9. Operation and maintenance manual for the equipment.
- 10. Monitoring, sampling, and reporting plan, including QA and QC.
- 11. Health and safety plan.
- 12. Spill prevention plan.
- 13. Field-recorded data, visual inspection, calibration procedures, and examples of logs.
- 14. Descriptions of measuring equipment.
- 15. Shop drawings showing:
 - 15.1. Section and plan views of stormwater effluent treatment systems
 - 15.2. Location of sampling points for water quality measurements
 - 15.3. Flow path and placement of pipes, hoses, pumps, holding tanks, and other equipment used to convey water
 - 15.4. General position of treatment components relative to excavations or other areas requiring dewatering
 - 15.5. Point of stormwater discharge
 - 15.6. Watershed area treated in acres
- 16. Daily inspection report form.
- 17. Municipal batch discharge permit from a publicly owned treatment works if required.
- 18. Coagulant-handling work plan if you use chemical coagulants, in-line flocculants, or both in the treatment system. The coagulant-handling work plan must include:
 - 18.1. Description of WPC practices to prevent accidental spillage, overfeeding into the treatment system, or other mishandling of coagulant agents
 - 18.2. Monitoring plan for all coagulants, flocculants, or both
 - 18.3. Description of the coagulation and flocculating agents, including chemical and trade names
 - 18.4. Determination of acute or chronic toxicity for aquatic organisms conforming to EPA methods for the agents
 - 18.5. Monitoring plan to detect a residual agent at concentrations at or below the established acute toxicity levels for freshwater and marine conditions for that agent
 - 18.6. Six site-specific jar test results for each treatment chemical with one test serving as a control, demonstrating the proper treatment chemical and dosage levels for the ATS to meet NELs. Jar test water samples should be representative of typical site conditions and under ASTM D2035.
- 19. QA/QC Plan, to include:
 - 19.1. Instrumentation under manufacturer's instructions
 - 19.2. Calibration procedures and frequencies
 - 19.3. Instrument method detection limit or sensitivity verification
 - 19.4. Laboratory duplicate procedures.
- 20. Contact information of all personnel responsible for monitoring and maintaining the ATS.
- 21. Treatment capacity.
- 22. Failure plan with procedural details on when and how to shut the system down and who to contact.
- 23. Validation of selected residual chemical test from SWRCB ELAP.

Allow 20 days for review. If revisions are required, the Engineer notifies you of the date the review stopped and provides comments. Submit a revised ATS plan within 15 days of receiving the comments. The Department's review resumes when a complete plan has been resubmitted.

Submit an electronic copy of your authorized ATS plan. Allow 15 days for the Engineer to submit the plan to the SWRCB and the RWQCB. If the Engineer requests revisions based on comments from the SWRCB or RWQCB, submit a revised plan within 5 business days.

13-8.01C(3) Inspection Reports

If the ATS discharges treated effluent, submit a daily inspection report within 24 hours. The daily inspection report must include:

- 1. Discharge volumes
- 2. Water quality monitoring records
- 3. Discharge point information that includes:
 - 3.1. Date and time
 - 3.2. Weather conditions, including wind direction and velocity

- 3.3. Presence or absence of water fowl or aquatic wildlife
- 3.4. Color and clarity of the effluent discharge
- 3.5. Erosion or ponding downstream of the discharge point
- 3.6. Photographs labeled with the time, date, and location
- 4. Status of instrumentation
- 5. Status of filter loading

Retain each completed inspection report at the job site with the SWPPP.

13-8.01C(4) Notice of Discharge Reports

If observations and measurements confirm that a residual chemical or water quality standard is exceeded, submit the notice of discharge within 48 hours after exceeding the limits. The notice of discharge must include documentation of the reasons for exceeding the water quality standard and any corrective work performed to prevent a recurrence.

13-8.01C(5) Numeric Effluent Limitation Violation Reports

If a NEL is exceeded, notify the Engineer and submit a violation report within 6 hours. The report must include:

- 1. Field sampling results and inspections, including:
 - 1.1. Parameters, analytical methods, reporting units, and detection limits
 - 1.2. Date, location, time of sampling, visual observations, and measurements
 - 1.3. Quantity of precipitation of the storm event
- 2. An assessment of what caused the NEL exceedance
- 3. Description of WPC practices and corrective actions taken to manage NEL exceedance

For a project in the Lake Tahoe Hydrologic Unit, the NEL violation report must be submitted within 2 hours. The analytical results less than the method detection limits must be reported as *less than the method detection limits*.

13-8.01C(6)-13-8.01C(8) Reserved

13-8.01D Quality Assurance

13-8.01D(1) General

Reserved

13-8.01D(2) Regulatory Requirements

The design, installation, operation, and monitoring of the temporary ATS and monitoring of the treated effluent must comply with Attachment F of NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order No. 2022-0057-DWQ, NPDES No. CAS000002).

For a project within the Lake Tahoe Hydrologic Unit, the design, installation, operation, and monitoring of the temporary ATS and monitoring of the treated effluent must comply with Attachment E of the NPDES General Permit for General Waste Discharge Requirements and National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction Activity in the Lake Tahoe Hydrologic Unit, Counties of Alpine, El Dorado, and Placer, (Order No. R6T-2016-0010 and NPDES No. CAG616002). You may view the General Permit for the Lake Tahoe Hydrologic Unit at the Construction Storm Water Program page of the SWRCB website.

Perform toxicity testing that complies with the following if operating a temporary ATS in batch-treatment mode:

- 1. Discharger must initiate acute toxicity testing on effluent samples from each batch before discharge. Send bioassays to a laboratory certified by the SWRCB ELAP.
- Conduct acute toxicity tests as outlined for a 96-hour acute test in Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms, USEPA-841-R-02-012 for fathead minnow, *Pimephales promelas*. The acute toxicity for rainbow trout, *Oncorhynchus mykiss*, may be used as a substitute for testing fathead minnows.
- 3. Toxicity tests must comply with QA criteria and test acceptability criteria in the most recent versions of the EPA test method for whole effluent toxicity.

4. Toxicity tests and analysis must comply with the SWRCB's Toxicity Provisions.

13-8.01D(3) Training

Assign a lead ATS person to oversee ATS operations. The ATS person must have a minimum of 5 years construction stormwater experience overseeing ATS operations or hold a Wastewater Operator or Drinking Water Operator Certificate from the SWRCB.

Provide training to each ATS operator. The training must:

- 1. Be specific to the operation of the ATS and liquid coagulants for stormwater discharges in the State, including:
 - 1.1. Coagulation basics, including chemistry and physical processes
 - 1.2. System design and operating principles
 - 1.3. Control systems
 - 1.4. Coagulant selection, such as jar testing and dose determination
 - 1.5. Handling and safety measures for the toxicity of coagulants
 - 1.6. Monitoring, sampling, and analysis
 - 1.7. Reporting and recordkeeping
 - 1.8. Emergency response
- 2. Consist of a formal class with a certificate, testing, and certificate renewal requirements
- 3. Provide a minimum of 8 hours of classroom and 32 hours of field training

13-8.01D(4) Equipment Calibration

Calibrate the flow meter and devices for taking water quality measurements under the manufacturer's instructions and in the presence of the Engineer.

13-8.01D(5) Quality Control

Water discharged from a temporary ATS must comply with the NELs for discharge effluents and the receiving waters.

Test the water discharged from an ATS under the test methods shown in the following table:

Quality characteristic	Test method	Detection limit (min)	Requirement
Turbidity (min, NTU)	EPA 0180.1 or field test with calibrated portable instrument	1	10 for daily flow-weighted average 20 for any single sample
рН	Field test with calibrated portable instrument	0.2	Lower NEL = 6.0 Upper NEL = 9.0

Numeric Effluent Limitations

The residual chemical for the coagulant must be less than 10 percent of the maximum allowable threshold concentration for the most sensitive species utilizing the EPA approved test method for the specific pollutant parameter. Use a residual chemical test method that produces a result within one hour of sampling.

Take water quality measurements to verify the limit requirements for the receiving waters and discharge effluent for:

- 1. Discharges of water lasting more than 4 hours within a 24-hour period as follows:
 - 1.1. If the discharge could affect the receiving body of water in a stormwater drainage system, take measurements at the background and receiving-water sampling locations not more than 1 hour before discharging the treated water.
 - 1.2. Perform startup-phase sampling from 10 to 30 minutes after measurable runoff occurs during a storm. Startup-phase sampling includes stormwater runoff, background, and receiving water measurements taken during the first 3 days of discharge. Take samples at regular intervals during the storm. Take at least 4 samples for each discharge lasting 4 hours or more. The time between sampling must not exceed 4 hours.

- 1.3. Take regular-phase samples at least twice daily. Regular-phase sampling includes effluent, background, and receiving water measurements that occur after the 3rd day of activities. Take samples at regular intervals.
- 1.4. If the receiving body of water noticeably changes in color or clarity, take additional effluent, background, and downstream measurements.
- 1.5. If an initial measurement shows that the water quality limits have been exceeded, take an additional measurement from 15 minutes to 1 hour after the initial measurement.
- 1.6. If the 2nd test confirms the limits were exceeded, revert to the startup-phase sampling requirements before resuming regular-phase sampling.
- 1.7. For cofferdam maintenance dewatering, you may discontinue regular-phase monitoring after 10 days if the effluent and receiving water measurements are consistently below the water quality limits.
- 2. Discharges of water lasting 4 hours or less within a 24-hour period as follows:
 - 2.1. If the discharge could affect the receiving body of water in a stormwater drainage system, take measurements at the background and receiving water-sampling locations not more than 1 hour before discharging the treated water.
 - 2.2. Take effluent, background, and receiving water measurements from 10 to 30 minutes after initiating the discharge. Continue to take measurements every hour.
 - 2.3. If an initial measurement shows that the water quality limits have been exceeded, take an additional measurement not more than 15 minutes after the initial measurement.
 - 2.4. If the receiving body of water noticeably changes in color or clarity, take additional effluent, background, and downstream measurements.
- 3. All other discharges of water as follows:
 - 3.1. Measure the stormwater effluent turbidity and pH at the end of the outfall or in-line sampling port.
 - 3.2. Measure the receiving water turbidity, pH, and dissolved oxygen at (1) a point within the mixing zone and (2) a point within 15 feet downstream of the discharge point.
 - 3.3. Measure the natural background turbidity, dissolved oxygen, and pH at a location that is from 9 to 15 feet upstream of the discharge point. If another job site activity is being performed, measure at least 150 feet upstream of the discharge point.
 - 3.4. If the discharge is made into a surface body of water or into a stormwater drainage system that produces an observable effect on a surface body of water, monitor the receiving water.

For receiving water deeper than 3 feet, take depth-averaged measurements by taking samples from 3 points within the water column and averaging the following 3 measurements:

- 1. 12 inches below the surface
- 2. Mid depth
- 3. 12 inches above the bottom

For receiving water less than 3 feet deep, take the measurement 12 inches below the surface.

13-8.02 MATERIALS

13-8.02A General

An ATS must be designed for the site conditions and anticipated flow rate and must include (1) a treatment system, (2) a collection and conveyance system, and (3) a discharge method and location.

The ATS must be capable of capturing and treating within a 72-hour period a volume equal to the runoff from a 10-year, 24-hour storm event using a watershed coefficient of 1.0.

Monitoring equipment must be interfaced with the control system of the ATS to provide shutoff or recirculation whenever effluent readings do not comply with the turbidity and pH limits.

The control system must default to recirculation or shutoff during a power failure or catastrophic event.

The control system must control the amount of the coagulant, flocculant, or both to prevent overdosing.

Runoff in excess of the design storm used to size the ATS may be bypassed if discharges are in compliance with NALs, NELs and receiving water limitations specified in Section 13-3.01D(3).

13-8.02B Treatment System

The treatment system must be capable of removing sediment, and turbidity-producing suspended solids. Primary and secondary treatment may be required, or the design of the treatment system may require combined use of the various treatment components in series to achieve effective treatment. The treatment system must have components to:

- 1. Remove sediment and turbidity-producing suspended solids. Components may include desilting basins, settling tanks, sediment traps, gravity bag filters, sand media filters, pressurized bag filters, cartridge filters, chemical coagulants and in-line flocculants, temporary holding tanks, or any combination necessary to provide primary and secondary treatment.
- 2. Adjust the pH or dissolved oxygen by:
 - 2.1. Addition of sulfuric, phosphoric, citric, or nitric acid under the supplier's specifications for the treatment of water with high pH. You may use hydrochloric acid if the water is dechlorinated before discharge.
 - 2.2. Filtration through a limestone bed or the addition of sodium hydroxide for the treatment of water with a low pH.
 - 2.3. Aeration for the treatment of water with low dissolved oxygen.
- 3. Remove treatment chemicals and settled flocculant before discharge.
- 4. Remove, dispose of, or recirculate all backwash water.

13-8.02C Collection and Conveyance System

The collection and conveyance system must include pumps and piping to convey the water from the point of dewatering or stormwater capture to the treatment system and to the point of discharge. Pumps and piping must comply with section 74-2.

13-8.02D Monitoring Equipment

Monitoring equipment for the ATS must record data at least once every 15 minutes and cumulative flow data daily. The recording system must have the capacity to record a minimum of 7 days of continuous data.

13-8.03 CONSTRUCTION

13-8.03A General

Notify the Engineer 48-hours in advance of starting ATS operations.

Discharge treated water:

- 1. To control dust in an active area.
- 2. To land where the grade allows sheet flow and the soil allows infiltration.
- 3. Such that it does not:
 - 3.1. Cause erosion and scour. If scour occurs, repair the damage and install an energy dissipater.
 - 3.2. Impact the natural bedding and aquatic life.

Maintain the ATS to provide proper functioning and prevent leaks. Repair or replace the any component of the dewatering equipment that is not functioning properly.

Remove sediment from the storage or treatment cells as necessary to ensure the cells maintain their required water storage capability.

Sediments removed from the uncontaminated areas during maintenance of the treatment system must be dried, distributed uniformly, and stabilized at a location within the project limits where authorized.

Relocate the ATS as needed.

13-8.03B Monitoring 13-8.03B(1) General

While operating the ATS, monitor:

- 1. Influent and effluent turbidity
- 2. Influent and effluent pH
- 3. Residual chemical

- 4. Effluent flow rate and flow volume
- 5. Total volume
- 6. Freeboard on storage
- 7. Dose rates of chemical used, expressed in mg/L, 15 minutes after startup and every 8 hours of operation
- 8. Monthly laboratory duplicates for residual chemical or additive level

Use a flow meter to measure all discharges from treatment activities.

13-8.03B(2) Corrective Measures

If observations and measurements determine the water quality limits are exceeded, immediately stop the discharge, notify the Engineer, and start corrective measures to change, repair, or replace the equipment and procedures used to treat the water.

After the Engineer inspects and authorizes corrective measures, resume treatment and discharge activities under the startup-phase sampling requirements before resuming regular-phase sampling.

13-8.04 PAYMENT

Not Used

13-9 TEMPORARY CONCRETE WASHOUTS

13-9.01 GENERAL

13-9.01A Summary

Section 13-9 includes specifications for installing temporary concrete washouts.{ XE "Temporary concrete washouts" }

You may use any of the following systems for a temporary concrete washout:

- 1. Temporary concrete washout facility
- 2. Portable temporary concrete washout
- 3. Temporary concrete washout bin

13-9.01B Definitions

Reserved

13-9.01C Submittals

At least 5 business days before starting concrete activities, submit an informational submittal that includes:

- 1. Location of each concrete washout
- 2. Name and location of the off-site disposal site to receive the concrete waste
- 3. Copy of the permit issued by the RWQCB for the off-site commercial disposal site
- 4. Copy of the permit issued by the state or local agency with jurisdiction over a disposal site located outside of the State

Retain and submit tracking records for the disposal of concrete waste as an informational submittal.

Submit a certificate of compliance for (1) the fabric bag for gravel-filled bags and (2) the plastic liner.

13-9.01D Quality Assurance

Reserved

13-9.02 MATERIALS

13-9.02A General

The sign for a concrete washout must comply with section 12-3.11B(3) except the sign panel may be plywood. The sign panel must be at least 4 by 2 feet. The sign legend must read Concrete Washout in at least 6-inch-high black letters on a white background.

13-9.02B Temporary Concrete Washout Facilities

Stakes for a temporary concrete washout facility must comply with section 13-10.02C.

Straw bales for a temporary concrete washout facility must comply with section 13-10.02H.

Gravel-filled bags for a temporary concrete washout facility must comply with section 13-5.02G.

The plastic liner for a temporary concrete washout facility must be:

- 1. New single-ply polyethylene sheeting without seams or overlapping joints
- 2. At least 10 mils thick
- 3. Free of holes, punctures, tears, or other defects

13-9.02C Portable Temporary Concrete Washouts

A portable temporary concrete washout must be a commercially available, watertight container with enough capacity to contain all liquid and concrete waste generated by washout activities without seepage or spills and be:

- 1. At least 55 gallons in capacity.
- 2. Labeled for exclusive use as a concrete waste and washout facility. *Concrete Washout* must be stenciled in 3-inch-high black letters on a white background with the top of the letters placed 12 inches from the top of the container.

13-9.02D Temporary Concrete Washout Bins

A temporary concrete washout bin must be a commercially available, watertight container with enough capacity to contain all liquid and concrete waste generated by washout activities without seepage or spills and be:

- 1. At least 5 cubic yards in capacity
- 2. Roll-off type with or without folding steel ramps
- 3. Labeled for exclusive use as a concrete waste and washout facility

13-9.02E-13-9.02G Reserved

13-9.03 CONSTRUCTION

Place a concrete washout at the job site:

- 1. Before starting concrete placement activities
- 2. In the immediate area of concrete work where authorized
- 3. No closer than 50 feet from any storm drain inlet, open drainage facility, ESA, or watercourse
- 4. Away from traffic or public access areas

Install a concrete washout sign adjacent to each concrete washout location.

Use a concrete washout to collect:

- 1. Washout from concrete delivery trucks
- 2. Slurries containing concrete or asphalt from saw cutting, coring, grinding, grooving, and hydrodemolition
- 3. Concrete waste from mortar mixing stations

Do not fill a concrete washout higher than 75 percent of capacity.

Concrete washout must be covered before and during storm event.

Dispose of concrete waste within 2 business days after a concrete washout becomes full. Dispose of concrete waste from a concrete washout at a plant licensed to receive solid concrete waste, liquid concrete waste, or both.

Relocate a portable temporary concrete washout or bin as needed for concrete work.

Secure a portable temporary concrete washout or bin to prevent spilling concrete waste when relocating or transporting it within the job site. If you spill concrete waste, clean up the spilled material and place it back into the concrete washout unit.

13-9.04 PAYMENT

The Department does not pay for relocating a portable temporary concrete washout or bin.

13-10 TEMPORARY LINEAR SEDIMENT BARRIERS

13-10.01 GENERAL

13-10.01A Summary

Section 13-10 includes specifications for installing temporary linear sediment barriers.{ XE "Temporary linear sediment barriers" }

13-10.01B Definitions

Reserved

13-10.01C Submittals

Submit a certificate of compliance for:

- 1. Fiber rolls
- 2. Silt fence fabrics
- 3. Sediment filter bags
- 4. Foam barriers
- 5. Fabric for gravel-filled bags
- 6. Compost socks

If steel wire staples are substituted with an alternative attachment device, submit a sample of the device at least 5 business days before its installation.

13-10.01D Quality Assurance

Reserved

13-10.02 MATERIALS

13-10.02A General

Stakes, ropes, and staples must comply with section 21-2.02R except section 21-2.01 does not apply.

13-10.02B Fiber Rolls

A fiber roll must comply with section 21-2.02P except a fiber roll for a large sediment barrier must:

- 1. Have a diameter from 18 to 22 inches
- 2. Be at least 8 feet long
- 3. Weigh at least 6.5 lb/ft

13-10.02C Posts

Each post must comply with the specifications for a post for a temporary high-visibility fence except:

- 1. Post length must be at least 4 feet except for a temporary reinforced silt fence that must have a post length of at least:
 - 1.1. 6 feet for a Type 1 installation
 - 1.2. 5 feet for a Type 2 installation
- 2. Steel is not allowed for a post for a temporary large sediment barrier

13-10.02D High-Visibility Fabric

The high-visibility fabric must comply with the specifications for fabric for a temporary high-visibility fence.

13-10.02E Wire Mesh

Wire mesh for a temporary reinforced silt fence must:

- 1. Comply with section 80-2.02E
- 2. Be fabricated from at least 14-gauge horizontal and vertical wires welded at each intersection
- 3. Have a maximum opening of 2 inches wide by 4 inches high
- 4. Be supplied in 50-foot rolls

13-10.02F Wire

Wire for guy wires and tie wires for a temporary reinforced silt fence must be 16-gauge iron or steel.

13-10.02G Anchors

Anchors for a temporary reinforced silt fence must be fabricated from no. 4 steel reinforcing bar.

13-10.02H Straw Bales

Straw for a straw bale must comply with section 21-2.02H.

A straw bale must be:

- 1. At least 14 inches wide, 18 inches high, 36 inches long, and weigh at least 50 lb.
- 2. Composed entirely of vegetative matter except for the binding material.
- 3. Bound by wire, nylon, or polypropylene string. Do not use jute or cotton binding. Baling wire must be at least 16 gauge. Nylon or polypropylene string must be approximately 0.08 inch in diameter with 80 lb of breaking strength.

13-10.021 Foam Barriers

A foam barrier must have:

- 1. Urethane foam-filled core
- 2. Geosynthetic fabric cover and flap
- 3. Triangular, circular, or square cross section
- 4. Vertical height of at least 5 inches after installation
- 5. Horizontal flap at least 8 inches in width
- 6. Length of at least 4 feet per unit
- 7. Ability to interlock separate units into a long barrier such that water will not flow between units

The geosynthetic fabric cover and flap for a foam barrier must comply with the requirements shown in the following table:

Quality characteristic	Test method	Requirement
Grab breaking load in each direction, 1-inch grip (min, lb)	ASTM D4632	200
Apparent elongation in each direction (min, %)	ASTM D4632	15
Water flow rate (average roll value, gpm/sq ft)	ASTM D4491	100–150
Permittivity (min, 1/sec)	ASTM D4491	0.05
Apparent opening size (max average roll value, US standard sieve	ASTM D4751	40
size)		
UV resistance (min, percent retained grab breaking load at 500	ASTM D4355	70
hours)		

13-10.02J Gravel-filled Bags

Gravel-filled bags for a temporary gravel bag berm must comply with section 13-5.02G.

13-10.02K-13-10.02M Reserved

13-10.03 CONSTRUCTION

13-10.03A General

Before installing a temporary linear sediment barrier, remove obstructions, including rocks, clods, and debris greater than 1 inch in diameter, from the ground.

Maintain a temporary linear sediment barrier to provide sediment-holding capacity and to reduce concentrated flow velocities.

Repair or adjust the barrier if rills or other evidence of concentrated runoff occur beneath the barrier.

Repair or replace split, torn, or unraveled material. Add or replace posts, stakes, or fasteners as needed to prevent sagging or slumping.

Reattach any barrier that becomes detached or dislodged from the pavement.

Repair a split or torn rigid plastic barrier with 16-gauge galvanized steel wire or UV-stabilized cable ties from 5 to 7 inches in length.

Remove sediment deposits, trash, and other debris as needed or ordered.

Remove sediment deposits if the sediment exceeds 1/3 of the height above the ground behind a barrier.

If the removed sediment deposits are placed within the job site, stabilize the sediment deposits to prevent erosion.

Place gravel-filled bags behind temporary barrier system if used within a shoulder area.

13-10.03B Temporary Fiber Rolls

Install temporary fiber rolls as specified for installing fiber rolls in section 21-2.03P.

13-10.03C Temporary Gravel Bag Berms

Place gravel-filled bags end-to-end to eliminate gaps in a temporary gravel bag berm. Place the bags approximately parallel with the slope contour. Angle the last 6 feet upslope at the downhill end of the run. Stack the bags such that the upper row overlaps the joints in the lower row.

Add layers of gravel-filled bags to increase the height of a temporary gravel bag berm if needed. Stack the bags in the upper row to overlap the joints in the lower row. Stabilize the rows by adding rows of bags in the lower layers.

13-10.03D Temporary Large Sediment Barriers

Install a temporary large sediment barrier as follows:

- 1. Place a single row of fiber rolls end-to-end, approximately parallel with the slope contour. For any 20foot section of fiber roll, do not allow the fiber roll to vary by more than 5 percent from level.
- 2. Place the fiber rolls in a furrow that is from 6 to 8 inches deep.
- 3. Secure the fiber rolls with wood stakes 4 feet apart.
- 4. Place a stake 18 inches from each end of each fiber roll.
- 5. Drive the stakes into the soil such that the top of the stakes are less than 2 inches above the top of the fiber rolls.
- 6. Angle the last 6 feet upslope at the downhill end of the run.

13-10.03E Temporary Reinforced Silt Fences

Place a temporary reinforced silt fence parallel with the slope contour. For any 50-foot section of reinforced silt fence, do not allow the elevation at the base of the fence to vary by more than 1/3 of the fence height.

Install a temporary reinforced silt fence as follows:

- 1. Dig a 6-inch-deep trench.
- 2. Place the wire mesh and the bottom of the silt fence fabric in the trench.
- 3. Place posts on the downhill side of the fabric and wire mesh.
- 4. Attach the silt fence fabric to the wire mesh with tie wires or locking plastic fasteners along the length of the fence at not more than 3-foot horizontal spacing and from top to bottom at not more than 8-inch vertical spacing.
- 5. Backfill the trench with soil by hand or mechanical tamping to secure the silt fence fabric and the wire mesh in the trench.
- 6. Attach guy wires and anchors at each post. Install at least 2 anchors and guy wires at angle points and end posts.

Connect sections of temporary reinforced silt fence as follows:

- 1. Join separate sections to form reaches not more than 500 feet without openings.
- 2. Secure the end posts of each section by wrapping the tops of the posts with at least 2 wraps of 16gauge tie wire.

If temporary reinforced silt fence Type 1 is shown, attach high-visibility fabric to the steel posts with tie wires or locking plastic fasteners.

13-10.03F Temporary Silt Fences

Construct a temporary silt fence with silt fence fabric, posts, and fasteners assembled at the job site or with prefabricated silt fence.

If prefabricated silt fence is used, attach the fabric to the posts by inserting the posts into the sewn pockets. If the fence is assembled at the job site:

- 1. Fasten the fabric to the posts with staples or nails if wood posts are used
- 2. Fasten the fabric to the posts with tie wires or locking plastic fasteners if steel posts are used
- 3. Space the fasteners no more than 8 inches apart

Place a temporary silt fence parallel with the slope contour. For any 50-foot section of temporary silt fence, do not allow the base elevation of the fence to vary by more than 1/3 of the height of the fence above the ground.

Install a temporary silt fence as follows:

- 1. Place the bottom of the fabric in a 6-inch-deep trench.
- 2. Secure it with the posts placed on the downhill side of the fabric.
- 3. Backfill the trench with soil and compact by hand or mechanical methods to secure the fabric in the trench.

Connect sections of a temporary silt fence as follows:

- 1. Join separate sections to form reaches not more than 500 feet without openings.
- 2. Secure the end posts of each section by wrapping the tops of the posts with at least 2 wraps of 16gauge tie wire.

Silt fence may be installed by mechanically pushing the silt fence fabric vertically into the soil. Mechanically installed fabric must not slip out of the soil or allow sediment to pass under it.

13-10.03G Temporary Straw Bale Barriers

Install a temporary straw bale barrier as follows:

- 1. Place a single row of straw bales end-to-end and parallel with the slope contour. For any 20-foot section of straw bale barrier, do not allow it to vary by more than 5 percent from level.
- 2. Place straw bales in a trench or key them into the slope. Place the bales such that the binding wire or string does not come in contact with the soil. Use wood or metal posts as stakes.
- 3. Secure each straw bale with 2 stakes. The 1st stake in each bale must be driven toward the previously laid bale to force the bales together.
- 4. Drive the stakes into the soil such that the top of the stake is less than 2 inches above the top of the straw bale.
- 5. Angle the last 6 feet upslope at the downhill end of the run.

13-10.03H Temporary Foam Barriers

Secure a foam barrier to:

- 1. Pavement with (1) 1-inch concrete nails, 1-inch washers, and solvent-free adhesive, (2) gravel-filled bags, or (3) a combination of both
- 2. Soil with 6-inch nails and 1-inch washers

Secure the barrier with 2 nails at the connection points where barriers overlap. Do not pierce the barrier's core with nails.

13-10.03I Temporary Earthen Berms

Construct a temporary earthen berm with native soil or selected material at least 8 inches high by 36 inches wide. Compact it by hand or mechanical methods.

13-10.03J Temporary Compost Socks

Install temporary compost sock under section 21-2.03Q.

Temporary compost sock must not be installed upstream of a nutrient-impaired water body.

13-10.03K–13-10.03L Reserved 13-10.04 PAYMENT Not Used

13-11 WATER QUALITY MONITORING

13-11.01 GENERAL

13-11.01A General

Section 13-11 includes specifications for monitoring water quality and applies if a bid item for a water quality monitoring report or annual water quality report is shown on the Bid Item List.

13-11.01B Definitions

water quality rain event: Storm that produces or is forecasted to produce at least 0.10 inch of precipitation within a 24-hour period.

13-11.01C Submittals

13-11.01C(1) General

Reserved

13-11.01C(2) Water Quality Monitor

Within 7 days after Contract approval, submit the name and qualifications of your water quality monitor. Include the monitor's training and experience in collecting and analyzing water quality samples.

13-11.01C(3) Water Quality Monitoring Reports

Whenever work activities occur in water, submit a monthly report of water quality monitoring by the 7th of the month for the monitoring work conducted during the previous month. The report must include:

- 1. Visual inspection reports for each water quality rain event and nonstormwater discharge. Each visual inspection report must include:
 - 1.1. Name of personnel performing the inspection, inspection date, and date the inspection report was completed
 - 1.2. Descriptions of storm and weather conditions
 - 1.3. Locations and observations
- 2. Field inspection reports and sampling results, including:
 - 2.1. Description of the analytical methods used, reporting units, and detection limits
 - 2.2. Date, location, time of sampling, visual observations, photographs, and measurements
 - 2.3. Estimate of water flow
 - 2.4. Calibration logs for field monitoring equipment
- 3. Visual inspection reports and sampling results for a water quality rain event that generates visible runoff, including:
 - 3.1. Date, location, and time of visual observations
 - 3.2. Photographs of the areas disturbed by project activities, including material disposal areas
 - 3.3. Photographs showing the disturbed soil areas and documenting compliance for erosion control and revegetation measures, including soil stabilization and sediment control
- 4. Summary of WQO exceedance reports.
- 5. Summary of corrective actions.

If a WQO is exceeded during work activities in water, submit a WQO exceedance report within 6 hours. The report must include:

- 1. Field inspection reports and sampling results, including:
 - 1.1. Description of the analytical methods used, reporting units, and detection limits
 - 1.2. Date, location, time of sampling, visual observations, photographs, and measurements
 - 1.3. Estimate of the water flow
- 2. Description of WPC practices and corrective actions taken to manage WQO exceedance

13-11.01C(4) Water Quality Annual Reports

Section 13-11.01C(4) applies if a bid item for a water quality annual report is shown on the Bid Item List.

Submit a water quality annual report for each reporting period from July 1st to June 30th. If construction occurs through June 30th, submit the report no later than July 15th for the previous reporting period. If construction ends before June 30th, submit the report within 15 days after Contract acceptance.

The report must be in an authorized format and include:

- 1. Project's description, location, and receiving waters
- 2. Water quality monitoring information, such as:
 - 2.1. Summary and evaluation of sampling and analysis results and laboratory reports
 - 2.2. Analytical methods, reporting units, and detection limits for analytical parameters
 - 2.3. Summary of corrective actions
 - 2.4. Identification of corrective actions or compliance activities that were not implemented
 - 2.5. Summary of any exceedances
 - 2.6. Names of individuals performing water quality inspections and sampling
 - 2.7. Logistical information for inspections and sampling, including the location, date, time, and precipitation
 - 2.8. Visual observations and sample collection records
- 3. Photographs documenting Contract compliance for:
 - 3.1. Disturbed soil areas created by work activities
 - 3.2. Erosion control and revegetation measures, including soil stabilization and sediment control practices
 - 3.3. Completed work
- 4. Records of training and meetings for water quality permit compliance

Submit an electronic copy of the water quality annual report. Allow 10 days for review. If revisions are required, the Engineer notifies you of the date the review stopped and provides comments. Submit a revised report within 5 business days of receiving the comments. The Department's review resumes when the complete report is resubmitted.

Submit an electronic copy of your authorized water quality annual report. Include the signed certifications from the water quality monitor and the WPC manager.

13-11.01D Quality Control

13-11.01D(1) General

Section 13-11.01D applies if a bid item for a water quality monitoring report { XE "Water quality monitoring report" } is shown on the Bid Item List.

Project-specific WQOs for work activities in water are specified in the special provisions.

Assign a water quality monitor to collect water samples and record water quality data. The water quality monitor must have training and experience in collecting and analyzing water quality samples. The water quality monitor may be the same person as the WPC manager.

The water quality monitor must be responsible for generating and submitting water quality reports.

The water quality monitor must notify the Engineer within 6 hours of an unauthorized discharge.

The water quality monitor must inspect the job site and receiving waters after each water quality rain event and nonstormwater discharge. The inspection of a nonstormwater discharge must include observation of:

- 1. Receiving waters:
 - 1.1. 24 hours before starting work in water, including the installation of any clear-water diversion
 - 1.2. At least 4 times daily whenever work occurs in water, including the installation, operation, and removal of any clear water diversion
 - 1.3. For the presence of floating and suspended materials, sheen on the surface, discoloration, turbidity, and odors.
- 2. Job site for the presence of authorized and unauthorized nonstormwater discharges and their sources. Unauthorized discharges to surface waters include:
 - 2.1. Soil, silt, and sand
 - 2.2. Bark, sawdust, and slash
 - 2.3. Rubbish and debris

- 2.4. Cement, concrete, and concrete washings
- 2.5. Oil and petroleum products
- 2.6. Welding slag
- 2.7. Other organic or earthen materials

Retain each visual inspection report at the job site.

13-11.01D(2) Water Quality Sampling and Analysis

Take water quality samples each day a construction activity has the potential to mobilize sediment or alter background conditions within waters of the State. Take water quality samples of surface water when:

- 1. Conducting in-water work
- 2. Work activities result in materials reaching receiving waters
- 3. Work activities result in the creation of a visible plume in receiving waters

Comply with the equipment manufacturer's instructions for sample collection, analysis methods, and equipment calibration.

At least 24 hours before starting in-water work:

- 1. Establish locations for water quality sampling:
 - 1.1. Upstream of the effluent discharge point or location of in-water work by no more than 50 feet
 - 1.2. At the effluent discharge point, including the location of in-water work
 - 1.3. Downstream of the effluent discharge point or location of in-water work between 35 and 50 feet
- Take water quality samples to document background conditions for upstream, effluent, and downstream locations. Test for each water quality objective shown in the table titled "Water Quality Objectives."
- 3. Estimate water flow.

During in-water work, including the installation of a clear water diversion, take water quality samples:

- 1. At least 4 times daily for each water quality objective
- 2. At upstream, effluent, and downstream locations

If a water quality objective is exceeded, the water quality monitor must notify the Engineer by phone or electronic media within 30 minutes and:

- 1. Conduct water quality sampling every hour until measurements comply with water quality objectives
- 2. Measure the distance from the effluent location to the downstream extent of the exceedance
- 3. Obtain photographs of the tributary upstream, downstream, and at the location of in-water work
- 4. If WPC practices are installed, repaired, or modified to control the source of the exceedance, monitor the activity and document with samples, photographs, and a brief summary

Collecting samples are not required:

- 1. During dangerous weather conditions, such as flooding or electrical storms
- 2. Outside of normal working hours

If downstream samples show levels outside of the acceptable range and indicate a possible water quality objective exceedance, assess the WPC practices, site conditions, and surrounding influences to determine the probable cause for the increase.

Retain calibration logs, water quality sampling documentation, and analytical results at the job site.

13-11.01D(3) Reserved 13-11.02 MATERIALS Not Used 13-11.03 CONSTRUCTION Not Used

13-11.04 PAYMENT

Not Used

13-12 TEMPORARY CREEK DIVERSION SYSTEMS

Reserved

13-13-13-17 RESERVED