APPENDIX E

PUBLIC CONSTRUCTION ACTIVITIES MANAGEMENT GUIDANCE

E.1 CONSTRUCTION ACTIVITY MANAGEMENT REQUIREMENTS

E.1.1 Construction Control Measures

Guidance for preparation of a Local Storm Water Pollution Prevention Plan (Local SWPPP) and Wet Weather Erosion Control Plan (WWECP) for Construction Priority Projects is provided in Attachment E1. The General Construction Permit can be viewed or downloaded from the State Water Resources Control Board's web page: www.swrcb.ca.gov/stormwtr/construction.htm.¹ BMP selection guidance is provided in Attachment E2.

E.1.2 Site Inspection

A construction site inspection checklist that can be used for contractor self-inspections for Construction Priority Projects and a Permittee construction site inspection checklist are provided in Attachments E3 and E4, respectively.

E.1.3 BMP Checklist

A BMP checklist is provided as Attachment E5. The categories of BMPs described in Sections E.2.2.1 through E.2.2.5 must be included.

E.1.3.1 Erosion Control (Soil Stabilization) Practices

Preserve existing vegetation where feasible and revegetate disturbed areas as soon as feasible after grading or construction. At a minimum, one or more erosion control practices must be implemented on all disturbed areas during the winter season.

E.1.3.2 Sediment Control Practices

Use control practices that, to the extent feasible, will prevent a net increase in sediment load in stormwater discharges. At a minimum, one or more sediment controls must be implemented for all significant sideslope and downslope boundaries of the construction site and at all internal storm drain inlets.

¹ A copy of the General Construction Permit can also be obtained from the Los Angeles Regional Board at 320 W. 4th Street, Suite 200, Los Angeles, CA 90013; telephone 213.576.7700.

E.1.3.3 Tracking Control Practices

Use tracking control practices to reduce tracking of sediment onto public and private roads, and inspect and clean roads as necessary.

E.1.3.4 Wind Erosion Control Practices

Use control practices to reduce wind erosion. Practices are generally similar to those used for erosion control.

E.1.3.5 Non-Stormwater and Materials and Waste Management Practices

Use applicable control practices based on site activities year round to eliminate or reduce the discharge of materials other than stormwater.

E.1.4 Verification of Construction Activity BMPs

The inspection and enforcement procedures described in Section 2.2.2.3 to 2.2.2.5 of this document may be followed to verify that construction activity BMPs are properly implemented, maintained and effective.

ATTACHMENT E1

GUIDANCE FOR LOCAL STORM WATER POLLUTION PREVENTION PLAN
AND WET WEATHER EROSION CONTROL PLAN

And Wet Weather Erosion Control Plan

Section 2.2.2.1.3 of this model stormwater management program provided criteria for identifying Priority Projects: Construction projects are divided into two categories according to the amount of soil disturbance:

- 1. Construction projects with less than one acre of disturbed soil.
- 2. Construction projects with one acre and greater of disturbed soil. The category is further subdivided into two subcategories:
 - a. Construction projects between one acre and five acres of soil disturbance.
 - b. Construction projects with five acres and greater of soil disturbance.

Beginning March 10, 2003, the requirements for construction projects with five acres and greater of soil disturbance shall apply to construction projects with one acre and greater of soil disturbance.

Construction Priority Projects require the preparation of a:

- Local Stormwater Pollution Prevention Plan (SWPPP); and a
- Wet Weather Erosion Control Plan (WWECP) if the soil will be disturbed during the rainy season (November 1 to April 15).

The Local SWPPP must be prepared before construction activities begin and must be implemented year-round throughout construction. A WWECP must be prepared prior to each rainy season, and must be implemented throughout that rainy season. This appendix provides guidance for preparing these plans, including sample forms that Permittees may use or provide to the construction contractor.

If a Local SWPPP and WWECP is required, it may be prepared by the owner, the construction contractor or a consultant. Permittees may elect to determine who must prepare the Local SWPPP and WWECP for specific project types. When developing a Local SWPPP or WWECP, the preparer should assess site conditions, identify construction activities with the potential to cause stormwater pollution, and then identify the BMPs that will best suit the construction activities. A well-developed plan will provide sufficient detail to properly implement and maintain the BMPs, yet be sufficiently flexible to allow for minor field modifications without making formal plan amendments.

And Wet Weather Erosion Control Plan

The Local SWPPP and WWECP must include a site map of the project (a copy of the grading or drainage plan may be used) showing:

- The project boundary and/or limits of grading. (Permittees may elect to require site limit maps to extend 50 feet beyond property line and/or grading limits.)
- The footprint of existing facilities and facilities that will be built during construction.
- Specific locations where construction materials, vehicles, and equipment will be stored, handled, used, maintained, and disposed, along with locations of structural measures that will be used to contain these materials on site.
- The existing and final grades of the site, along with any intermediate grades during construction that will significantly affect site drainage patterns.
- The location(s) where runoff from the site may enter storm drain(s), channel(s), and/or receiving water(s).
- Specific locations where erosion and sediment control measures will be installed for each permanent or temporary site drainage pattern that will occur before, during and after construction.

The plan will provide information about the project location, owner, and contractor; and include a brief narrative description on the nature of the construction activity and special site conditions, and a list of BMPs for managing targeted construction activities. The plan will also include a BMP checklist with a discussion of the reasons for selecting or rejecting BMPs such as shown in the attached example.

Suggested formats for a Local SWPPP and WWECP follow.

And Wet Weather Erosion Control Plan

E1.1 LOCAL STORMWATER POLLUTION PREVENTION PLAN

1.1	Project Description and Information
	The name of the project:
	The address or location of the project:
	The building permit number for the project:
	The grading permit number for the project (if applicable):
	The owner/developer's name, address, phone number and contact person:
	Contractor's name, address, phone number and contact person:
	What are the major features that the project will provide? (e.g., low density residential commercial development, etc.)
	What are the estimated construction start and finish dates?

And Wet Weather Erosion Control Plan

	Project Start Date:
	Project Finish Date:
9.	What are the estimated dates during which soil will be disturbed?
	Start Grading:
	Finish Grading:
10	Are there any unique features relating to adjacent water bodies (i.e., in or around a wetland, river, stream, or estuary)?

And Wet Weather Erosion Control Plan

E1.1.2 Best Management Practices

Use the following tables to indicate the BMPs that will be used to control stormwater pollution. Attached additional written documentation if necessary.

E1.1.2.1 General Site Management

	Will BMP Be Used?		If Yes, Explain How	
BMP Description	Yes	No	If No, State Reason	
Site Planning Considerations				
Scheduling (ESC01)				
Preservation of Existing Vegetation (ESC02)				
Construction Practices				
Dewatering Operations (CA001)				
Paving Operations (CA002)				
Structure Construction & Painting (CA003)				
Dust Control (ESC21)				
Vehicle & Equipment Management				
Vehicle & Equipment Cleaning (CA030)				
Vehicle & Equipment Fueling (CA031)				
Vehicle & Equipment Maintenance (CA032)				
Tracking Control				
Stabilized Construction Entrance (ESC24)				
Contractor Training				
Employee/Subcontractor Training (CA040)				

And Wet Weather Erosion Control Plan

E1.1.2.2 Construction Materials and Waste Management

	Will BMP Be Used?		If Yes, Explain How
BMP Description	AP Description Yes No		If No, State Reason
Material Management			
Material Delivery and Storage (CA010)			
Material Use (CA011)			
Spill Prevention and Control (CA012)			
Waste Management			
Solid Waste Management (CA020)			
Hazardous Waste Management (CA021)			
Contaminated Soil Management (CA022)			
Concrete Waste Management (CA023)			
Sanitary/Septic Waste Management (CA024)			

E1.1.3 Site Map Checklist

 The project boundary and/or limits of grading. (Option: 50 feet beyond property line or grading limits)
 The footprint of existing facilities and facilities that will be built during construction.
 The existing and final grades of the site, along with any intermediate grades during construction that will significantly affect site drainage patterns.
 The location(s) where runoff from the site may enter storm drain(s), channel(s), and/or receiving water(s).
 Specific locations where construction materials, vehicles, and equipment will be stored, handled, used, maintained, and disposed, along with locations of structural measures that will be used to contain these materials on site

And Wet Weather Erosion Control Plan

E1.1.4 Certification

As the project architect/engineer of record, I have reviewed the *Best Management Practices Handbooks, California Storm Water Quality Task Force, Sacramento, CA.* I certify that appropriate BMPs will be implemented to effectively minimize the negative impacts of this project's construction activities on storm water quality. The project owner and contractor are aware that the selected BMPs must be installed, monitored, and maintained to ensure their effectiveness. The BMPs not selected for implementation are redundant or deemed not applicable to the proposed construction activities. If at any time, site conditions and/or the County/City official warrant reevaluation and revisions of the chosen BMPs, the appropriate changes will be made without unnecessary delay. I am aware that failure to properly implement and maintain, while under construction, the BMPs necessary to prevent the discharge of pollutants from this project could result in significant penalties and/or delays.

Signed:		
Title:		
Date:		
As the project prepared under qualified perso inquiry of the pathering the intrue, accurate, failing to updated	owner/owner's agent, I certify that this docume my direction or supervision in accordance with a sonnel properly gather and evaluate the information person or persons who manage the system or those penformation, to the best of my knowledge and belief, and complete. I am aware that submitting false at the Local SWPPP to reflect current conditions, plement the Local SWPPP may result in revocation of ons provided by law.	nt and all attachments were ystem designed to assure that n submitted. Based on my ersons directly responsible for the information submitted is nd/or inaccurate information, or failing to properly and/or
Signed:		
Title:		
Date:		

And Wet Weather Erosion Control Plan

E1.2 WET WEATHER EROSION CONTROL PLAN

Project Description and Information
The name of the project:
The address or location of the project:
The building permit number for the project:
The grading permit number for the project (if applicable):
The owner/developer's name, address, phone number and contact person:
Contractor's name, address, phone number and contact person:
What are the major features that the project will provide? (e.g., low density residential commercial development, etc.)

And Wet Weather Erosion Control Plan

8.	What are the estimated construction start and finish dates?
	Project Start Date:
	Project Finish Date:
9.	What are the estimated dates during which more than 1 acre or 50,000 ft ³ of soil will be disturbed?
	Start Grading:
	Finish Grading:
10	Are there any unique features relating to adjacent water bodies (i.e., in or around wetland, river, stream, or estuary)?

And Wet Weather Erosion Control Plan

E1.2.2 Best Management Practices

Use the following checklists to indicate the BMPs that will be used to control wet weather erosion and off site sedimentation. Attach additional written documentation if necessary.

E1.2.2.1 Erosion Control Practices

	Will BMP Be Used? MP Description Yes No		If Yes, Explain How	
BMP Description			If No, State Reason	
Site Planning Considerations				
Scheduling (ESC01)				
Preservation of Existing Vegetation (ESC02)				
Vegetative Stabilization				
Seeding & Planting (ESC10)				
Mulching (ESC11)				
Physical Stabilization				
Geotextiles & Mats(ESC20)				
Dust Control (ESC21)				
Temporary Stream Crossing (ESC22)				
Construction Road Stabilization (ESC23)				
Diversion of Runoff				
Earth Dike (ESC30)				
Temporary Drains & Swales (ESC31)				
Slope Drain (ESC32)				
Velocity Reduction				
Outlet Protection (ESC40)				
Check Dams (ESC41)				
Slope Roughening/Terracing (ESC42)				

And Wet Weather Erosion Control Plan

E1.2.2.2 Sediment Control Practices

	Will BMP Be Used?		If Yes, Explain How	
BMP Description	Yes	No	If No, State Reason	
Sediment Control	Sediment Control			
Silt Fence (ESC50)				
Straw Bale Barrier (ESC51)				
Sand Bag Barrier (ESC52)				
Brush or Rock Filter (ESC53)				
Storm Drain Inlet Protection (ESC54)				
Sediment Trap (ESC55)				
Sediment Basin (ESC56)				

E1.2.3 Site Map Checklist

 The project boundary and/or limits of grading. (Option: 50 feet beyond property line or grading limits)
 The footprint of existing facilities and facilities that will be built during construction.
 The existing and final grades of the site, along with any intermediate grades during construction that will significantly affect site drainage patterns.
 The location(s) where runoff from the site may enter storm drain(s), channel(s), and/or receiving water(s).
 Specific locations where erosion and sediment control measures will be installed for each permanent or temporary site drainage pattern that will occur before, during and after construction.

And Wet Weather Erosion Control Plan

E1.2.4 Certification

As the project architect/engineer of record, I have reviewed the *Best Management Practices Handbooks, California Storm Water Quality Task Force, Sacramento, CA.* I certify that appropriate BMPs will be implemented to effectively minimize the negative impacts of this project's construction activities on storm water quality. The project owner and contractor are aware that the selected BMPs must be installed, monitored, and maintained to ensure their effectiveness. The BMPs not selected for implementation are redundant or deemed not applicable to the proposed construction activities. If at any time, site conditions and/or the County/City official warrant reevaluation and revisions of the chosen BMPs, the appropriate changes will be made without unnecessary delay. I am aware that failure to properly implement and maintain, while under construction, the BMPs necessary to prevent the discharge of pollutants from this project could result in significant penalties and/or delays.

Signed:					
Title:					
Date:					
As the project prepared under qualified persinquiry of the gathering the true, accurate, failing to updadequately improved the project	t owner/owner's agentry my direction or superconnel properly gather person or persons who information, to the best and complete. I am attention to the Local SWPPP plement the Local SWPP points provided by law.	at, I certify that the revision in accordant and evaluate the manage the system to f my knowledge aware that submit to reflect current	his document nce with a system information of or those persect and belief, the ting false and conditions, or	t and all atta stem designed submitted. sons directly he information d/or inaccura r failing to p	d to assure that Based on my responsible for on submitted is te information properly and/or
Signed:					
Title:					
Date:					

ATTACHMENT E2

BMP SELECTION PROCESS FOR CONSTRUCTION PROJECTS

In planning a construction project, the developer/contractor must answer three key questions with respect to storm water quality control: (1) what kind of water quality controls are needed?; (2) where should the controls be implemented?; and (3) how much control is enough? In order to answer these questions, the developer/contractor should use a documentable, defensible process to identify potential water quality problems, develop design objectives, formulate and evaluate alternatives, select the most appropriate alternatives, and design the plan. A suggested BMP selection process particularly applicable to Construction Projects one acre and greater and projects subject to the California General Permit for Storm Water Discharges Associated with Construction Activity is described herein.

E2.1 DEVELOP GOALS AND OBJECTIVES

Site-specific conditions of Development Construction Projects determine which BMPs are most applicable for a site. The BMPs selected for a site should fulfill the following goals and objectives:

- Be appropriate for the given site constraints
- Have a beneficial or neutral impact on the environment
- Provide moderate to high pollutant source control and/or removal capability
- Meet regulatory requirements
- Minimize changes in hydrological conditions
- Be cost effective.

E2.2 BMP SELECTION CRITERIA

In order to fulfill the above goals and objectives, BMPs should be selected by using appropriate selection criteria that serve to identify the capabilities and limitations of each BMP. Criteria to be considered in screening and selecting BMPs for the construction stage are:

- Site factors (e.g., slope, high water table, soils, potential risks below or downstream of site, etc.)
- Project Characteristics (e.g. type, size, and duration of project)
- Pollutant avoidance (source control) or removal capability (effectiveness)
- Cost of implementation
- Environmental compatibility

These criteria may be given equal weight during the BMP selection process, or they may be weighted differentially, depending on the relative importance of each factor for the particular project.

Several general principals that should be considered in selecting erosion and sediment control BMPs include:

- Prevention of pollutant release is superior to pollutant capture later. Select source control BMPs as a first step.
- Selection of BMPs must depend on site characteristics and the construction plan.
- The proper first step is a site drainage analysis. Determine where runoff will enter, cross and exit the site.
- Divert runoff from exposed areas wherever possible.
- Existing vegetation is the most effective erosion control.
- Limit and phase clearing.
- Incorporate natural drainage features whenever possible, using adequate buffers and protecting areas where flow enters the drainage system.
- Minimize slope length and steepness.
- Keep runoff velocities low.
- Reduce the tracking of sediment off-site.
- Select and install controls that can be maintained.

E2.3 NOMINATE AND EVALUATE ALTERNATIVES

A number of BMPs applicable to Development Construction Projects have been identified in Section 2.4 of this Program. The BMPs were nominated from the *California Storm Water Best Management Practices Handbooks*. Other BMPs from other manuals and sources were also considered.

E2.4 SELECT BEST ALTERNATIVES

Based on the list of recommended BMPs for Development Construction Projects provided in this Model Program, the developer/contractor should use the selection criteria described above to select the best alternatives for the project conditions, characteristics, and concerns. This may be done numerically, by weighting the selection criteria, rating each BMP against each criteria, and summing up a weighted rating for each BMP, which then becomes a relative ranking. Or the

selection process may be done in a more subjective, non-numerical way using experience and professional judgment to select the best alternative BMPs. Either way, the developer/contractor should document the selection process and provide support for the selected system of controls.

E2.5 DESIGN, IMPLEMENT, and MAINTAIN the BMPs

After the appropriate BMPs are selected for a given project, the developer/contractor should document those selected on the standard checklist and show the selected BMPs on the plans, as discussed in Section 3 of this document. It is important that the control measures be properly installed and maintained. Improper installation and poor maintenance are the most common reasons for storm water controls to not function as designed. Therefore, it is incumbent on the designer to provide sufficient information in the project plans and specifications for their proper installation, and to provide adequate guidance on their proper maintenance so that the installation and maintenance procedures may be incorporated into the state SWPPP, Local SWPPP, or WWECP.

ATTACHMENT E3

CONTRACTOR SELF-INSPECTION FORM

E3.1 CONSTRUCTION SITE INSPECTION CHECKLIST Inspected By:

Project:				
Contracto	or:			
Date: _				_
Check "Y	es" or "No"	or "N/A" if not	applica	able.
YES	NO	N/A		
			1.	Has there been rain at the site since the last inspection?
			2.	Are all sediment barriers (e.g., sandbags, straw bales, and silt fences) in place in accordance with the Plan and are they functioning properly?
			3.	If present, are all exposed slopes protected from erosion through the implementation of acceptable soil stabilization practices?
			4.	If present, are all sediment traps/basins installed and functioning properly?
			5.	Are all material handling and storage areas reasonably clean and free of spills, leaks, or other deleterious materials?
			6.	Are all equipment storage and maintenance areas reasonably clean and free of spills, leaks, or any other deleterious materials?
			7.	Are all materials and equipment properly covered?
			8.	Are all external discharge points (i.e., outfalls) reasonably free of any noticeable pollutant discharges?
			9.	Are all internal discharge points (i.e., storm drain inlets) provided with inlet protection?

Check "Y	es" or "No"	or "N/A" if not a	applicab	ole.	
YES	NO	N/A 	10	Are all external discharge points reasonal significant erosion or sediment transport	
			11.	Are all BMPs identified on the Plan insta proper locations and according to the spe for the Plan?	lled in the
			12.	Are all structural control practices in goo maintained in functional order?	d repair and
			13.	Are all on-site traffic routes, parking, and equipment and supplies restricted to area in the Plan for those uses?	
			14.	Are all locations of temporary soil stocky construction materials in approved areas contained?	
			15.	Are all seeded or landscaped areas prope	rly maintained?
			16.	Are sediment controls in place at discharthe site?	ge points from
			17.	Are slopes free of significant erosion?	
			18	Are all points of ingress and egress from provided with stabilized construction ent	
			19.	Is sediment, debris, or mud being cleaned roads at intersections with site access roa	
			20.	Does the Plan reflect current site condition	ons?
	that must b			questions (except Number 1), describe a problem and when the corrective action	
Checklis	st Item	Corr	ective	Action(s) Needed Date to	be Completed

E3.2 INSPECTION LOG

The site shall be inspected before and after storm events with 0.25 inches or greater predicted or actual precipitation, and documented on the Construction Site Inspection Checklist. Incidents of noncompliance must be reported to the Engineer. A log of all inspections shall be kept current.

		T	ype of Inspec	tion	Observations
Date	Inspector	Routine	Pre-Storm	Post-Storm	(If post-storm inspection, note size of storm in inches)

ATTACHMENT E4

Permittee Construction Guidelines and Forms

E4.1 CONSTRUCTION SITE INSPECTION CHECKLIST

STORM WATER POLLUTION CONTROL REQUIREMENTS FOR CONSTRUCTION SITES ONE ACRE AND LESS IMPLEMENTATION REPORT

Project	Name/TR #:			
Site Add	dress:			
Permit/0	Contract Number: District Office:			
CONST	RUCTION SITES ONE ACRE AND LESS - RELATED BMPs	Yes	No	N/A
1.	Attachment A on-site?			
2.	Are eroded sediments and other pollutants retained on site and not transported from the site via sheetflow, swales, area drains, natural drainage, or wind? If No, Explain:			
3. If No, I	Are stockpiles of earth and other construction related materials protected from being transported from the site by forces of wind or water? Explain:			
4.	Are fuels, oils, solvents, and other toxic materials stored in accordance with their listings and not contaminating the soil and surface water? If No, Explain:			
5.	Is excess or waste concrete washed into a contained area and not being washed into the public way or any other drainage system? If No, Explain:			

6.	Is trash and other construction related solid wastes being deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind? If No, Explain:		
7. Is the c	Are sediments and other materials not being tracked from the site by vehicle traffic? onstruction site's entrance stabilized to inhibit sediments from being deposited into the public way?		
	Are accidental depositions swept up immediately and not washed down by rain or other means? If No, Explain:		
8.	Are slopes with disturbed soils or denuded of vegetation stabilized to inhibit erosion by wind and water? If No, Explain:		
Inspec	eted by: Date: Phone:		

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STORM WATER POLLUTION CONTROL REQUIREMENTS FOR CONSTRUCTION SITES One acre and greater IMPLEMENTATION REPORT

Project	Name	e / TR #	#: <u> </u>				_
Site Add	dress:		_				
			_				
Permit/0	Contra	act Nur	mber:	District Office:			
Categor	ry:		feet of im Large	n re acres, and up to but less than 5 acres of disturbed soil or creating more than 40, pervious area) or more of disturbed soil)	000 s	quar	·e
					Yes	No	N/A
1.	Atta	chmen	t A (Storm '	Water Pollution Control Requirements for Construction Activities) on-site?			
2.	Atta	chmen	t B (List of	Best Management Practices for Construction Activity specific to site) on-site?			
3.	Atta	chmen	t C (Certific	cation) on-site?			
4.	Eros	ion Co	ontrol Plan	on-site?			
5.	Loca	l Storr	m Water Po	ollution Prevention Plan (local SWPPP) on-site?			
6.	Atta	chmen	t D (Owner	's NOI/SWPPP Certification Form) on-site?**(1)			
7.	Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) on-site?**(1)						

For Large Construction Sites only.

(1) Effective March 10, 2003, these will apply for all construction sites one acre and greater.

CON REL (See C		ION SITE	Legend: ① not installed properly ② installed but not maintained properly ③ installed properly, but ineffective ④ moderately effective ⑤ very effective	Effectiveness Rating
Const	ruction Praction	ces		
8.	□ CA001	Dewatering Operations		1 2 3 4 5
9.	□ CA002	Paving Operations		1 2 3 4 5
10.	□ CA003	Construction and Painting		1 2 3 4 5

For Medium Construction Sites only.

Materia	al Managemer	nt	
11.	□ CA010	Material Delivery and Storage	1 2 3 4 5
		, , , , , , , , , , , , , , , , , , , ,	
12.	□ CA011	Material Use	1 2 3 4 5
13.	□ CA012	Spill Prevention and Control	1 2 3 4 5
10.	- 0/1012	- I overliet and control	

CON	NSTRUCT	ION RELATED BMPS - CONTINUED	Effectiveness Rating
Waste	Managemen		
14.	□ CA020		1 2 3 4 5
15.	□ CA021	Hazardous Waste Mgt.	1 2 3 4 5
16.	□ CA022	Contaminated Soil Mgt	1 2 3 4 5
17.	□ CA023	Concrete Waste Mgt.	1 2 3 4 5
18.	□ CA024	Sanitary/Septic Waste Mgt.	1 2 3 4 5
Vehic	le and Equipr	nent Management	
19.	□ CA030	Vehicle and Equip. Cleaning	1 2 3 4 5
20.	□ CA031	Vehicle and Equip. Fueling	1 2 3 4 5
21.	□ CA032	Vehicle and Equip. Maintenance	1 2 3 4 5
Veget	ation Stabiliz	ation	
22.	□ ESC10		1 2 3 4 5
23.	□ ESC11	Mulching	1 2 3 4 5
Physic	cal Stabilizati	on	
24.		Geotextiles and Mats	1 2 3 4 5
25.	□ ESC21	Dust Control	1 2 3 4 5
26.	□ ESC22	P. Temp. Stream Crossing	1 2 3 4 5
27.	□ ESC23	Road Stabilization	1 2 3 4 5
28.	□ ESC24	Stabilized Entrance	1 2 3 4 5
Divers	sion of Runof	f	
29.	□ ESC30	Earth Dike	1 2 3 4 5
30.	□ ESC31	Temp. Drains and Swales	1 2 3 4 5
31.	□ ESC32	2 Slope Drain	1 2 3 4 5
Veloc	ity Reduction		
32.	□ ESC40		1 2 3 4 5
33.	□ ESC41	Check Dams	1 2 3 4 5
34.	□ ESC42	2 Slope Roughening/Terracing	1 2 3 4 5
			1

Diversi	on of Runoff	
35.	□ ESC50	Silt Fence 1 2 3 4 5
36.	□ ESC51	Straw Bale Barrier ① ② ③ ④ ⑤
0.7	- 50050	Sand Bag Barrier
37.	□ ESC52	Sand Bag Barrier
38.	□ ESC53	Brush or Rock Filter
00.		
39.	□ ESC54	Drain Inlet Protection
		1 2 3 4 5
40.	□ ESC55	Sediment Trap
41.	_ ESCE6	Sediment Basin
41.	□ E3C30	Seulitetit Dasiti
		·
Inspecte	ed bv:	Date: Phone:
Inspecte	ed by:	Date: Phone:

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STORM WATER POLLUTION CONTROL Annual inspection form FOR CONSTRUCTION SITES One acre and greater

ect Name / TR #:				
Address:				
nit/Contract Number:				District Office:
Requirement	Yes	No	N/A	Correction Action
Preservation of Existing Vegetation				
Is temporary fencing provided to preserve vegetation in areas where no construction activity is planned?				
Location:	1			
Location:	1			_
Location:	1			
Temporary Soil Stabilization	1			
Does the applied temporary soil stabilization provide 100% coverage for the required areas?				
Are any non- vegetated areas that may require temporary soil stabilization?				
Is the area where temporary soil stabilization required free from visible erosion?				
Location:	1			
Temporary Linear Sediment Barriers				
Are temporary linear sediment barrier properly installed in accordance with the details, functional and maintained?				
Are temporary linear sediment barrier free from accumulated litter?				
Is the built-up sediment less than 1/3 the height of the barrier?				
Are cross barriers installed where necessary and properly spaced?				
Location:	1			_
Location:	†			

Requirement	Yes	No	N/A	Correction Action
Location:				
Location:				
Storm Drain Inlet Protection				
Are storm drain inlets internal to the project properly protected with inlet protection?				
Are storm drain inlet protection devices in working order and being properly maintained?				
Location:				
Desiliting Basins				
Are basins maintained to provide the required detention/retention?				
Are basin controls (inlets, outlets, diversion, weirs, spillways, and racks) in working orders?				
Location:				
Stockpiles				
Are all locations of temporary stockpiles, including soil, hazardous waste, and construction materials in approved areas?				
Are stockpiles protected from run-on, run-off from adjacent areas and from winds?				
Are stockpiles located at least 50 feet from concentrated flows, downstream drainage courses and storm drain inlets?				
Are required covers and/or perimeter controls in place?				
Location:				
Concentrated Flows				
Are concentrated flow paths free of visible erosion?				
Location:				
Location:				

Requirement	Yes	No	N/A	Correction Action
Location:				
Tracking Control				
Are sediments and other materials being tracked from the site by vehicle traffic?				
Are points of ingress/egress to public/private roads inspected and swept and vacuumed daily?				
Are all paved areas free of visible sediment tracking or other particulate matter?				
Location:				
Wind Erosion Control				
Are dust control measures used to stabilize soils?				
Location:				
Dewatering Operation				
Are sediment controls used to remove sediment from water generated by dewatering?				
Location:				
Vehicle & Equipment Fueling, Cleaning, and Maintenance				
Are vehicle and equipment fueling, cleaning and maintenance areas reasonably clean and free of spills, leaks, or any other deleterious materials?				
Are vehicle and equipment fueling, cleaning and maintenance activities performed on an impermeable surface in dedicated areas?				
If no, are drip pans used?				
Are dedicated fueling, cleaning and maintenance areas located at least 15m away from downstream drainage facilities and water courses and protected from run-on and runoff?				
Is on-site cleaning limited to washing with water (no soap, soaps substitutes, solvents, or steam)?				
On each day of use, are vehicles and equipment inspected for leaks and if necessary, repaired?				

Requirement	Yes	No	N/A	Correction Action
Location:				
Location:				
Location:				
Waste Management & Materials Pollution Control				
Are Material storage areas and washout areas protected from run-on and runoff, and located at least 50 feet from concentrated flows and downstream drainage facilities?				
Are materials handling and storage areas clean; organized; free of spills, leaks, or any other deleterious materials; and stocked with appropriate clean-up supplies?				
Are liquid materials, hazardous materials, and hazardous wastes stored in temporary containment facilities?				
Are bagged and boxed materials stored on pallets?				
Are hazardous materials and wastes stored in appropriate, labeled containers?				
Are proper storage, clean-up, and spill reporting procedures for hazardous materials posted in open, conspicuous and accessible locations adjacent to storage areas?				
Are temporary containment facilities free of spills and rainwater?				
Are temporary containment facilities and bagged/boxed materials covered?				
Are temporary concrete washout facilities designated and being used?				
Are temporary washout facilities functional for receiving and containing concrete waste and are concrete residues prevented from entering the drainage system?				
Do temporary washout concrete facilities provide sufficient volume and freeboard for planned concrete operations?				
Are concrete wastes, including residues from cutting and grinding, contained and disposed of offsite or in concrete washout facilities?				
Are spills from mobile equipment fueling and maintenance properly contained and cleaned up?				
Is the site free of litter?				
Are trash receptacles provided in the contractor's yard, field trailer areas, and at location where workers congregate for lunch and break periods?				

Requirement	Yes	No	N/A	Correction Action
Is litter from work areas within the construction limits of the project site collected and placed in watertight dumpsters?				
Are the contents of waste management receptacles properly protected from contact with storm water or from being dislodged by winds?				
Are waste management receptacles filled at or beyond capacity?				
Location:				
Temporary Water Body Crossing or Encroachment				
Are temporary water body crossings and encroachments constructed as shown on the plans or as approved by the engineers?				
Location:				
Is there any evidence of illicit discharges or illegal dumping on the project sites?				
Location:				
Are discharge points and discharged flows free from noticeable pollutants?				
Are discharge points free of any significant erosion or sediment transport?				
Location:				
WWECP/LSWPPP Update				
Does the WWECP/LSWPPP, project schedules/Water Pollution Control Schedule adequately reflect the current site conditions and contractors operations?				

Attachment E4 **Permittee Construction Guidelines and Forms**

Requirement	Yes	No	N/A	Correction Action
Are all BMPs shown on the WWECP installed in the proper location(s) and according to the details for the plans?				
Location:				
Location:				
Location:				
General				
Are there any other potential water pollution control concerns at the site?				
Location:				
		1	1	•
Inspected by:				_ Date: Phone:

Attachment A

Storm Water Pollution Control Requirements for Construction Activities Minimum Water Quality Protection Requirements for All Development Construction Projects/Certification Statement

The following is intended as an attachment for construction and grading plans and represent the minimum standards of good housekeeping which must be implemented on all construction sites regardless of size.

	Eroded sediments and other pollutants must be retained on site and may not be transported from the site via sheetflow, swales, area drains, natural drainage courses or wind.				
	Stockpiles of earth and other construction related materials must be protected from being				
	transported from the site by the forces of wind or water.				
	Fuels, oils, solvents and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of in a proper manner. Spills may not be washed into the drainage system.				
	Non-storm water runoff from equipment and vehicle washing and any other activity shall				
	be contained at the project site.				
	Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on site until they can be disposed of as solid waste.				
	Trash and construction related solid wastes must be deposited into a covered receptacle to				
	prevent contamination of rainwater and dispersal by wind.				
	· · · · · · · · · · · · · · · · · · ·				
	Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to inhibit erosion by wind and water.				
	Other				
require	e project owner or authorized agent of the owner, I have read and understand the ements listed above, necessary to control storm water pollution from sediments, erosion, instruction materials, and I certify that I will comply with these requirements.				
Print N	Jame				
	(Owner or authorized agent of the owner)				
Signati	ure Date				
J	(Owner or authorized agent of the owner)				

Attachment B

BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITY*

The following is intended as a correction list for \underline{all} construction projects and for grading review.

I. The following BMPs apply to all jobs:

CA010 MATERIAL DELIVERY AND STORAGE

Provide a material storage area with secondary containment and/or weather protection. Note the maintenance practices and schedule proposed for this area.

CA011 MATERIAL USE

Hazardous materials, fertilizers, pesticides, plasters, solvents, paints, and other compounds must be properly handled in order to reduce the risk of pollution or contamination. Training and information on procedures for the proper use of all materials must be available to the employees that apply such materials. NOTE

CA012 SPILL PREVENTION AND CONTROL

Identify spill prevention and control measures that will be taken for all proposed materials. Identify the methods, by which accidental spills will be cleaned and properly disposed of. NOTE

CA020 SOLID WASTE MANAGEMENT

Provide designated waste collection areas and containers. Arrange for regular disposal. Provide covered storage with secondary containment. Containers are required to protect waste from rain to prevent water pollution and prevent wind dispersal.

CA021 HAZARDOUS WASTE MANAGEMENT

Hazardous materials must be disposed of in accordance with State and Federal regulations. Identify the proposed methods of disposal and any special handling contracts that may be applicable. NOTE

ESC24 STABILIZED CONSTRUCTION ENTRANCE

A stabilized entrance is required for all construction sites to ensure that dirt and debris are not tracked onto the road or adjacent property. Maintenance of such a system is required for the duration of the project. Such stabilization may be of rock or paved.

ESC55 SEDIMENT TRAP

Eroded sediments must be retained on site and not permitted to enter the drainage system.

II. The following BMPs apply to site construction:

CA003 STRUCTURE CONSTRUCTION AND PAINTING

Proper disposal of all wastes is required to keep pollutants from the storm water runoff which will be conveyed into the storm drain system. The proper handling of all materials is required. NOTE

CA023 CONCRETE WASTE MANAGEMENT

Store dry and wet materials under cover. Avoid on-site washout except in designated areas away from drains, ditches, streets, and streams. Concrete waste deposited on site shall set-up, be broken apart, and disposed of properly. Containment and proper disposal is required for all concrete waste. NOTE

- * The above Best Management Practices are detailed and explained in the $\underline{\text{California Storm Water}}$ Best Management Handbook, March 1993.
 - CA These BMPs are found in Chapter 4: Contractor Activities
 - ESC These BMPs are found in Chapter 5: Erosion and Sediment Control

CA024 SANITARY/SEPTIC WASTE MANAGEMENT

Untreated raw wastewater is not to be discharged or buried. Sanitary sewer facilities on site are required to be in compliance with local health agency requirements. Sanitary or septic wastes must be treated or disposed of in accordance with state and local requirements. NOTE

III. For <u>general</u> site applications the following BMPs may apply:

ESC02 PRESERVATION OF EXISTING VEGETATION

Identify the areas in which existing vegetation will remain undisturbed. Sensitive areas which may require preservation include steep slopes, watercourses, and wooded sites. Protection is required for vernal pools, wetlands, marshes, and oak tree sites.

ESC11 MULCHING

Identify the specific locations that mulching will be used as a soil stabilizer. Specify the specific material mixture that the mulch will consist of.

ESC20 GEOTEXTILE

Identify the specific locations that geotextile mats will be used as a soil stabilizer. Include the manufacture specifications for the brand of matting to be used .

ESC21 DUST CONTROL

Dust control is required for clearing, grading, construction, soil stockpiling, and site work during dry weather, as well as for unimproved roadways. Identify the means by which dust control will be performed on site and note the frequency in which it will occur. Non-compliance will be reported to the South Coast Air Quality Management District for additional enforcement.

ESC41 CHECK DAMS

Check dams are required to reduce the velocity of concentrated flow. Identify the specific locations and design of the proposed check dams. Regular maintenance is required for such devices.

ESC50 SILT FENCE

A silt fence is useful for retention of sediment in the location of sheet flow or wind erosion. Identify the specific locations silt fences will be used for sediment retention. Such devices require a maintenance schedule.

ESC51 STRAW BALE BARRIER

Identify the specific locations where straw bales will be used for sediment retention or velocity reducers. A maintenance schedule is required for such devices.

ESC52 SAND BAG BARRIER

Sand bag barriers are useful in a great variety of locations for the control of erosion. Sand bags will function in a similar manner as check dams, barriers, clarifiers and many other types of erosion control devices with similar uses. Sand bag devices may apply to a greater number of sites for reasons of versatility and standard use. Identify the specific locations and design of sand bag barriers and note the schedule by which they will be maintained.

ESC53 BRUSH OR ROCK FILTER

Brush or rock filters require special approval for proper application and construction. The design engineer must approve the application, on site, before the County inspection in order to ensure the minimum quality of construction. Such devices will only be considered for approval on minor applications.

ESC54 STORM DRAIN INLET PROTECTION

All inlets which receive sediment laden runoff require storm drain inlet protection. Sediment traps, filter fabric fences, sand bag filters, gravel and wire mesh filters, are examples of inlet protection which may be applied at such locations. Identify the methods of protecting each inlet.

IV. The following BMPs will apply to grading projects:

CA001 DEWATERING OPERATIONS

Sediment control devices must be provided in order to prevent discharge of pollutants in the storm water discharge. Testing for toxic substances and petroleum products and clearance from the Regional Water Quality Control Board is required.

CA030 VEHICLE AND EQUIPMENT CLEANING

Prevent discharge of pollutants to storm water. Minimize water use. Identify the location that all vehicles and equipment will be cleaned. Provide secondary containment, or collection of waste waters. Use biodegradable, phosphate-free soaps. Steam cleaning waste must be contained on-site, collected and properly disposed of.

CA031 VEHICLE AND EQUIPMENT FUELING

Perform all refueling at designated areas with containment to prevent spills. Provide cover and/or secondary containment for stored fuels.

CA032 VEHICLE AND EQUIPMENT MAINTENANCE

On site maintenance must be in a designated dry area with secondary containment. Segregate and recycle all vehicle waste and equipment. Do not allow ground spills or discharge into storm water. Identify the location, maintenance activities will be performed, and the method of containment.

ESC01 SCHEDULING

Proper sequencing should be scheduled in order to reduce the site erosion potential. Minimize disturbance of highly erodible areas. Plan around heavy rains and make provisions for year round stabilization.

ESC10 SEEDING AND PLANTING

Seeding and Planting is required for soil stabilization for sloped areas and disturbed ground. Such stabilization may be necessary as a temporary measure for borrow sites.

ESC22 TEMPORARY STREAM CROSSING

A temporary culvert, Ford or Bridge is required for all stream crossings and shall be in use for a period not to exceed one year. Crossings must be provided for all perennial and intermittent streams.

ESC30 EARTH DIKE

Such a device is required for water runoff control or containment and is required to be engineered as part of an overall erosion and construction related pollution control plan.

ESC31 TEMPORARY DRAINS AND SWALES

Drains and swales are required as specified by an engineer for a designed erosion and construction related pollution plan.

ESC32 SLOPE DRAIN

A slope drain is required to convey runoff from the top of a slope via a pipe or lined channel to a stable discharge point at the bottom of the slope. Such devices are required to be engineered as part of an erosion and construction related pollution control plan.

ESC40 OUTLET PROTECTION

Outlet protection is required to reduce the erosion potential of high velocity concentrated flow from pipes or other drainage devices. Identify the methods and locations of each outlet protection. A regular maintenance schedule is required for such devices in order to ensure proper function at all times.

ESC42 SLOPE ROUGHENING/TERRACING

Identify the slopes to be terraced or roughened for stabilization. Note the seed mixture and method of irrigation, if any, to be used.

ESC56 SEDIMENT BASIN

The application of a sediment basin requires an engineer approval with calculations to justify the capacity of the device. A regular maintenance schedule is required for the sediment basin and outlet protection is required for the outflow.

V. The following BMPs will apply to private roads and subdivision projects with road construction:

CA002 PAVING OPERATIONS

Where paving will occur on private property, proper precautions and practices must be performed to ensure that pollutants do not become deposited into the storm runoff and that all spills, wastes, and products from various activities are disposed of properly.

ESC23 CONSTRUCTION ROAD STABILIZATION

All private roads and parking areas require stabilization by the application of rock, watering or other form of dust control, or paving. Maintenance and necessary post construction BMP's are required for all roadways.

CA023 CONCRETE WASTE MANAGEMENT

Store dry and wet materials under cover. Avoid on-site washout except in designated areas away from drains, ditches, streets, and streams. Concrete waste deposited on site shall set-up, be broken apart, and disposed of properly. Containment and proper disposal is required for all concrete waste. NOTE

VI. The following BMPs may apply to sites with certain existing conditions or due to complex BMPs being implemented:

CA040 EMPLOYEE/SUBCONTRACTOR TRAINING

Integrate training regarding storm water quality management into existing training programs.

CA022 CONTAMINATED SOIL MANAGEMENT

Verify soil conditions on suspect sites by performing site assessment and regular inspections for discoloration, odors, or other signs of contamination. See Table 4.2 of the California Storm Water BMP Handbook for disposal alternatives. Proper handling and disposal is required. NOTE

Attachment C Certification

As the project architect/engineer of record, I have reviewed the *Best Management Practices Handbooks, California Storm Water Quality Task Force, Sacramento, CA.* I certify that appropriate BMPs will be implemented to effectively minimize the negative impacts of this project's construction activities on storm water quality. The project owner and contractor are aware that the selected BMPs must be installed, monitored, and maintained to ensure their effectiveness. The BMPs not selected for implementation are redundant or deemed not applicable to the proposed construction activities. If at any time, site conditions and/or the County/City official warrant reevaluation and revisions of the chosen BMPs, the appropriate changes will be made without unnecessary delay. I am aware that failure to properly implement and maintain, while under construction, the BMPs necessary to prevent the discharge of pollutants from this project could result in significant penalties and/or delays.

Signed:		
Title:		
Date:		

Attachment D Owner's NOI/SWPPP Certification Form

National Pollutant Discharge Elimination System (NPDES) is the portion of the Clean Water Act that applies to protection of receiving waters. Construction activity that will disturb a ground surface area of 5 acres or more (about 220,000 square feet or 2.02 hectares), or if the project results in the disturbance of less than 5 acres of soil but is part of a larger common plan of development or site that exceeds 5 acres, is subject to requirements of the California General Permit for Storm Water Discharges Associated with Construction Activity (Permit No. CAS004001) under the NPDES Program. A Notice of Intent (NOI) is required to be filed with the SWRCB and a Storm Water Pollution Prevention Plan (SWPPP) is required to be prepared and implemented. Proof of a Waste Discharger Identification (WDID) Number is required as proof that the NOI and SWPPP were submitted to SWRCB.

Site Address or Tract No:		Permit No:	
Owner:	Contractor:		
I have read and understand the re			
Owner or Authorized Rep	resentative	Date	
In compliance with the above rethe State Water Resources Contrbeen prepared.			
Owner or Authorized Rep	resentative	Date	

ATTACHMENT E5

BMP CHECKLIST

E5.1 EROSION CONTROL PRACTICES

	Will BMP Be Used?		If Yes, Explain How
BMP Description	Yes	No	If No, State Reason
Site Planning Considerations			
Scheduling (ESC01)			
Preservation of Existing Vegetation (ESC02)			
Vegetative Stabilization	•		
Seeding & Planting (ESC10)			
Mulching (ESC11)			
Physical Stabilization	L		
Geotextiles & Mats (ESC20)			
Dust Control (ESC21)			
Temporary Stream Crossing (ESC22)			
Construction Road Stabilization (ESC23)			
Diversion of Runoff		<u> </u>	
Earth Dike (ESC30)			
Temporary Drains & Swales (ESC31)			
Slope Drain (ESC32)			
Velocity Reduction		<u> </u>	
Outlet Protection (ESC40)			
Check Dams (ESC41)			
Slope Roughening/Terracing (ESC42)			

E5.2 SEDIMENT CONTROL PRACTICES

	Will BMP Be Used?		If Yes, Explain How
BMP Description	Yes	No	If No, State Reason
Silt Fence (ESC50)			
Straw Bale Barrier (ESC51)			
Sand Bag Barrier (ESC52)			
Brush or Rock Filter (ESC53)			
Storm Drain Inlet Protection (ESC54)			
Sediment Trap (ESC55)			
Sediment Basin (ESC56)			

E5.3 TRACKING CONTROL PRACTICES

	Will I Be Us		If Yes, Explain How
BMP Description	Yes	No	If No, State Reason
Tracking Control			
Stabilized Construction Entrance (ESC24)			

E5.4 NON-STORMWATER AND MATERIAL AND WASTE MANAGEMENT PRACTICES

	Will BMP Be Used?		If Yes, Explain How	
BMP Description	Yes	No	If No, State Reason	
Construction Practices	•	•		
Dewatering Operations (CA001)				
Paving Operations (CA002)				
Structure Construction & Painting (CA003)				
Vehicle & Equipment Management				
Vehicle & Equipment Cleaning (CA030)				
Vehicle & Equipment Fueling (CA031)				
Vehicle & Equipment Maintenance (CA032)				
Material Management				
Material Delivery and Storage (CA010)				
Material Use (CA011)				
Spill Prevention and Control (CA012)				
Waste Management				
Solid Waste Management (CA020)				
Hazardous Waste Management (CA021)				
Contaminated Soil Management (CA022)				
Concrete Waste Management (CA023)				
Sanitary/Septic Waste Management (CA024)				
Contractor Training		ı		
Employee/Subcontractor Training (CA040)				