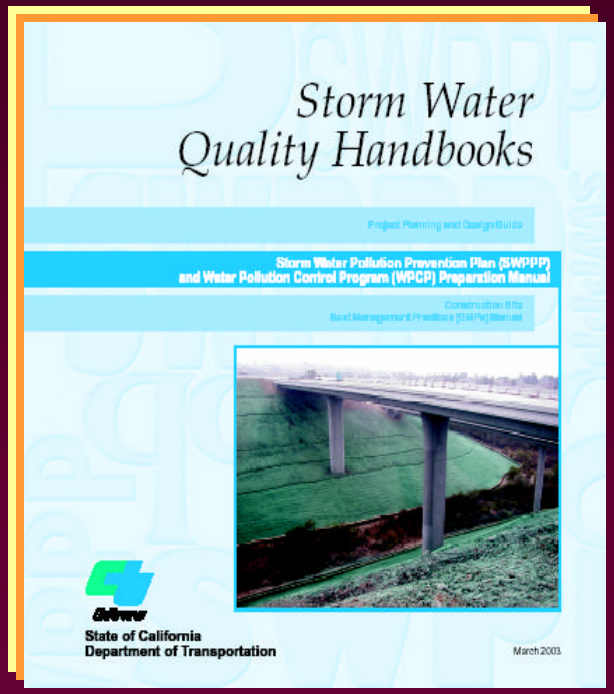
Continuing with RE Responsibilities Before Construction

- Course Highlights
  - ⇒ Introduction
  - ⇒ Recent Fines
  - ⇒ Role of the Players
  - ⇒ Management Tools
  - ⇒ RE Responsibilities Before Construction
  - ⇒ RE Responsibilities During Construction
  - ⇒ Project Closeout Responsibilities

- Review the RE Pending File
- Appoint your SWPPP Inspector
- Conduct Pre-Construction Meetings
- WPC Strategies
- Review the SWPPP/WPCP

- **Let's continue our review of a SWPPP**



Class Exercise

- **Implementation requirements are found in Construction Site BMPs Manual**

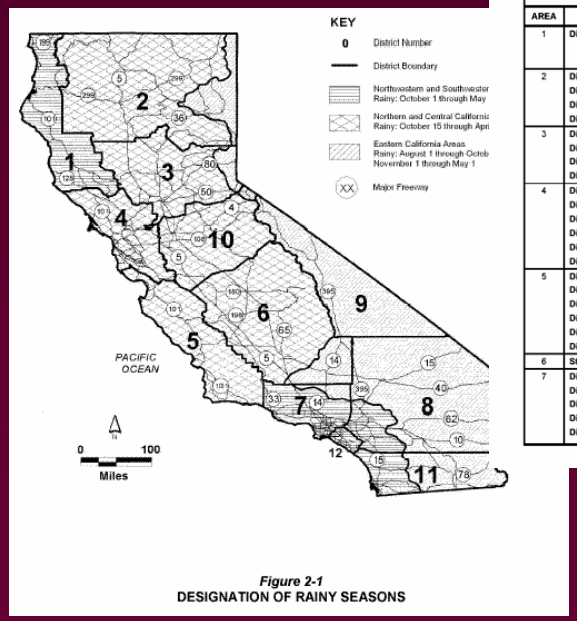


Figure 2-1
DESIGNATION OF RAINY SEASONS

Table 2-1

AREA DEFINITI

AREA	Applicability
1	**District 1** in the following areas: all of Del Norte and Humboldt Counties within 20 miles of the coast in Mendocino County
2	**District 1** (except within Area 1) **District 2** within the North Coast, Lahontan, and Central **Districts 3, 4** and **5** **District 10** within the Lahontan RWQCB jurisdiction
3	**District 1** (except within Area 1) **District 2** within the North Coast, Lahontan, and Central **Districts 3, 4** and **5** **District 10** within the Lahontan RWQCB jurisdiction
4	**District 6** within the Central Valley RWQCB jurisdiction **District 7** within the Central Coast, Los Angeles, and Cer **District 8** within the Santa Ana and San Diego RWQCB j **District 10** (except for the Lahontan RWCB jurisdiction) **District 11** within the San Diego RWQCB jurisdiction **District 12**
5	**District 6** within the Central Valley RWQCB jurisdiction **District 7** within the Central Coast, Los Angeles, and Cer **District 8** within the Santa Ana and San Diego RWQCB j **District 10** (except for the Lahontan RWCB jurisdiction) **District 11** within the San Diego RWQCB jurisdiction **District 12**
6	**Statewide**
7	**District 6** within the Lahontan RWQCB jurisdiction **District 7** within the Lahontan RWQCB jurisdiction **District 8** within the Lahontan and Colorado River Basin **District 9** **District 11** within the Colorado River Basin RWQCB juris

Table 2-2

REQUIRED COMBINATION OF TEMPORARY SOIL STABILIZATION AND TEMPORARY SEDIMENT CONTROLS AND BARRIERS (6) (7)

NON-ACTIVE DISTURBED SOIL AREAS

SEASON	AREA(S)	TEMPORARY BMP	SLOPE (V:H) (1) ≤ 1:20	> 1:20 ≤ 1:4	> 1:4 ≤ 1:2	> 1
RAINY(2)	1 & 6	SOIL STABILIZATION (5)	X	X	X	
		SEDIMENT BARRIER (5)	X	X	X	
		DESILTING BASIN (5)		X	X	
	2, 3, 4 & 5	SOIL STABILIZATION (5)	X	X	X	
		SEDIMENT BARRIER		X	X	
		DESILTING BASIN				
	7	SOIL STABILIZATION AND SEDIMENT CONTROL PRACTICES TO BE DETERMINED BY APPLICABLE RWQCB(7)				
NON-RAINY	1	SOIL STABILIZATION (5)	X(4)	X(4)	X	
		SEDIMENT BARRIER		X(4)	X	
		DESILTING BASIN				
	2 & 4	SOIL STABILIZATION				
		SEDIMENT BARRIER				
		DESILTING BASIN				
	3 & 5	SOIL STABILIZATION				
		SEDIMENT BARRIER				X
		DESILTING BASIN				
	6	SOIL STABILIZATION (5)	X(4)	X(4)	X	
		SEDIMENT BARRIER		X(4)	X	
		DESILTING BASIN (5)				
	7	SOIL STABILIZATION AND SEDIMENT CONTROL PRACTICES TO BE DETERMINED BY APPLICABLE RWQCB(7)				

(1) Unless otherwise noted, the temporary BMP is required for the slope inclinations indicated on slope lengths greater than 3 meters.
(2) The maximum slope length is 30 meters for slope inclinations between 1:20 (V:H) and 1:2 (V:H) and 15 meters for steeper slopes.
(3) Required in addition to the temporary sediment barrier, where feasible. Feasibility will depend on site-specific factors such as available right-of-way within the project limits, topography, soil type, disturbed soil area within watershed, and climate conditions.
(4) Implementation of controls not required except at least 24 hours prior to all predicted rain events.
(5) The indicated temporary BMP is required on all slope lengths.
(6) Sediment controls and barriers include all temporary sediment control construction BMPs identified in the Statewide Storm Water Quality Practice Guidelines associated with the SWMP and Section 4 of these guidelines. Linear barrier systems are equivalent to what are referred to in the General Construction Permit as perimeter controls. The intent is prevent the transport of sediment at the downslope edge of disturbed soil areas.
(7) Permanent erosion control seeding shall be applied to all non-active areas deemed substantially complete during the project's defined seeding window.
(8) Refer to Section 2.2.6 for procedure.

Table 2-3

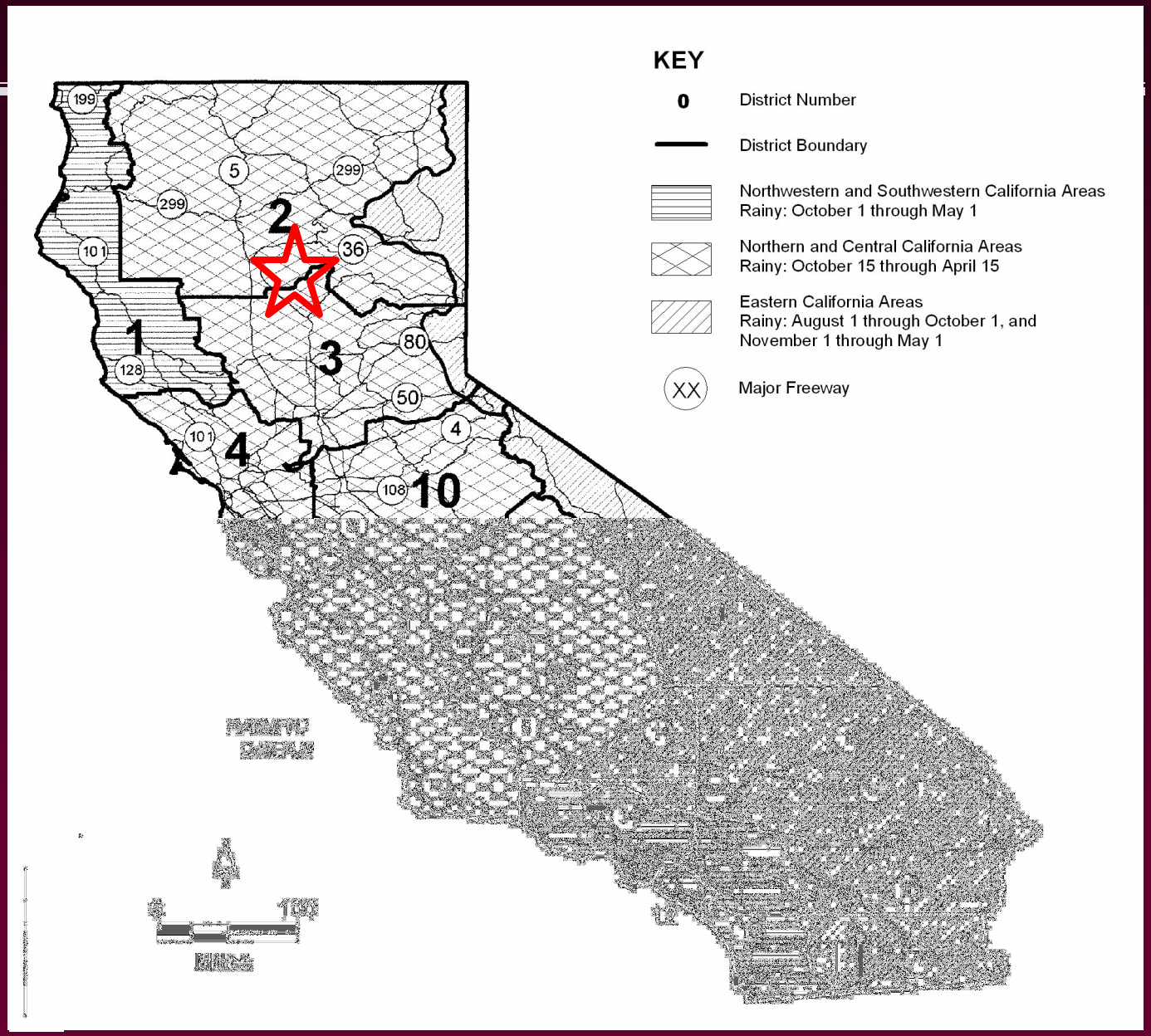
REQUIRED COMBINATION OF TEMPORARY SOIL STABILIZATION AND TEMPORARY SEDIMENT CONTROLS AND BARRIERS (6)

ACTIVE DISTURBED SOIL AREAS (3)

SEASON	AREA(S)	TEMPORARY BMP	SLOPE (V:H) (1) ≤ 1:20	> 1:20 ≤ 1:2	> 1:2
RAINY	1 & 6	SOIL STABILIZATION		X	X
		SEDIMENT BARRIER (4)	X	X	X
		DESILTING BASIN (2)		X	X
	2, 4 & 5	SOIL STABILIZATION			
		SEDIMENT BARRIER		X	X
		DESILTING BASIN (2)			X
	3	SOIL STABILIZATION			X(5)
		SEDIMENT BARRIER		X	X
		DESILTING BASIN (2)			X
	7	SOIL STABILIZATION AND SEDIMENT CONTROL PRACTICES TO BE DETERMINED BY APPLICABLE RWQCB(7)			
NON-RAINY	1	SOIL STABILIZATION			
		SEDIMENT BARRIER		X	X
		DESILTING BASIN(2)			X
	2, 3, 4 & 5	SOIL STABILIZATION			
		SEDIMENT BARRIER			
		DESILTING BASIN			
	6	SOIL STABILIZATION			
		SEDIMENT BARRIER		X	X
		DESILTING BASIN (2)			X
	7	SOIL STABILIZATION AND SEDIMENT CONTROL PRACTICES TO BE DETERMINED BY APPLICABLE RWQCB(7)			

(1) Unless otherwise noted, the BMP is required for the slope inclinations indicated on slope lengths greater than 3 meters.
(2) Required in addition to the temporary sediment barrier, where feasible. Feasibility will depend on site-specific factors such available right-of-way within the project limits, topography, soil type, disturbed soil area within watershed, and climate conditions.
(3) Implementation of soil stabilization controls are not required except prior to predicted rain.
(4) The indicated temporary BMP required on all slope lengths.
(5) The indicated temporary BMP required on slope lengths greater than 15 meters.
(6) Sediment controls and barriers include all temporary sediment control construction BMPs identified in the Statewide Storm Water Quality Practice Guidelines associated with the SWMP and Section 4 of these Guidelines. Linear barrier systems are equivalent to what are referred to in the General Construction Permit as perimeter controls. The intent is to provide a barrier to prevent the transport of sediment at the downslope edge of disturbed soil areas.
(7) Refer to Section 2.2.6 for procedures.

Class Exercise



Class Exercise

Table 2-1

AREA DEFINITIONS

AREA	Applicability	Elevation
1	**District 1** in the following areas: all of Del Norte and Humboldt Counties within 20 miles of the coast in Mendocino County	≤1200m = 3,950 ft
2	**District 1** (except within Area 1) **District 2** within the North Coast, Lahontan, and Central Valley RWQCB jurisdictions **Districts 3, 4** and **5** **District 10** within the Lahontan RWQCB jurisdiction	<250m <825 ft
3	**District 1** (except within Area 1) **District 2** within the North Coast, Lahontan, and Central Valley RWQCB jurisdictions **Districts 3, 4** and **5** **District 10** within the Lahontan RWQCB jurisdiction	250m – 1200m 825 ft – 3,950 ft
4	**District 6** within the Central Valley RWQCB jurisdiction **District 7** within the Central Coast, Los Angeles, and Central Valley RWQCB jurisdictions **District 8** within the Santa Ana and San Diego RWQCB jurisdictions **District 10** (except for the Lahontan RWCB jurisdiction) **District 11** within the San Diego RWQCB jurisdiction **District 12**	<500m <1,650 ft
5	**District 6** within the Central Valley RWQCB jurisdiction **District 7** within the Central Coast, Los Angeles, and Central Valley RWQCB jurisdictions **District 8** within the Santa Ana and San Diego RWQCB jurisdictions **District 10** (except for the Lahontan RWCB jurisdiction) **District 11** within the San Diego RWQCB jurisdiction **District 12**	500m – 1200m 1,650 ft – 3,950 ft
6	**Statewide** > 3,950 ft	>1200m
7	**District 6** within the Lahontan RWQCB jurisdiction **District 7** within the Lahontan RWQCB jurisdiction **District 8** within the Lahontan and Colorado River Basin RWQCB jurisdictions **District 9** **District 11** within the Colorado River Basin RWQCB jurisdiction	≤1200m = 3,950 ft

3	**District 1** (except within Area 1) **District 2** within the North Coast, Lahontan, and Central Valley RWQCB jurisdictions **Districts 3, 4** and **5** **District 10** within the Lahontan RWQCB jurisdiction	250m – 1200m **825 ft – 3,950 ft**

Class Exercise

Table 2-2

REQUIRED COMBINATION OF TEMPORARY SOIL STABILIZATION AND TEMPORARY SEDIMENT CONTROLS AND BARRIERS [6] [7]

NON-ACTIVE DISTURBED SOIL AREAS

SEASON	AREA(S)	TEMPORARY BMP	SLOPE (V:H) [1]			
			≤ 1:20	> 1:20 ≤ 1:4	> 1:4 ≤ 1:2	> 1:2
RAINY[2]	1 & 6	SOIL STABILIZATION [5]	X	X	X	X
		SEDIMENT BARRIER [5]	X	X	X	X
		DESILTING BASIN [3]		X	X	X
	2, 3, 4 & 5	SOIL STABILIZATION [5]	X	X	X	X
		SEDIMENT BARRIER		X	X	X
		DESILTING BASIN				
	7	SOIL STABILIZATION AND SEDIMENT CONTROL PRACTICES TO BE DETERMINED BY APPLICABLE RWQCB[8]				
NON-RAINY	1	SOIL STABILIZATION [5]	X[4]	X[4]	X	X
		SEDIMENT BARRIER		X[4]	X	X
		DESILTING BASIN				
	2 & 4	SOIL STABILIZATION				
		SEDIMENT BARRIER				
		DESILTING BASIN				
	3 & 5	SOIL STABILIZATION				
		SEDIMENT BARRIER				X[4]
		DESILTING BASIN				
	6	SOIL STABILIZATION [5]	X[4]	X[4]	X	X
		SEDIMENT BARRIER		X[4]	X	X
		DESILTING BASIN [3]				X
	7	SOIL STABILIZATION AND SEDIMENT CONTROL PRACTICES TO BE DETERMINED BY APPLICABLE RWQCB[8]				

(1) Unless otherwise noted, the temporary BMP is required for the slope inclinations indicated on slope lengths greater than 3 meters(10 ft)

(2) The maximum slope length is 30 meters for slope inclinations between 1:20 (V:H) and 1:2 (V:H) and 15 meters for steeper slopes. (100 ft) (50 ft)

(3) Required in addition to the temporary sediment barrier, where feasible. Feasibility will depend on site-specific factors such as available right-of-way within the project limits, topography, soil type, disturbed soil area within watershed, and climate conditions.

(4) Implementation of controls not required except at least 24 hours prior to all predicted rain events.

(5) The indicated temporary BMP is required on all slope lengths.

(6) Sediment controls and barriers include all temporary sediment control construction BMPs identified in the Statewide Storm Water Quality Practice Guidelines associated with the SWMP and Section 4 of these guidelines. Linear barrier systems are equivalent to what are referred to in the General Construction Permit as perimeter controls. The intent is prevent the transport of sediment at the downslope edge of disturbed soil areas.

(7) Permanent erosion control seeding shall be applied to all non-active areas deemed substantially complete during the project's defined seeding window.

(8) Refer to Section 2.2.6 for procedure.

Class Exercise

Table 2-3

REQUIRED COMBINATION OF TEMPORARY SOIL STABILIZATION AND TEMPORARY SEDIMENT CONTROLS AND BARRIERS [6]

ACTIVE DISTURBED SOIL AREAS [3]

SEASON	AREA(S)	TEMPORARY BMP	SLOPE (V:H) [1]		
			≤ 1:20	> 1:20 ≤ 1:2	> 1:2
RAINY	1 & 6	SOIL STABILIZATION		X	X
		SEDIMENT BARRIER [4]	X	X	X
		DESILTING BASIN [2]		X	X
	2, 4 & 5	SOIL STABILIZATION			
		SEDIMENT BARRIER		X	X
		DESILTING BASIN [2]			X
	3	SOIL STABILIZATION			X[5]
		SEDIMENT BARRIER		X	X
		DESILTING BASIN [2]			X
	7	SOIL STABILIZATION AND SEDIMENT CONTROL PRACTICES TO BE DETERMINED BY APPLICABLE RWQCB[7]			
NON-RAINY	1	SOIL STABILIZATION			
		SEDIMENT BARRIER		X	X
		DESILTING BASIN[2]			X
	2, 3, 4 & 5	SOIL STABILIZATION			
		SEDIMENT BARRIER			
		DESILTING BASIN			
	6	SOIL STABILIZATION			
		SEDIMENT BARRIER		X	X
		DESILTING BASIN [2]			X
	7	SOIL STABILIZATION AND SEDIMENT CONTROL PRACTICES TO BE DETERMINED BY APPLICABLE RWQCB[7]			

(1) Unless otherwise noted, the BMP is required for the slope inclinations indicated on slope lengths greater than 3 meters. **(10 ft)**

(2) Required in addition to the temporary sediment barrier, where feasible. Feasibility will depend on site-specific factors such available right-of-way within the project limits, topography, soil type, disturbed soil area within watershed, and climate conditions.

(3) Implementation of soil stabilization controls are not required except prior to predicted rain.

(4) The indicated temporary BMP required on all slope lengths.

(5) The indicated temporary BMP required on slope lengths greater than 15 meters. **(50 ft)**

(6) Sediment controls and barriers include all temporary sediment control construction BMPs identified in the Statewide Storm Water Quality Practice Guidelines associated with the SWMP and Section 4 of these Guidelines. Linear barrier systems are equivalent to what are referred to in the General Construction Permit as perimeter controls. The intent is to provide a barrier to prevent the transport of sediment at the downslope edge of disturbed soil areas.

(7) Refer to Section 2.2.6 for procedures.

Class Exercise

Table 2-2

REQUIRED COMBINATION OF TEMPORARY SOIL STABILIZATION AND TEMPORARY SEDIMENT CONTROLS AND BARRIERS (6) (7)

NON-ACTIVE DISTURBED SOIL AREAS

SEASON	AREA(S)	TEMPORARY BMP	SLOPE (V:H) (1)			
			≤ 1:20	> 1:20 ≤ 1:4	> 1:4 ≤ 1:2	> 1:2
RAINY(2)	1 & 6	SOIL STABILIZATION (5)	X	X	X	X
		SEDIMENT BARRIER (5)	X	X	X	X
		DESILTING BASIN (3)		X	X	X
	2, 3, 4 & 5	SOIL STABILIZATION (5)	X	X	X	X
		SEDIMENT BARRIER		X	X	X
		DESILTING BASIN				
	7	SOIL STABILIZATION AND SEDIMENT CONTROL PRACTICES TO BE DETERMINED BY APPLICABLE RWQCB(8)				
NON-RAINY	1	SOIL STABILIZATION (5)	X(4)	X(4)	X	X
		SEDIMENT BARRIER		X(4)	X	X
		DESILTING BASIN				
	2 & 4	SOIL STABILIZATION				
		SEDIMENT BARRIER				
		DESILTING BASIN				
	3 & 5	SOIL STABILIZATION				
		SEDIMENT BARRIER				X(4)
		DESILTING BASIN				
	6	SOIL STABILIZATION (5)	X(4)	X(4)	X	X
		SEDIMENT BARRIER		X(4)	X	X
		DESILTING BASIN (3)				X
	7	SOIL STABILIZATION AND SEDIMENT CONTROL PRACTICES TO BE DETERMINED BY APPLICABLE RWQCB(8)				

(1) Unless otherwise noted, the temporary BMP is required for the slope inclinations indicated on slope lengths greater than 3 meters. **(10 ft)**

(2) The maximum slope length is 30 meters for slope inclinations between 1:20 (V:H) and 1:2 (V:H) and 15 meters for steeper slopes. **(100 ft)** **(50 ft)**

(3) Required in addition to the temporary sediment barrier, where feasible. Feasibility will depend on site-specific factors such as available right-of-way within the project limits, topography, soil type, disturbed soil area within watershed, and climate conditions.

(4) Implementation of controls not required except at least 24 hours prior to all predicted rain events.

(5) The indicated temporary BMP is required on all slope lengths.

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(7) Permanent erosion control seeding shall be applied to all non-active areas deemed substantially complete during the project's defined seeding window.

(8) Refer to Section 2.2.6 for procedure.

BMP Selection Process

- **Page 40 of 97 of the SWPPP Preparation Manual**
- **Identify all contract required BMPs**
  - ⇒ Minimum requirement BMPs identified in Section BMP Tables
  - ⇒ Required by the Special Provisions
- **Select appropriate BMPs to eliminate or reduce pollutants identified in the inventory list in section 500.3.1**
- **Section 2 of Construction Site BMPs Manual has instructions for selection**
- **Show the BMPs on the WPCDs and provide a narrative description for the BMPs selected**

SWPPP Attachments

- **Section BMP Tables**
  - ⇒ List the BMPs that are minimum requirements
  - ⇒ Identifies The BMPs the contractor will use
  - ⇒ Discuss each BMP selected in the SWPPP
    - Include all selected BMPs in the Cost Breakdown (Schedule of Values), except for those items shown on the plans and paid for as a separate item of work.
  - ⇒ Need him to consider new BMPs: SS-12, NS-11, NS-12, NS-13, NS-14 and NS-15

500.3.4

Soil Stabilization (erosion control)

- Page 41 of 97 of the SWPPP Preparation Manual
- Required text
- Select temporary soil stabilization BMPs
- Provide introductory paragraphs that define soil stabilization and give a general approach on how temporary soil stabilization BMPs will be implemented on the project
- List all temporary soil stabilization BMPs planned for the project
- Show selected BMPs on the WPCDs (WPCD-2)
- Discuss the on-site availability of temporary soil stabilization materials and proposed mobilization and implementation of BMPs in the event of a predicted storm

500.3.5

Sediment Controls

- Page 44 of 97 of the SWPPP Preparation Manual
- Required text
- Select temporary sediment control BMPs
- Provide introductory paragraphs that define temporary sediment controls and give a general approach on how temporary sediment control BMPs will be implemented on the project
- List all temporary sediment control BMPs planned for the project
- Show selected BMPs on the WPCDs (WPCD 2)
- Show BMPs used to divert off-site drainage around and/or through the construction project
- Discuss the on-site availability of temporary sediment control materials and proposed mobilization and implementation of BMPs in the event of a predicted storm – Minimum 10% of installed quantity shall be stored on site.

500.3.6

Tracking Controls

- Page 46 of 97 of the SWPPP Preparation Manual
- Required text
- Implemented year-round
  - Select which tracking BMPs will be used
  - Give a narrative description of tracking controls
  - Show BMP locations on the WPCDs (WPCD-2)
  - Describe measures to reduce sediment tracking
  - Discuss road cleaning BMPs

500.3.7

- **Wind Erosion Controls**
  - Page 48 of 97 of the SWPPP Preparation Manual
  - Required text
  - Year-round implementation
  - Select wind erosion BMPs
  - Give a narrative description of wind erosion control BMPs
  - Include stockpile operations

500.3.8

Non-Storm Water Controls

- Page 49 of 97 of the SWPPP Preparation Manual
- Required text
- Review the construction activities to identify potential non-storm water discharges that may be generated or may be required in order to complete the project
- Describe mandatory non-storm water control practices required by Caltrans or RWQCB (e.g. dewatering)
- Use the BMP Consideration Checklist to determine minimum requirements and additional selected BMPs
- List the selected BMPs, describe proposed facilities for material storage, and show locations and details on WPCDs (WPCD-2)

500.3.8

Non-Storm Water Controls

- Non-storm water discharges consist of all discharges which do not originate from precipitation events (i.e., all discharges other than storm water from a conveyance system).
- There are three types of non-storm water discharge specified in the Permit
  - Illicit discharges – unplanned
  - Non-prohibited – planned and unplanned (irrigation)
  - NPDES permitted – planned (dewatering)

500.3.8 Non-Storm Water Discharges

- **Describe mandatory non-storm water control BMPs and practices required by Caltrans, RWQCB or other agencies**
  - ⇒ Provide details and schedules
  - ⇒ Maintenance and inspection
  - ⇒ Testing and reporting requirements
  - ⇒ Provide permit information if covered by separate NPDES permit

500.3.9

Waste Management and Materials Pollution Controls

- Page 53 of 97 of the SWPPP Preparation Manual
- Required text
- Review the construction activities to identify likely construction materials and waste that will be generated on the project
- Identify materials and waste that require special handling
- Use the BMP Consideration Checklist to determine minimum requirements and additional selected BMPs
- List the selected BMPs, describe proposed facilities for material storage, and show locations and details on WPCDs (WPCD-2)
- Describe proposed waste collection and removal schedules

500.3.10 Cost Breakdown for Water Pollution Control

- **Cost Breakdown Itemizing Lump Sum for Water Pollution Control**
  - Required Text
  - Complete table in section
  - Do not include those items that are shown on the project plans and for which there is a contract item of work

TABLE 2-1

SAMPLE COST BREAKDOWN [1] [2] [3]

Cost Breakdown for Water Pollution Control

Contract No. _____

	Unit Description	*Unit*	*Approximate Quantity*	*Unit Cost $*	*Total Cost $*
SS-1	Scheduling	-	-	N/A	N/A
SS-2	Preservation of Existing Vegetation	LS	-	5,000.00	5,000.00
SS-6	Straw Mulch	HA	20	3,750.00	75,000.00
SS-9	Earth Dike	M	600	3.00	1,800.00
SS-9	Ditches (lined)	M	400	5.00	2,000.00
SS-10	Outlet Protection/Velocity Dissipation Device	EA	10	400.00	4,000.00
SS-11	Slope Drains	M	80	30.00	2,400.00
SC-1	Silt Fence	M	3,000	10.00	30,000.00
SC-2	Desilting Basin	EA	1	2,800.00	2,800.00
SC-4	Check Dams	EA	20	200.00	4,000.00
SC-7	Street Sweeping and Vacuuming	LS	1	30,000.00	30,000.00
SC-8	Sandbag Barrier	M	1600	3.00	4,800.00
SC-10	Storm Drain Inlet Protection Type 1	EA	20	500.00	10,000.00
SC-10	Storm Drain Inlet Protection Type 2	EA	10	300.00	3,000.00
SC-10	Storm Drain Inlet Protection Type 3	EA	10	400.00	4,000.00
WE-1	Wind Erosion Control	HA	5	3,000.00	15,000.00
TC-1	Stabilized Construction Entrance/Exit	EA	6	1,500.00	9,000.00
NS-6	Illicit Connection/Illegal Discharge Detection and Reporting	-	-	N/A	N/A
NS-8	Vehicle and Equipment Cleaning	LS	-	4,000	4,000
NS-9	Vehicle and Equipment Fueling	LS	-	2,000	2,000
NS-10	Vehicle and Equipment Maintenance	LS	-	2,000	2,000
WM-1	Material Delivery and Storage	LS	-	15,000	15,000
WM-2	Material Use	LS	-	2,000	2,000
WM-3	Stockpile Management	EA	50	200.00	10,000.00
WM-4	Spill Prevention and Control	LS	-	2,000	2,000
WM-9	Sanitary/Septic Waste Management	LS	-	3,000	3,000
				Total	**$242,800.00** [2]

Notes:
1. This cost breakdown is an example only. The unit costs shown may not reflect unit costs for water pollution control.
2. The total of all extended unit costs shall equal the lump sum bid for water pollution control.
3. The cost breakdown shall include minimum requirements and special requirements listed in the contract special provisions.
4. The cost breakdown shall not include construction site BMPs shown in the drawings and paid as separate bid items.

500.3.10 Cost Breakdown for Water Pollution Control

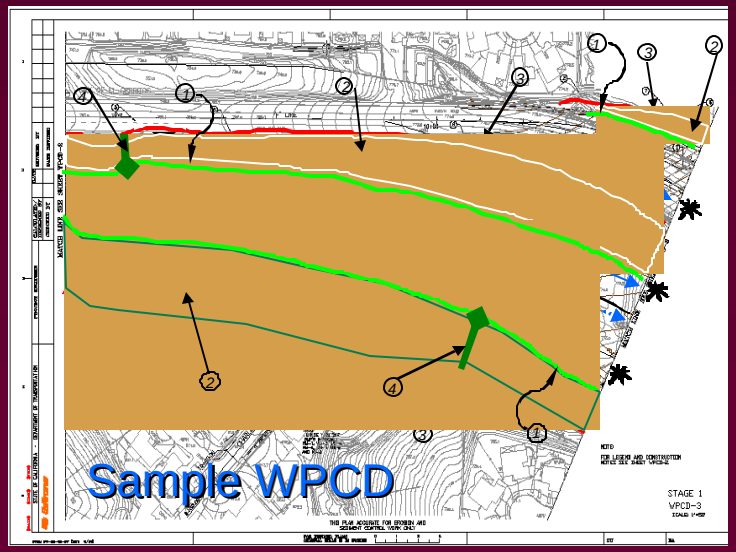
⇒ Water Pollution Control Cost Breakdown

- Delete separate cost items and those that are not applicable
- Designate estimated quantity, value, and amount for each item selected

500.4

Water Pollution Control Drawings

- Page 57 of 97 of the SWPPP Preparation Manual
- Required text: WPCDs can be found in Attachment B
- Include a cover sheet(s) listing the BMPs that will be used, construction notes, and legend (Manual Appendix A, Attachment B WPCD-1)
- Include Detail Sheets in Attachment Q or reference copy of Construction Site BMP Manual that will be kept on-site with SWPPP



SWPPP Attachments

- **Attachment Q**
  - ⇒ BMPs Selected for the Project
    - Insert copies of BMPs from the Construction Site BMPs Manual selected
    - Or reference copies available in onsite BMP's Manual

500.4

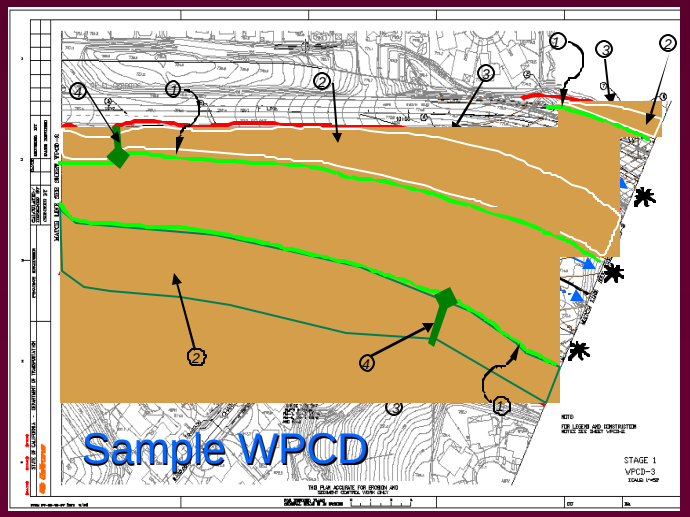
Water Pollution Control Drawings

- Use project layout, grading, stage construction, drainage, or erosion control sheets for the WPCDs
- Select the appropriate BMPs for the site and show them on the WPCDs

500.4

Water Pollution Control Drawings

- Base sheets shall show:
  - Construction site perimeter
  - Geographic features on or adjacent to the site including surface waters
  - Site topography before and after construction: roads, paved areas, buildings, slopes, drainage areas, contaminated areas
  - Permanent post-construction BMPs



Water Pollution Control Drawings

- **Delineate the following information on the WPCDs**
  - Discharge points from the project (SWPPP Manual Appendix A Attachment B, WPCD-2)
  - Tributary areas and drainage patterns across the project site, to drain inlets or discharge points
  - Drainage areas out side the site perimeter
  - Temporary on-site drainage(s) to carry concentrated flows
  - Drainage patterns and slopes after grading activities are completed

Water Pollution Control Drawings

- **Delineate the following information on the WPCDs (continued)**
  - Outline of existing vegetation, soil cover, or native vegetation that will remain undisturbed during the project (WPCD-2)
  - Outline of all areas of disturbed soil areas DSA
  - Identified location of contaminated or hazardous soils (WPCD-4)
  - Location of non-storm water discharges and activities (e.g., CWM on WPCD-2)
  - Contractor's yard (WPCD-3)
  - Monitoring locations

Water Pollution Control Drawings

- **Show proposed locations for all construction site BMPs**
  - Temporary on-site drainages which will carry concentrated flows (WPCD-4)
  - BMPs that protect inlets or outlets (WPCD-9)

500.5

- **Construction BMP Maintenance, Inspection and Repair**
  - Page 57 of 97 of the SWPPP Preparation Manual
  - Require Text: Maintenance Inspection and Repair program for BMPs
  - The purpose of storm water inspection is to evaluate BMP effectiveness and implement repairs or design changes as soon as feasible
  - Include discussion of all referenced BMPs
  - Inspections shall be completed by the WPCM prior to and after storm events and at 24-hour intervals during extended storm events or as required in the Special Provisions
  - Submit completed inspections to the RE within 24-hours and keep a copy in the onsite SWPPP
  - Inspect project on a regular basis to ensure that non-weather related BMPs are being implemented and maintained

500.5

- Program for Maintenance, Inspection, and Repair of Construction site BMPs
  - Describe maintenance, inspection, and repair program for all BMPs used on the project
  - Inspection frequency
  - Maintenance schedule
  - Repair procedures

500.6

- **Post Construction Storm Water Management**
  - Page 61 of 97 of the SWPPP Preparation Manual
  - Required text
  - 500.6.1 Post Construction Control Practices
    - List post-construction BMPs that will be used after project completion
  - 500.6.2 Operation and Maintenance after Project Completion
    - Describe funding and maintenance of post construction BMPs
    - Short and long term funding
    - Caltrans regional maintenance staff
    - Local agency or municipality
    - Caltrans maintenance staff and local agency or municipality

500.7

Training

- Page 63 of 97 of the SWPPP Preparation Manual
- Required text
- All individuals responsible for SWPPP preparation, implementation, and permit compliance are required to be trained
- Training may be both formal and informal
- The Contractor's WPCM and SWPPP preparer shall have a minimum of 24-hours (3 days) of formal training
- On-site storm water pollution prevention training shall be conducted on an on going basis
- Document storm water training (Attachment I)

Information about contractor training can be found at
http://www.dot.ca.gov/hq/construc/stormwater/swppp_training.html

SWPPP Attachments

- **Attachment I**
  - Trained Personnel Log
    - Documents training of personnel
    - Formal and informal
    - Tailgate meetings

Information about contractor training can be found at
http://www.dot.ca.gov/hq/construc/stormwater/swppp_training.html

500.8

- **List of Subcontractors**
  - ⇒ Page 65 of 97 of the SWPPP Preparation Manual
  - ⇒ Required text
  - ⇒ Include names of all contractors, subcontractors, and individuals responsible for implementation of the SWPPP
    - Name, telephone number, address, emergency contact number, and area of responsibility
  - ⇒ Send notification letter to subcontractors of their responsibility to comply with the SWPPP and Permit
  - ⇒ Sample list and notification letter (Attachment J)

SWPPP Attachments

- **Attachment J**
  - Subcontractor Notification
    - Notifies subcontractor of requirement to comply with the SWPPP and Permits
  - Subcontractors Log
    - Company name
    - Contact name
    - Address
    - Phone number
    - Pager/field phone
    - Date notification letter was sent
    - Type of work performed

500.9

Other Plans and Permits

- Incorporate appropriate elements from required Local, State, or Federal Permits into the SWPPP
- Provide a list of other plan or permits
- SWPPP Attachment N
  - Include copy of Caltrans Statewide Permit CAS000003
  - Include a copy of the General Construction Permit CAS000002
  - Include copies of Local, State, Federal plans or permits identified for the project

Section 600

- **Monitoring Program and Reports**
  - ⇒ 600.1 Site Inspections
  - ⇒ 600.2 Discharge Reporting
  - ⇒ 600.3 Record Keeping and Reports
  - ⇒ 600.4 Sampling and Analysis Plan for Sediment
  - ⇒ 600.5 Sampling and Analysis Plan for Non-Visible Pollutants

600

- **Page 67 of 97 of the SWPPP Preparation Manual**
- **Required text**
- **600.1 Site Inspections**
  - ⇒ Prior to and after storm events
  - ⇒ At 24-hour intervals during extended storm events
  - ⇒ As specified in the project Special Provisions
  - ⇒ Use sample inspection form (Attachment H) or equivalent

SWPPP Attachments

- **Attachment H**

  Storm Water Quality Construction Site Inspection Checklist

  - ⇒ Performed by qualified trained Person
  - ⇒ List observation of BMPs
  - ⇒ Evaluate BMPs
  - ⇒ Describe inadequate BMPs
  - ⇒ Discuss corrective measures for BMPs

600

600.2 Discharge Reporting

- Report discharges to the RE verbally upon discovery and in writing within 7 days of occurrence
- Use sample discharge form (Attachment K)

SWPPP Attachments

- **Attachment K: Notice of Discharge, Written Notice, or Order**
  - Report instances of discharge
  - Submitted to the RE within 7 days
  - Written notice or orders from a regulatory agency

Notice of Discharge Form

- **Name of Caltrans RE, Date**
- **Project Name**
- **Caltrans Contract Number**
- **Discharge Information:**
  - Date, time and location of discharge
  - Nature of operation that caused discharge
  - Initial assessment of impact caused by the discharge
  - Existing BMP(s) in place prior to discharge event
  - Date of deployment and type of BMPs deployed after discharge
  - Step taken or planned to reduce, eliminate and/or prevent recurrence of discharge
  - Implementation and maintenance schedule for affected BMPs
- **Name, Title of Contact Person, Company, Telephone Number, Signature and Date**

600

- **600.3 Record Keeping and Reports**
  - Retain records for a minimum of three years
- **600.4 Sampling and Analysis Plan for Sediment**
- **600.5 Sampling and Analysis Plan for Non-Visible Pollutants**
  - Pollutant Testing Guidance Table (Attachment S)
- **Example Sampling and Analysis Plans**

http://www.dot.ca.gov/hq/construc/stormwater/templates.htm

SWPPP Attachments

- **Attachment P**
  - Notice of Completion of Construction (NCC)
  - Notice of Completion of Construction – Completed by Caltrans at the end of Construction

SWPPP Attachments

- **Attachment R**
  - Sample Activity Log – A form for logging sampling event information

SWPPP Attachments

- **Attachment S**
  - Pollutant Testing Guidance Table
    - There are a few soil stabilizers that do not require sampling.
    - Only non-visible pollutants require sampling.
    - Many common construction materials are not invisible.

SWPPP Attachments

- **Attachment T**
  - Sampling Data Reporting Form
    - Form for electronic submission of sampling data
    - Requires contractor signature of certification

SWPPP Attachments

- **Attachment U**
  - ⇒ Discharge Reporting Log
    - Form to log discharge incidents as reported in Attachment K