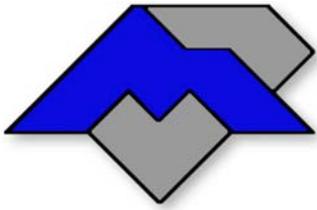


Appendix K.1

DESCP/SWPPP



Merrell-Johnson Engineering, Inc.
CIVIL ENGINEERING ♦ SURVEYING

**CONSTRUCTION DRAINAGE, EROSION, AND SEDIMENT CONTROL /
STORMWATER POLLUTION PREVENTION PLAN**

For

MOJAVE SOLAR PROJECT
HARPER DRY LAKE, CA

Prepared For:

MOJAVE SOLAR LLC
Victorville, CA
July, 2009

Prepared by:

Merrell-Johnson Engineering, Inc.

12138 Industrial Blvd., Suite 240
Victorville, CA 92395
(760) 241-6146

Job No. 3001

Brad S. Merrell
Principal Engineer
R.C.E. 49423 Exp. 09/30/10

12138 Industrial Blvd., Suite 240 • Victorville, CA 92395 • (760) 241-6146 • Fax (760) 241-0566
128 E. Fredricks St. • Barstow, CA 92311 • (760) 256-2068 • Fax (760) 256-0418

INTRODUCTION

This Administrative Draft of the Construction Drainage, Erosion, and Sediment Control / Stormwater Pollution Prevention Plan is submitted as part of the “Application for Certification” for the Mojave Solar Project. Upon completion of the final improvement plans for the project, including the final grading, drainage, and erosion control plans, this DESC/SWPPP plan will be finalized, signed by the engineer of record, and submitted to the government agencies having jurisdiction over the project.

Storm Water Pollution Prevention Plan

For:

MOJAVE SOLAR PROJECT

ADMINISTRATIVE DRAFT

GRADING PERMIT: _____

BUILDING PERMIT: _____

Prepared for:

ABENGOA SOLAR INC.

13911 Park Avenue, Suite 206

Victorville, CA 92392

Contractor:

(tba)

Project Site Location/Address:

Harper Dry Lake, CA

Contractor's Storm Water Pollution Prevention Manager

(tba)

SWPPP Prepared by:

Merrell-Johnson Engineering, Inc.

12138 Industrial Blvd., Suite 240

Victorville, CA 92395

(760) 241-6146

Project# 3001

SWPPP Preparation Date:

07/28/09

Estimated Project Dates:

Start of Construction: _____ Completion of Construction: _____

WDID# / Receipt of Notice Of Intent following page

The WDID# / Receipt of Notice of Intent to be inserted here by owner.

WDID No.: _____

Contents

Section 100 SWPPP Certifications and Approval	100-1
100.1 SWPPP Certification by Preparer.....	100-1
100.2 Owner Approval and Certification of SWPPP	100-2
100.3 Annual Compliance Certification	100-3
Section 200 SWPPP Amendments	200-1
200.1 SWPPP Amendment Certification and Approval	200-1
200.2 Amendment Log.....	200-4
Section 300 Introduction and Project Description.....	300-1
300.1 Introduction and Project Description	300-1
300.2 Unique Site Features	300-1
300.3 Construction Site Estimates	300-1
300.4 Project Schedule/Water Pollution Control Schedule	300-2
300.5 Contact Information/List of Responsible Parties.....	300-2
Section 400 References	400-1
Section 500 Body of SWPPP	500-1
500.1 Objectives	500-1
500.2 Vicinity Map.....	500-2
500.3 Pollutant Source Identification and BMP Selection	500-2
500.3.1 Inventory of Materials and Activities that May Pollute Storm Water	500-2
500.3.2 Existing (pre-construction) Control Measures	500-4
500.3.3 Nature of Fill Material and Existing Data Describing the Soil	500-4
500.3.4 Erosion Control	500-4
500.3.5 Sediment Control	500-6
500.3.6 Tracking Control.....	500-7
500.3.7 Wind Erosion Control	500-7
500.3.8 Non-Storm Water Control.....	500-8
500.3.9 Waste Management and Materials Pollution Control	500-9
500.3.10 Cost Breakdown for Water Pollution Control	500-10
500.4 Water Pollution Control Drawings (WPCDs)	500-10
500.5 Construction BMP Maintenance, Inspection, and Repair	500-11
500.6 Post-Construction Storm Water Management.....	500-11
500.6.1 Post-Construction Control Practices	500-11
500.6.2 Operation/Maintenance after Project Completion	500-12

500.7	Training	500-12
500.8	List of Subcontractors	500-13
500.9	Other Plans/Permits	500-13
Section 600 Monitoring Program and Reports		600-13
600.1	Site Inspections	600-13
600.2	Non-Compliance Reporting	600-14
600.3	Record Keeping and Reports	600-14
600.4	Sampling and Analysis Plan for Sediment	600-15
600.5	Sampling and Analysis Plan for Non-Visible Pollutants	600-15
600.5.1	Scope of Monitoring Activities	600-15
600.5.2	Monitoring Strategy	600-17
600.5.3	Monitoring Preparation	600-19
600.5.4	Analytical Constituents	600-20
600.5.5	Sample Collection and Handling	600-20
600.5.6	Sample Analysis	600-24
600.5.7	Quality Assurance/Quality Control	600-26
600.5.8	Data Management and Reporting	600-26
600.5.9	Data Evaluation	600-26
600.5.10	Change of Conditions	600-27
SWPPP Attachments		
Attachment A	Vicinity Map	
Attachment B	Water Pollution Control Drawings	
Attachment C	BMP Consideration Checklist	
Attachment D	Computation Sheet for Determining Runoff Coefficients	
Attachment E	Computation Sheet for Determining Run-on Discharges	
Attachment F	Notice of Intent (NOI)	
Attachment G	Program for Maintenance, Inspection, and Repair of Construction Site BMPs	
Attachment H	Storm Water Quality Construction Site Inspection Checklist	
Attachment I	Trained Contractor Personnel Log	
Attachment J	Subcontractor Notification Letter and Log	
Attachment K	Notice of Non-Compliance	
Attachment L	SWPPP and Monitoring Program Checklist	
Attachment M	Annual Certification of Compliance Form	
Attachment N	Other Plans/Permits	
Attachment O	Water Pollution Control Cost Breakdown	

Attachment P Notice of Termination (NOT)
Attachment Q BMPs Selected for the Project
Attachment R Sampling Activity Log
Attachment S Construction Material and Pollutant Testing Guidance Table – Non-Visible Pollutants
Attachment T Discharge Reporting Log

Contents

Exhibit 1.....Construction Schedule
Exhibit 2**Soils Report
Exhibit 3**Hydrology Report
Exhibit 4.....Change of Information (COI) Form

**Due to the size of this report, only the cover sheets are attached in Exhibit 2 and 3.
Please refer to the full report supplied upon request from owner for detail and information
needed.

Section 100

SWPPP Certifications and Approval

100.1 SWPPP Certification by Preparer

Project Name: MOJAVE SOLAR PROJECT

ADMINISTRATIVE DRAFT

Project Number: GRADING PERMIT: _____
BUILDING PERMIT: _____

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Preparer's Signature

Date

Brad S. Merrell R.C.E 49423

Preparer's Name and Title

(760) 241-6146

Telephone Number

100.3 Annual Compliance Certification

By July 1 of each year, the Owner shall complete an Annual Certification of Compliance stating compliance with the terms and conditions of the Permit and the SWPPP. The blank Annual Certification of Compliance Form is included in Attachment M. Completed Annual Certifications of Compliance and Approvals can be found in the following pages.

Section 200

SWPPP Amendments

200.1 SWPPP Amendment Certification and Approval

This SWPPP shall be amended:

- Whenever there is a change in construction or operations which may affect the discharge of pollutants to surface waters, groundwater(s), or a municipal separate storm sewer system (MS4); or
- If any condition of the Permits is violated or the general objective of reducing or eliminating pollutants in storm water discharges has not been achieved. If the RWQCB determines that a Permit violation has occurred, the SWPPP shall be amended and implemented within 14-calendar days after notification by the RWQCB;
- Annually, prior to the defined rainy season; and
- When deemed necessary by the Owner.

The following items will be included in each amendment:

- Who requested the amendment.
- The location of proposed change.
- The reason for change.
- The original BMP proposed, if any.
- The new BMP proposed.

The amendments for this SWPPP, along with the Owner's Certification and the Owner approval, can be found in the following pages. Amendments are listed in the Amendment Log in section 200.2

This Administrative Draft of the Construction Drainage, Erosion, and Sediment Control/Stormwater Pollution Prevention Plan is submitted as part of the "Application for Certification" for the Mojave Solar Project. Upon completion of the final improvement plans for the project, including the final grading and drainage plans, a final DESCP/SWPPP plan will be prepared, signed by the engineer of record, and submitted to the government agencies having jurisdiction over the project.

SWPPP Amendment No.

Project Name: **MOJAVE SOLAR PROJECT**

ADMINISTRATIVE DRAFT

GRADING PERMIT: _____

Project Number: **BUILDING PERMIT:** _____

**Preparer Certification of the
Storm Water Pollution Prevention Plan Amendment**

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Preparer's Signature

Date

Preparer's Name and Title

Telephone Number

**Owner (or Owner's Authorized Representative) Approval of the
Storm Water Pollution Prevention Plan Amendment**

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Owner (or Authorized Representative) Signature

Date

Name and Title

Telephone Number

Section 300

Introduction and Project Description

300.1 Introduction and Project Description

This project is located along the south and west shores of Harper Dry Lake in an unincorporated area near the community of Lockhart, in San Bernardino County. Property includes Section 33, portions of Sections 28, 29, 30, and 32 of Township 11N, Range 4W, SBBM. Project has been sectioned into three areas; Alpha West, Alpha East and Beta.

Improvements include removal of abandoned one story buildings and structures to replace with parabolic solar collectors, foundations and pipings aligned on a north-south direction. Site will also include cooling plants with wet cooling tower, generator and evaporative ponds. See civil plans for details.

300.2 Unique Site Features

Existing Harper Lake Road is currently paved. Improvements include widening road as shown on civil plans.

Stormwater runoff at the site is predominantly sheet flow from the south and flows to the north. Drainage channels will capture and direct waters to protect power plants, solar panels, and maintenance roads. See civil plans for details.

300.3 Construction Site Estimates

The following are estimates of the construction site:

Construction site area	1,765	acres
Percentage impervious area before construction	100	%
Runoff coefficient before construction ⁽¹⁾	0.742 (1)	
Percentage impervious area after construction	97.9	%
Runoff coefficient after construction ⁽¹⁾	0.7542 (1)	
Anticipated storm water flow on to the construction site ⁽²⁾	21,928 (2)	cfs

⁽¹⁾ Calculations are shown in Attachment D

⁽²⁾ Calculations are shown in Attachment E

300.4 Project Schedule/Water Pollution Control Schedule

Construction Time-Schedule is found as Exhibit 1 of final report.

In addition to the time-schedule, the contractor assigned will mobilize and develop temporary construction facilities and lay down areas. These areas will move locations due to construction phasing and as needed to site changes. Temporary facilities may include but not limited to:

Trailer offices

Chemical Toilets

Parking for workers

Equipment Parking

Equipment/Tools Storage Areas

Lay Down Areas as needed

Security Areas at entrances of site with Tire Washes as needed.

300.5 Contact Information/List of Responsible Parties

The Storm Water Pollution Prevention Manager (SWPPM) assigned to this project is:

(tba)

(tba)

The SWPPM shall have primary responsibility and significant authority for the implementation, maintenance, inspection and amendments to the approved SWPPP. The SWPPM will be available at all times throughout the duration of the project. Duties of the SWPPM include but are not limited to:

- Ensuring full compliance with the SWPPP and the Permit
- Implementing all elements of the SWPPP, including but not limited to:
 - Implementation of prompt and effective erosion and sediment control measures
 - Implementing all non-storm water management, and materials and waste

management activities such as: monitoring discharges (dewatering, diversion devices); general site clean-up; vehicle and equipment cleaning, fueling and maintenance; spill control; ensuring that no materials other than storm water are discharged in quantities which will have an adverse effect on receiving waters or storm drain systems; etc.

- Pre-storm inspections
- Storm event inspections
- Post-storm inspections
- Routine inspections as specified in the project's specifications or described in the SWPPP
- Updates/Amendments to the SWPPP, as needed
- Preparing annual compliance certification for owner's, or owner's authorized representative, signature
- Ensuring elimination of all unauthorized discharges
- The SWPPM shall be assigned authority by the Contractor to mobilize crews in order to make immediate repairs to the control measures
- Coordinate with the Contractor to assure all of the necessary corrections/repairs are made immediately, and that the project complies with the SWPPP, the Permit and approved plans at all times
- Submitting Notices of Discharge and reports of Illicit Connections or Illegal Discharges

Section 400

References

The following documents are made a part of this SWPPP by reference:

- Project plans and specifications No. (final plans pending), dated (_____), prepared by Merrell- Johnson Engineering, Inc.
- State Water Resources Control Board (SWRCB) Order No. 99-08-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activity.
- California Stormwater BMP Handbook – Construction, January 2003
- Geotechnical Evaluation, dated May 15, 2009, prepared by Ninyo & Moore Geotechnical and Environmental Sciences Consultants, Project No. 105879004. (Cover Sheet enclosed for reference as Exhibit 2).
- Hydrology Study, (Cover Sheet for reference as Exhibit 3)
-

Section 500

Body of SWPPP

500.1 Objectives

This Storm Water Pollution Prevention Plan (SWPPP) has six main objectives:

- Identify all pollutant sources, including sources of sediment that may affect the quality of storm water discharges associated with construction activity (storm water discharges) from the construction site, and
- Identify non-storm water discharges, and
- Identify, construct, implement in accordance with a time schedule, and maintain Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site during construction, and
- Develop a maintenance schedule for BMPs installed during construction designed to reduce or eliminate pollutants after construction is completed (post-construction BMPs).
- Identify a sampling and analysis strategy and sampling schedule for discharges from construction activity which discharge directly into water bodies listed on Attachment 3 of the Permit (Clean Water Act Section 303(d) [303(d)] Water Bodies listed for Sedimentation).
- For all construction activity, identify a sampling and analysis strategy and sampling schedule for discharges that have been discovered through visual monitoring to be potentially contaminated by pollutants not visually detectable in the runoff.

This SWPPP conforms with the required elements of the General Permit No. CAS000002 issued by the State of California, State Water Resources Control Board (SWRCB). This SWPPP will be modified and amended to reflect any amendments to the Permit or any changes in construction or operations that may affect the discharge of pollutants from the construction site to surface waters, groundwaters, or the municipal separate storm sewer system (MS4). The SWPPP will also be amended if it is in violation of any condition of the Permit or has not achieved the general objective of reducing pollutants in storm water discharges. The SWPPP shall be readily available on-site for the duration of the project.

500.2 Vicinity Map

The construction project vicinity map showing the project location, surface water boundaries, geographic features, construction site perimeter, and general topography, is located in Attachment A. The project's Title Sheet provides more detail regarding the project location and is also included in Attachment A.

500.3 Pollutant Source Identification and BMP Selection

500.3.1 Inventory of Materials and Activities that May Pollute Storm Water

The following is a list of construction materials that will be used and activities that will be performed that will have the potential to contribute pollutants, other than sediment, to storm water runoff (control practices for each activity are identified in the Water Pollution Control Drawings (WPCDs) and/or in Sections 500.3.4 through 500.3.9):

- Vehicle fluids including grease, oil, petroleum, and coolants.
- Asphaltic emulsions associated with asphalt-concrete paving operations.
- Cement materials associated with PCC paving operations and drainage structures.
- Base and subbase materials.
- Solvents, thinners, and acids.
- Raw landscaping materials and wastes.
- BMP materials.
- PCC rubble.
- General litter.
- Demobilizations associated with construction facilities and laydown areas being relocated/removed.
- Concrete curing compounds and operations.

Construction activities that have the potential to contribute sediment to storm water discharges include:

- Clear and grub operations.
- Grading operations.
- Soil import operations.
- Utility excavation operations.
- Sandblasting operations.
- Welding and pipe coating operations.
- Hydrostatic testings.
- Trenching.
- Paving operations.
- Boring operations.
- Delivery/transportation operations.
- Foundation/structure construction operations.
- Vehicle and equipment cleaning, fueling, and maintenance.
- Paint.
- Wash out and Clean up of equipment.

Attachment C lists all Best Management Practices (BMPs) that have been selected for implementation in this project. Implementation and location of BMPs are shown on the WPCDs in Attachment B. Narrative descriptions of BMPs to be used during the project are listed by category in each of the following SWPPP sections. Attachment Q includes a list, and/or copies of the fact sheets of all the BMPs selected for this project.

500.3.2 Existing (pre-construction) Control Measures

The following are existing (pre-construction) control measures encountered within the project site:

- There are no known control measures on this site.
-
-
-
-
-

500.3.3 Nature of Fill Material and Existing Data Describing the Soil

Refer to Geotechnical Evaluation Report for soil data.

Existing site features that, as a result of past usage, may contribute pollutants to storm water (e.g., toxic materials that are known to have been treated, stored, disposed, spilled, or leaked onto the construction site) include:

-
-
-
-

500.3.4 Erosion Control

Erosion control, also referred to as soil stabilization, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in storm water runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles. This project will incorporate erosion control measures required by

the contract documents, and other measures selected by the Contractor, SWPPP Manager, or Owner. This project will implement the following practices for effective temporary and final erosion control during construction:

- 1) Preserve existing vegetation where required and when feasible.
- 2) Apply temporary erosion control to remaining active and non-active areas as required by the California Stormwater BMPs Handbook – Construction, and the contract documents. Reapply as necessary to maintain effectiveness.
- 3) Implement temporary erosion control measures at regular intervals throughout the defined rainy season to achieve and maintain the contract’s disturbed soil area requirements. Implement erosion control prior to the defined rainy season.
- 4) Stabilize non-active areas as soon as feasible after the cessation of construction activities.
- 5) Control erosion in concentrated flow paths by applying erosion control blankets, erosion control seeding, and lining swales as required in the contract documents.

- 6) At completion of construction, apply permanent erosion control to all remaining disturbed soil areas.

Sufficient erosion control materials will be maintained on-site to allow implementation in conformance with Permit requirements and described in this SWPPP. This includes implementation requirements for active areas and non-active areas that require deployment before the onset of rain.

Implementation and locations of temporary erosion control BMPs are shown on the Water Pollution Control Drawings (WPCDs) in Attachment B and/or described in this section. The BMP Consideration Checklist in Attachment C indicates the BMPs that will be implemented to control erosion on the construction site; these are:

- EC-1, Scheduling
- EC-2, Preservation of Existing Vegetation
- EC-5, Soil Binders *(DO NOT use EC-4, Hydroseeding as a "Potential Alternative" as listed in latest edition of CASQA BMP Handbook for this project.)

- EC-7, Geotextiles and Mats
- EC-9, Earth Dikes and Drainage Swales
- EC-10, Velocity Dissipation Devices
- EC-11, Slope Drains
- EC-13, Polyacrylamide*

Temporary concentrated flow conveyance controls consists of a system of measures or BMPs that are used alone or in combination to intercept, divert, convey and discharge concentrated flows with a minimum of soil erosion, both on-site and downstream (off-site). Temporary concentrated flow conveyance controls may be required to direct run-on around or through the project in a non-erodible fashion. The Constructor's Storm water Pollution Prevention Manager shall implement such practices and assure continued compliance throughout project.

* Due to the nature of this project, Hydroseeding as a form of Erosion Control for soil stabilization will hinder this project and its' purpose. Alternative measures are listed above, which include and are not limited to EC-13, Polyacrylamides as approved by owner and meet the Local, State and Federal requirements.

500.3.5 Sediment Control

Sediment controls are structural measures that are intended to complement and enhance the selected erosion control measures and reduce sediment discharges from active construction areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water. This project will incorporate sediment control measures required by the contract documents, and other measures selected by the Contractor, SWPPP Manager, or Owner.

Sufficient quantities of temporary sediment control materials will be maintained on-site throughout the duration of the project, to allow implementation of temporary sediment controls in the event of predicted rain, and for rapid response to failures or emergencies, in conformance with other Permit requirements and as described in this SWPPP. This includes implementation requirements for active areas and non-active areas before the onset of rain.

Implementation and locations of temporary sediment control BMPs are shown on the Water Pollution Control Drawings (WPCDs) in Attachment B. The BMP Consideration

Checklist in Attachment C indicates all the BMPs that will be implemented to control sediment on the construction site; these are:

- SE-1, Silt Fence
- SE-4, Check Dams
- SE-5, Fiber Rolls
- SE-6, Gravel Bag Berm
- SE-8, Sandbag Barrier
- SE-9, Straw Bale Barrier
- SE-10, Storm Drain Inlet Protection

Temporary sediment control practices include those practices that intercept and slow or detain the flow of storm water to allow sediment to settle and be trapped. These practices can be used alone or in combination of above list. The Constructor's Storm water Pollution Prevention Manager shall implement such practices and assure continued compliance throughout project.

500.3.6 Tracking Control

The following BMPs have been selected to reduce sediment tracking from the construction site onto private or public roads:

- SE-7, Street Sweeping and Vacuuming
- TC-1, Stabilized Construction Entrance/Exit
- TC-2, Stabilized Construction Roadway
- TC-3, Entrance/Outlet Tire Wash

Tracking control also consists of preventing or reducing vehicle tracking from entering a storm drain or watercourse. The Constructor's Storm water Pollution Prevention Manager shall implement such practices and assure continued compliance throughout project.

500.3.7 Wind Erosion Control

The following BMPs have been selected to control dust from the construction site:

- WE-1, Wind Erosion Control
- Cover all trucks hauling soils and other loose materials or maintain adequate freeboard.
-

Wind erosion consists of applying water or other dust palliatives as necessary to prevent or alleviate dust nuisance. The Contractor's Storm water Pollution Prevention Manager shall implement such practices and assure continued compliance throughout project.

500.3.8 Non-Storm Water Control

An inventory of construction activities and potential non-storm water discharges is provided in Section 5.3.1. The BMP Consideration Checklist in Attachment C and the following list indicates the BMPs that have been selected to control non-storm water pollution on the construction site. Implementation and locations of some non-storm water control BMPs are shown on the Water Pollution Control Drawings (WPCDs) in Attachment B. A narrative description of each BMP follows.

- NS-6, Illicit Connection/Illegal Discharge Detection and Reporting
- NS-8, Vehicle and Equipment Cleaning
- NS-9, Vehicle and Equipment Fueling
- NS-10, Vehicle and Equipment Maintenance
- NS-1 Water Conservation Practices
- NS-3, Paving and Grinding Operations
- NS-7, Potable Water/Irrigation Practices
- NS-12, Concrete Curing
- NS-13, Concrete Finishing
- Place drip pans or absorbent materials under heavy equipment when not in use.
- Inspect all heavy equipment and vehicles regularly for signs of leaks.

- Use proper storage and handling techniques for all concrete curing compounds, oils, grease and other petroleum by-products, preventing runoff or spills.
- Inform workers of the importance of preventing spills and measures to take should a spill occur. Train workers in Good Housekeeping Practices according with local, state, and federal regulations. Report spills in appropriate compliance reports.

Non-storm water management best management practices (BMPs) are source control BMPs that prevent pollution by limiting or reducing potential pollutants at their source before they come in contact with storm water. These practices involve day-to-day operations of the construction site and are under the control of the Contractor. These are also referred to as "good housekeeping practices", which involve keeping a clean, orderly construction site.

500.3.9 Waste Management and Materials Pollution Control

An inventory of construction activities, materials, and wastes is provided in Section 5.3.1. The BMP Consideration Checklist in Attachment C and the following list indicates the BMPs that have been selected to handle materials and control construction site wastes. A narrative description of each BMP follows.

- WM-1, Material Delivery and Storage
- WM- 2, Material Use
- WM-3, Stockpile Management
- WM-4, Spill Prevention and Control
- WM-5, Solid Waste Management
- WM-9, Sanitary/Septic Waste Management
- Provide weekly maintenance for portable toilets by a licensed sanitary service and dispose of wastes according to regulations. Anchor portable toilets during periods of heavy winds.
- WM-6, Hazardous Waste Management
- WM-7, Contaminated Soil Management
- WM-8, Concrete waste Management

- WM-10, Liquid Waste Management
- Place covers over stockpiles prior to forecasted storm events and during windy conditions. In addition, place sediment controls at the foot of stockpiled materials.
- Maintain spill cleanup sheets, material inventory sheet, emergency contact numbers, and methods for spill cleanup information clearly posted in storage area.
- Spill cleanup materials should include, but not limited to a minimum of, absorbent materials, tools to manage (such as brooms, shovels, rakes, squeegees, water-tight containers, and personnel protective gear), and a spill berm that will hold the amount of the largest container.
- Inform personnel of all cleanup supplies and procedures including reporting spills of toxic or hazardous materials to the Project Manager or assignee regardless of size.

Waste management and materials pollution control BMPs, like non-storm water management BMPs, are source control BMPs that prevent pollution by limiting or reducing potential pollutants at their source before they come in contact with storm water. The objective is to reduce the opportunity for rainfall, handling, storing, and disposing of wastes to come into storm water discharges. These BMPs listed above mainly involve day-to-day operations of "good housekeeping practices". The Contractor's Storm water Pollution Prevention Manager shall implement such practices and assure continued compliance throughout project.

500.3.10 Cost Breakdown for Water Pollution Control

A cost breakdown itemizing the contract lump sum for water pollution control has been developed for this project and included in Attachment O. The cost breakdown reflects the items of work, quantities and costs for BMPs shown in the SWPPP, except for those construction site BMPs and permanent BMPs that are shown on the project plans and for which there is a contract item of work.

500.4 Water Pollution Control Drawings (WPCDs)

The Water Pollution Control Drawings can be found in Attachment B of the SWPPP.

500.5 Construction BMP Maintenance, Inspection, and Repair

Inspections will be conducted as follows:

- Prior to a forecast storm
- after a rain event that causes runoff from the construction site
- at 24-hour intervals during extended rain events
- at any other time(s) or intervals of time specified in the contract documents

Completed inspection checklists will be kept with the SWPPP.

A tracking or follow-up procedure shall follow any inspection that identifies deficiencies in BMPs. A program for Maintenance, Inspection and Repair of BMPs is shown in Attachment G.

500.6 Post-Construction Storm Water Management

500.6.1 Post-Construction Control Practices

The following are the post-construction BMPs that are to be used at this construction site after all construction is complete:

- On-site Oil/Water Separators at the power islands
- Swales
- Curb and gutters
- Drainage Channels
- Berms and Dikes
-

Sheet flow within the solar field will be managed through the construction of internal drainage facilities designed to capture storm water and allow it to percolate and evaporate within the fields. Refer to Water Resource AFC Application, Section 5.17 for details.

500.6.2 Operation/Maintenance after Project Completion

The post-construction BMPs that are described above will be funded and maintained by Owner.

500.7 Training

Section 300.5 shows the name of the Contractor's Storm Water Pollution Prevention Manager (SWPPM). This person has received the following training:

- (tba)
-
-
-

The training log showing formal and informal training of various Contractor personnel is shown in Attachment I.

Contractors and subcontractors are responsible for familiarizing their personnel with the information contained in the SWPPP. All new employees will be trained by staff familiar with these topics.

As required by the SWRCB, individuals responsible for SWPPP preparation, implementation, and permit compliance will be appropriately trained and training will be documented. This includes those personnel responsible for installation, inspection, maintenance, and repair of BMPs. Those responsible for overseeing, revising and amending the SWPPP shall also receive and document their training. Monitoring and inspection activities will only be conducted by individuals who have had additional training specific for this purpose.

Contractor is responsible for all on-site situations regarding compliance with this SWPPP, California Regional Water Quality Control Board, California Stormwater Quality Association, Environmental Protection Agency, as well as, other local, state and federal regulations of stormwater control. If contractor disagrees with this SWPPP contents, it shall be brought to the attention of the preparer prior to beginning construction.

This SWPPP was prepared by Brad S. Merrell R.C.E. 49423
Merrell - Johnson Engineering, Inc.
12138 Industrial Blvd., Suite# 240
Victorville, CA 92395
(760) 241-6146.

500.8 List of Subcontractors

All contractors and subcontractors will be notified of the requirement for storm water management measures during the project. A list of contractors will be maintained and included in the SWPPP. If subcontractors change during the project, the list will be updated accordingly. The subcontractor notification letter and log is included in the SWPPP as Attachment J.

500.9 Other Plans/Permits

Attachment N includes copies of other local, state, and federal plans and permits. Following is a list of the plans and permits included in Attachment N:

- State Water Resources Control Board (SWRCB) Order No. 99-08-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activity.

Section 600

Monitoring Program and Reports

600.1 Site Inspections

The SWPPM will inspect the site prior to a forecast storm, after a rain event that causes runoff from the construction site, at 24-hour intervals during extended rain events, and as specified in the contract documents. The results of all inspections and assessments will be documented. Copies of the completed inspection checklists will be maintained with the

SWPPP. Site inspections conducted for monitoring purposes will be performed using the inspection checklist shown in Attachment H.

The name(s) and contact number(s) of the assigned inspection personnel are listed below:

Assigned inspector: (tba)

Contact phone: (tba)

600.2 Non-Compliance Reporting

If a discharge occurs or if the project receives a written notice of non-compliance, the Contractor will immediately notify the Owner and will file a written report to the Owner within 7 days of the discharge or notice. The Owner is responsible for filing a written report to the Regional Water Quality Control Board (RWQCB) within 30 days of identification of non-compliance. Corrective measures will be implemented immediately following the discharge, notice or order. A sample Notice of Non-Compliance (NONC) form is provided in Attachment K. All discharges will be documented on a Discharge Reporting Log using the example form in Attachment T.

The report to the Owner and to the RWQCB will contain the following items:

- The date, time, location, nature of operation, and type of unauthorized discharge, including the cause or nature of the notice or order,
- The control measures (BMPs) deployed before the discharge event, or prior to receiving notice or order,
- The date of deployment and type of control measures (BMPs) deployed after the discharge event, or after receiving the notice or order, including additional measures installed or planned to reduce or prevent re-occurrence, and
- An implementation and maintenance schedule for any affected BMPs

600.3 Record Keeping and Reports

Records shall be retained for a minimum of three years for the following items:

- Site inspections
- Compliance certifications
- Discharge reports
- Approved SWPPP document and amendments

600.4 Sampling and Analysis Plan for Sediment

This project does not have the potential to discharge directly to a water body listed as impaired due to Sedimentation/Siltation and/or Turbidity pursuant to Clean Water Act, Section 303(d).

Sampling and Analysis Plan for Non-Visible Pollutants

This Sampling and Analysis Plan (SAP) for Non-Visible Pollutants describes the sampling and analysis strategy and schedule for monitoring non-visible pollutants in storm water discharges from the project site and off-site activities directly related to the project, in accordance with the requirements of Section B of the General Permit, including SWRCB Resolution 2001-046.

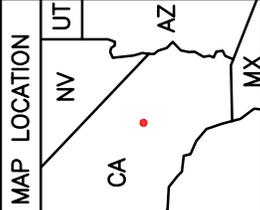
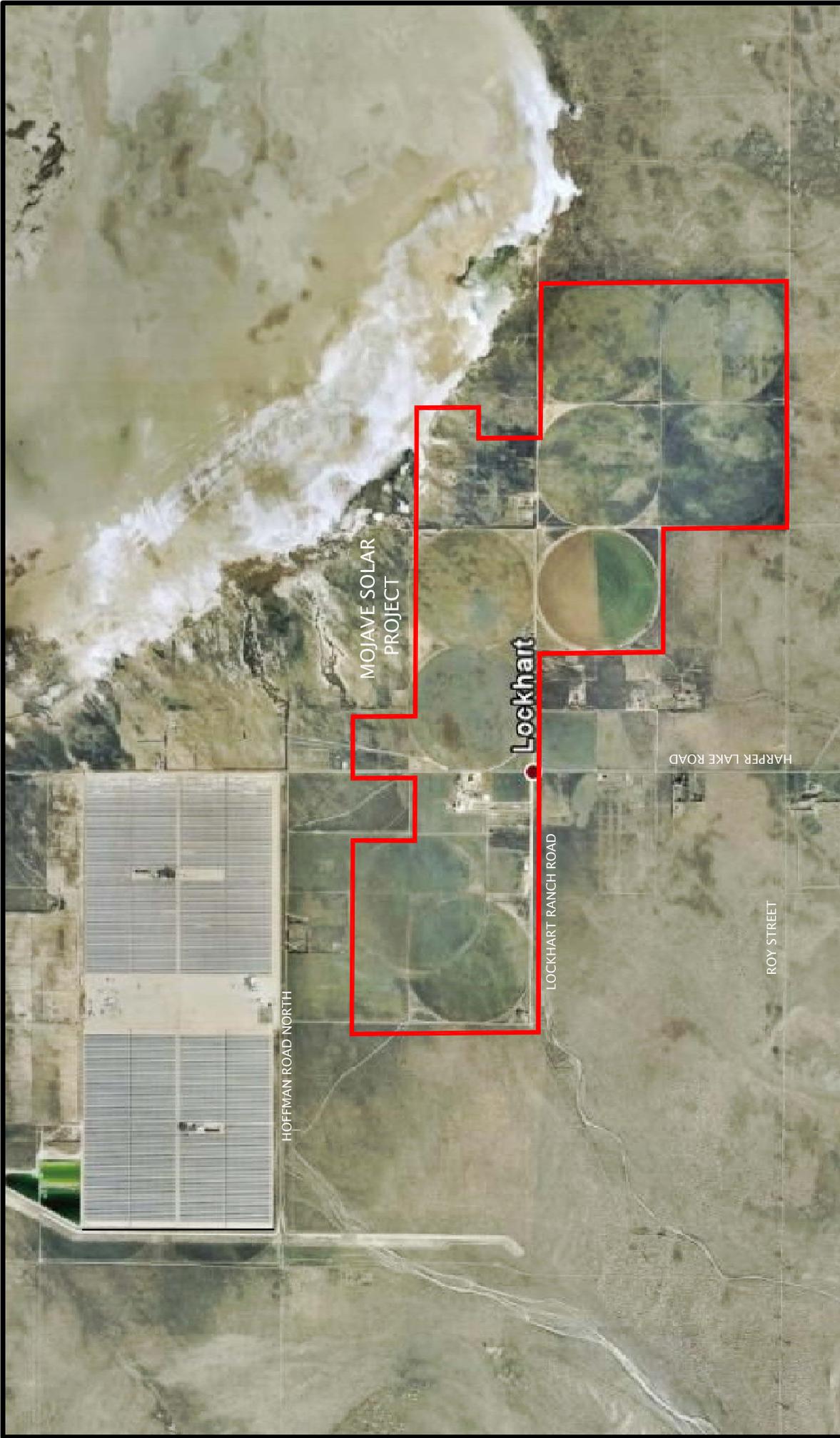
600.5.1 Scope of Monitoring Activities

The following construction materials, wastes or activities, as identified in Section 500.3.1, are potential sources of non-visible pollutants to storm water discharges from the project. Storage, use, and operational locations are shown on the WPCDs in Attachment B.

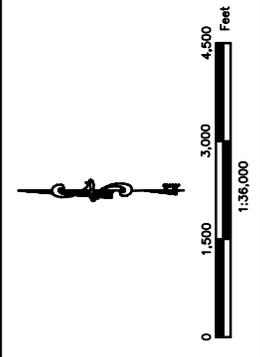
- Harper Dry Lake is not listed in the 303d List of Water Bodies for the Lahontan Region, approved by USEPA, July 2003, latest report titled, "2003 CWA Section 303(d) List of Water Quality Limited Segment".
- Per our meetings and discussions with the Regional Water Board this Section for Sampling of Non-Visible Pollutant to storm water discharges from the project have been omitted due to the area of this project. On-site storm water will be held and percolated on-site.

Attachment A

Vicinity Map



Legend
 Plant Site Boundary

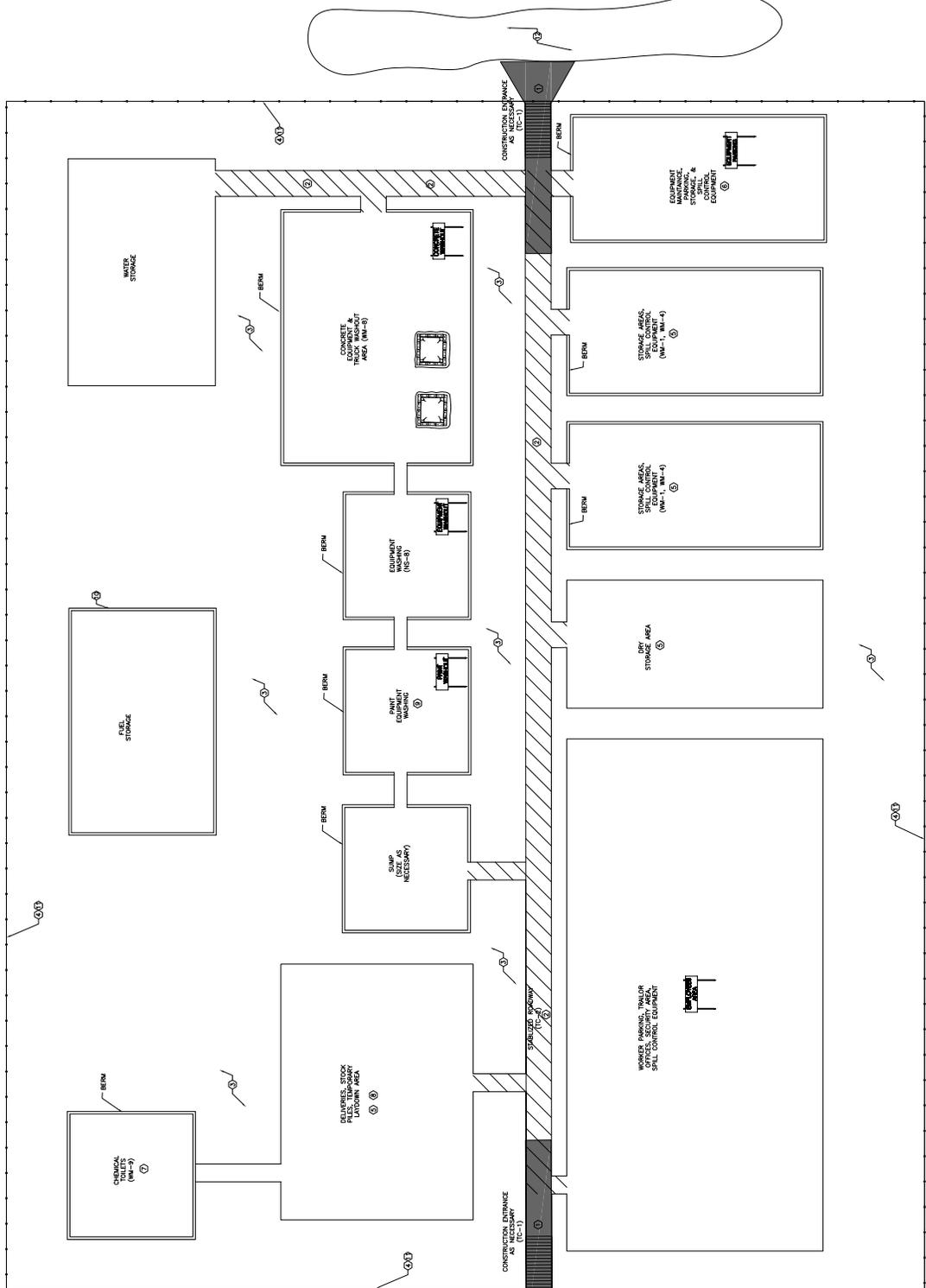


MOJAVE SOLAR PROJECT
Figure 5.3-1
Plant Site and
Survey Area

 Merrell-Johnson Engineering, Inc.	MOJAVE SOLAR LLC
PROJECT: _____ DATE: 04-20-2009	

Attachment B

Water Pollution Control Drawings (WPCDs)



**MOJAVE SOLAR
EROSION CONTROL
ALPHA & BETA**

FOR:
ABENGOA SOLAR

SCALE:
AS SHOWN

JOB NO.
3001

SHEET
2 OF 5

DRAWN BY:
JMS

DESIGNED BY:
01/29/09

DATE:

APPROVED BY:

DATE:

**Merrell-Johnson
Engineering, Inc.**

12126 INDUSTRIAL AVE. #400
DOWNEY, CALIFORNIA 90241
(714) 241-4144
(714) 241-0868 FAX

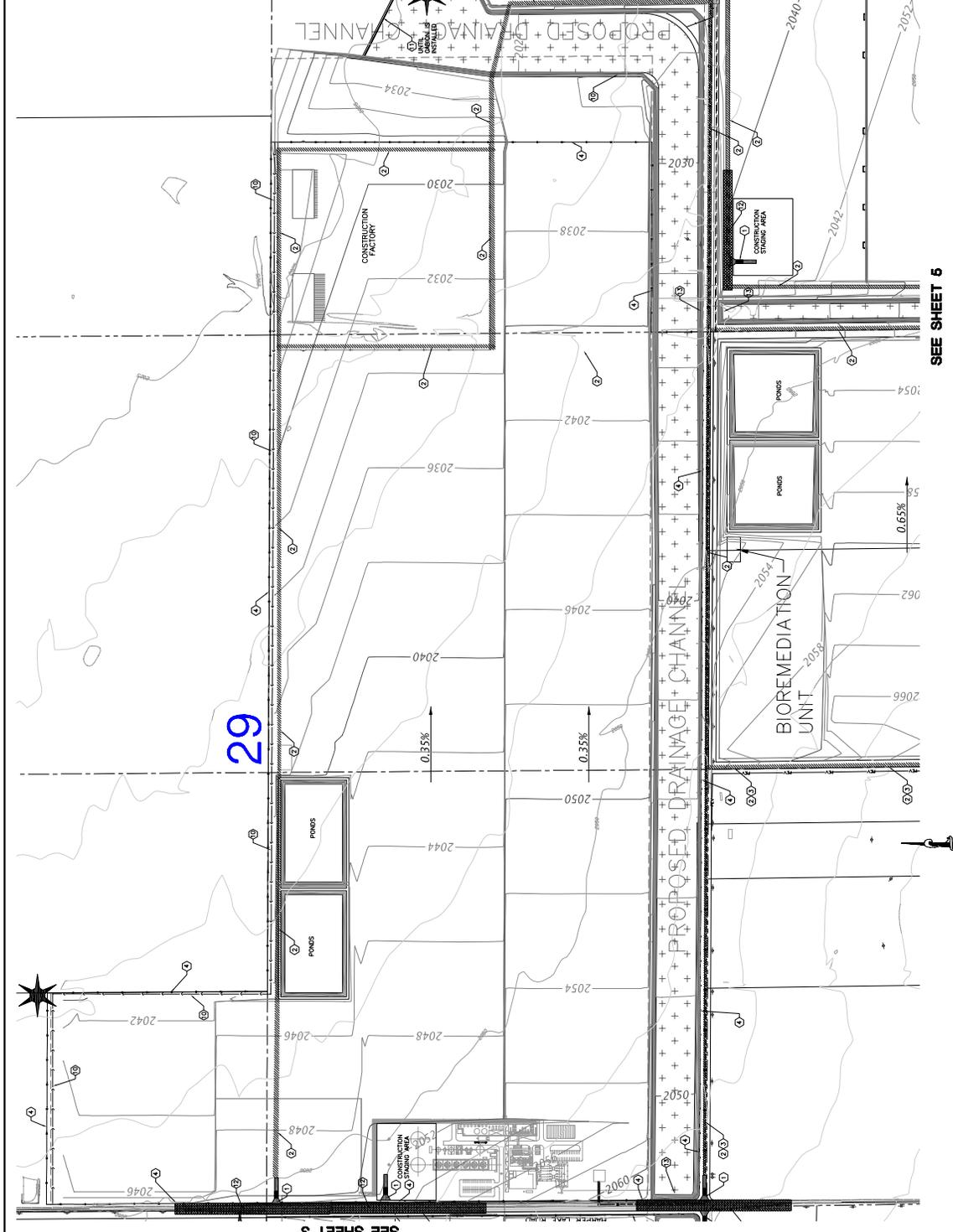
128 E. FREDERICK STREET
DOWNEY, CALIFORNIA 90241
(714) 242-2068
(714) 241-4144 FAX

PRELIMINARY
Not for Construction

- LEGEND**
- PERIMETER/TORRHOSE FENCE
 - AREA BOUNDARY
 - PROPOSED DRAINAGE CHANNEL
 - PROPOSED PAVEMENT
 - TC-2, STABILIZED CONSTRUCTION ROADWAY
 - SE-7, STREET SWEEPING AND VACUUMING
 - STORMWATER DISCHARGE LOCATIONS
 - EC-9, EARTH DIKES AND DRAINAGE SWALES
 - EC-2, PROTECT EXISTING VEGETATION
 - SE-1, SILT FENCE
 - SE-3, FIBER ROLL
 - SE-4, SAND/SWEEP BAG BARRIER
 - TC-1, TC-3, STABILIZED CONSTRUCTION ROADWAY
 - WMB, CONCRETE WASTE MANAGEMENT

**STORM WATER POLLUTION CONTROL
CONSTRUCTION NOTES**

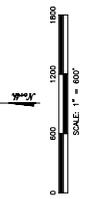
1. STABILIZED CONSTRUCTION ENTRANCE (SEE WITH CONCRETE) SHALL BE WASHED WITH WASH. SEE TC-1, TC-2, AND TC-3 FOR DETAILS.
2. STABILIZED CONSTRUCTION ROADWAY, TEMPORARY STORAGE AS NEEDED DUE TO CONSTRUCTION PHASING AND TRAVEL PATH FOR SOIL CONTROL. SEE TC-2 FOR INSTRUCTIONS.
3. IMPLEMENT WIND EROSION CONTROL AS NECESSARY TO PREVENT WIND-BLOWN SOIL FROM ENTERING CONSTRUCTION AREA. SEE EC-9, EC-3, EC-5 (SOIL BARRIERS) AND EC-13 (POLYCARBONATE FOR APPLICATIONS).
4. LOCATIONS AND CHANGES FOR SITE CONDITIONS.
5. INSTALL MATERIAL DELIVERY AND STORAGE FACILITY. SEE WM-1 FOR INSTRUCTIONS.
6. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.
7. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.
8. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.
9. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.
10. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.
11. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.
12. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.
13. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.
14. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.
15. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.
16. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.
17. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.
18. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.
19. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.
20. PROVIDE CONCRETE WASTE MANAGEMENT FACILITY AND STORAGE AREA. SEE WMB FOR INSTRUCTIONS.



SEE SHEET 3

SEE SHEET 5

PRELIMINARY
Not for Construction



LEGEND

- PERMITS/TORPOSE FENCE
- AREA BOUNDARY
- PROPOSED DRAINAGE CHANNEL
- PROPOSED PAVEMENT
- TC-2, STABILIZED CONSTRUCTION ROADWAY
- SC-7, STREET SLEEPING AND WOUNDING
- EC-9, EARTH Dikes AND DRAINAGE SWALES
- EC-2, PROTECT EXISTING VEGETATION
- SC-1, SILT FENCE
- FR-5, FIBER ROLL
- SC-4, SAND/DIAPHRAGM BAG BARRIER
- TC-1, TC-3, STABILIZED CONSTRUCTION DRAINAGE CUT
- W-8 CONCRETE WASTE MANAGEMENT

STORM WATER POLLUTION CONTROL CONSTRUCTION NOTES

1. STABILIZED CONSTRUCTION DRAINAGE CUTS INTO COMPACTED STEEL PANELS WITH WASH. SEE TC-1, TC-2 AND TC-3 FOR CONSTRUCTION INSTRUCTIONS.
2. STABILIZED CONSTRUCTION ROADWAY TEMPORARY SOURCE AS NEEDED DUE TO CONSTRUCTION PAVING AND TRAFFIC WITH WASH. SEE EC-9 FOR CONSTRUCTION INSTRUCTIONS.
3. IMPLEMENT WASTE CONTROL AS NECESSARY TO PREVENT WASTE FROM ENTERING DRAINAGE CHANNELS. WASTE MANAGEMENT METHODS TO BE USED: W-1, EC-2, G-1, G-2, G-3, G-4, G-5, G-6, G-7, G-8, G-9, G-10, G-11, G-12, G-13, G-14, G-15, G-16, G-17, G-18, G-19, G-20, G-21, G-22, G-23, G-24, G-25, G-26, G-27, G-28, G-29, G-30, G-31, G-32, G-33, G-34, G-35, G-36, G-37, G-38, G-39, G-40, G-41, G-42, G-43, G-44, G-45, G-46, G-47, G-48, G-49, G-50, G-51, G-52, G-53, G-54, G-55, G-56, G-57, G-58, G-59, G-60, G-61, G-62, G-63, G-64, G-65, G-66, G-67, G-68, G-69, G-70, G-71, G-72, G-73, G-74, G-75, G-76, G-77, G-78, G-79, G-80, G-81, G-82, G-83, G-84, G-85, G-86, G-87, G-88, G-89, G-90, G-91, G-92, G-93, G-94, G-95, G-96, G-97, G-98, G-99, G-100.
4. LOCATIONS AND CHANGES PER SITE CONDITIONS.
5. INSTALL MATERIAL DELIVERY AND STORAGE FACILITY. SEE W-1 FOR CONSTRUCTION INSTRUCTIONS.
6. CONSTRUCTION OF PAVEMENT, PAVING AND PAVING AREAS. SEE EC-9, EC-10, EC-11, EC-12, EC-13, EC-14, EC-15, EC-16, EC-17, EC-18, EC-19, EC-20, EC-21, EC-22, EC-23, EC-24, EC-25, EC-26, EC-27, EC-28, EC-29, EC-30, EC-31, EC-32, EC-33, EC-34, EC-35, EC-36, EC-37, EC-38, EC-39, EC-40, EC-41, EC-42, EC-43, EC-44, EC-45, EC-46, EC-47, EC-48, EC-49, EC-50, EC-51, EC-52, EC-53, EC-54, EC-55, EC-56, EC-57, EC-58, EC-59, EC-60, EC-61, EC-62, EC-63, EC-64, EC-65, EC-66, EC-67, EC-68, EC-69, EC-70, EC-71, EC-72, EC-73, EC-74, EC-75, EC-76, EC-77, EC-78, EC-79, EC-80, EC-81, EC-82, EC-83, EC-84, EC-85, EC-86, EC-87, EC-88, EC-89, EC-90, EC-91, EC-92, EC-93, EC-94, EC-95, EC-96, EC-97, EC-98, EC-99, EC-100.
7. INSTALL SANITARY/SEPTIC WASTE MANAGEMENT FACILITY/FACILITIES. SEE W-2 FOR CONSTRUCTION INSTRUCTIONS.
8. CONSTRUCTION OF WASTE MANAGEMENT FACILITY/FACILITIES. SEE W-2 FOR CONSTRUCTION INSTRUCTIONS.
9. CONSTRUCTION OF WASTE MANAGEMENT FACILITY/FACILITIES. SEE W-2 FOR CONSTRUCTION INSTRUCTIONS.
10. INSTALL AND MAINTAIN TEMPORARY PAINT/CONCRETE WASHOUT AREA. SEE W-3 FOR CONSTRUCTION INSTRUCTIONS.
11. CONSTRUCTION OF WASTE MANAGEMENT FACILITY/FACILITIES. SEE W-2 FOR CONSTRUCTION INSTRUCTIONS.
12. CONSTRUCTION OF WASTE MANAGEMENT FACILITY/FACILITIES. SEE W-2 FOR CONSTRUCTION INSTRUCTIONS.
13. CONSTRUCTION OF WASTE MANAGEMENT FACILITY/FACILITIES. SEE W-2 FOR CONSTRUCTION INSTRUCTIONS.
14. CONSTRUCTION OF WASTE MANAGEMENT FACILITY/FACILITIES. SEE W-2 FOR CONSTRUCTION INSTRUCTIONS.
15. CONSTRUCTION OF WASTE MANAGEMENT FACILITY/FACILITIES. SEE W-2 FOR CONSTRUCTION INSTRUCTIONS.
16. CONSTRUCTION OF WASTE MANAGEMENT FACILITY/FACILITIES. SEE W-2 FOR CONSTRUCTION INSTRUCTIONS.
17. CONSTRUCTION OF WASTE MANAGEMENT FACILITY/FACILITIES. SEE W-2 FOR CONSTRUCTION INSTRUCTIONS.
18. CONSTRUCTION OF WASTE MANAGEMENT FACILITY/FACILITIES. SEE W-2 FOR CONSTRUCTION INSTRUCTIONS.
19. CONSTRUCTION OF WASTE MANAGEMENT FACILITY/FACILITIES. SEE W-2 FOR CONSTRUCTION INSTRUCTIONS.
20. CONSTRUCTION OF WASTE MANAGEMENT FACILITY/FACILITIES. SEE W-2 FOR CONSTRUCTION INSTRUCTIONS.

MOJAVE SOLAR
EROSION CONTROL
ALPHA EAST

FOR:
ABENGOA SOLAR

Merrell-Johnson
Engineering, Inc.
12126 INDUSTRIAL BLVD. #400
DOWNEY, CALIFORNIA 90242
(714) 241-1414
(714) 241-0868 FAX

DRAWN BY:
JMS
07/28/09

DESIGNED BY:
DATE:

APPROVED BY:
DATE:

SCALE:
AS SHOWN
JOB NO.
3001

SHEET
4
OF
5

Attachment C

BMP Consideration Checklist

CONSTRUCTION SITE BMPs CONSIDERATION CHECKLIST					
The BMPs listed here should be considered for every project. Those BMPs that are not included in the SWPPP must be checked as "Not Used" with a brief statement describing why it is not being used.					
EROSION CONTROL BMPs					
BMP No.	BMP	CONSIDERED FOR PROJECT	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
EC-1	Scheduling		✓		
EC-2	Preservation of Existing Vegetation		✓		
EC-3	Hydraulic Mulch	✓			
EC-4	Hydroseeding			✓	NOT EFFICIENT FOR THIS PROJECT
EC-5	Soil Binders	✓			
EC-6	Straw Mulch	✓			
EC-7	Geotextiles & Mats	✓			
EC-8	Wood Mulching	✓			
EC-9	Earth Dikes & Drainage Swales		✓		
EC-10	Velocity Dissipation Devices	✓			
EC-11	Slope Drains	✓			
EC-12	Streambank Stabilization			✓	NO STREAMS ON OR NEAR SITE
EC-13	Polyacrylamide	✓			

CONSTRUCTION SITE BMPs CONSIDERATION CHECKLIST					
The BMPs listed here should be considered for every project. Those BMPs that are not included in the SWPPP must be checked as "Not Used" with a brief statement describing why it is not being used.					
SEDIMENT CONTROL BMPs					
BMP No.	BMP	CONSIDERED FOR PROJECT	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
SE-1	Silt Fence		✓		
SE-2	Sediment Basin			✓	NOT EFFECTIVE FOR THIS SITE
SE-3	Sediment Trap			✓	NOT EFFECTIVE FOR THIS SITE
SE-4	Check Dam		✓		
SE-5	Fiber Rolls	✓			
SE-6	Gravel Bag Berm		✓		
SE-7	Street Sweeping and Vacuuming		✓		
SE-8	Sand Bag Barrier		✓		
SE-9	Straw Bale Barrier	✓			
SE-10	Storm Drain Inlet Protection		✓		
SE-11	Chemical Treatment		✓		
WIND EROSION CONTROL BMPs					
WE-1	Wind Erosion Control		✓		
TRACKING CONTROL BMPs					
TR-1	Stabilized Construction Entrance/Exit		✓		
TR-2	Stabilized Construction Roadway		✓		
TR-3	Entrance/Outlet Tire Wash		✓		

CONSTRUCTION SITE BMPs CONSIDERATION CHECKLIST

The BMPs listed here should be considered for every project. Those BMPs that are not included in the SWPPP must be checked as "Not Used" with a brief statement describing why it is not being used.

NON-STORM WATER MANAGEMENT BMPs

BMP No.	BMP	CONSIDERED FOR PROJECT	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
NS-1	Water Conservation Practices		✓		
NS-2	Dewatering Operations	✓			
NS-3	Paving and Grinding Operations		✓		
NS-4	Temporary Stream Crossing			✓	NO STREAMS ON OR NEAR SITE
NS-5	Clear Water Diversion			✓	NO WATERS ON OR NEAR SITE
NS-6	Illicit Connection/ Discharge		✓		
NS-7	Potable Water/Irrigation	✓			
NS-8	Vehicle and Equipment Cleaning		✓		
NS-9	Vehicle and Equipment Fueling		✓		
NS-10	Vehicle and Equipment Maintenance		✓		
NS-11	Pile Driving Operations			✓	NO PILE DRIVING EQUIPMENT ESTIMATED FOR THIS PROJECT
NS-12	Concrete Curing		✓		
NS-13	Concrete Finishing	✓			
NS-14	Material and Equipment Use Over Water			✓	NO WATERS ON OR NEAR SITE
NS-15	Demolition Adjacent to Water			✓	NO WATERS ON OR NEAR SITE
NS-16	Temporary Batch Plants		✓		

**CONSTRUCTION SITE BMPs
 CONSIDERATION CHECKLIST**

The BMPs listed here should be considered for every project. Those BMPs that are not included in the SWPPP must be checked as "Not Used" with a brief statement describing why it is not being used.

WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs

BMP No.	BMP	CONSIDERED FOR PROJECT	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
WM-1	Material Delivery and Storage		✓		
WM-2	Material Use		✓		
WM-3	Stockpile Management		✓		
WM-4	Spill Prevention and Control		✓		
WM-5	Solid Waste Management		✓		
WM-6	Hazardous Waste Management		✓		
WM-7	Contaminated Soil Management		✓		
WM-8	Concrete Waste Management		✓		
WM-9	Sanitary/Septic Waste Management		✓		
WM-10	Liquid Waste Management		✓		

Attachment D

Computation Sheet for Determining Runoff Coefficients

* Hydrology Report included in Attachment S

$$\text{Total Site Area} = \underline{\underline{1765 \text{ Acres}}} \quad (\text{A})$$

Existing Site Conditions (TBD IN FINAL REPORT)

$$\text{Impervious Site Area}^1 = \underline{\underline{0.0 \text{ Acres}}} \quad (\text{B})$$

$$\text{Impervious Site Area Runoff Coefficient}^{2,4} = \underline{\underline{\text{N/A}}} \quad (\text{C})$$

$$\text{Pervious Site Area}^3 = \underline{\underline{1765 \text{ Acres}}} \quad (\text{D})$$

$$\text{Pervious Site Area Runoff Coefficient}^4 = \underline{\underline{0.742}} \quad (\text{E})$$

$$\text{Existing Site Area Runoff Coefficient} \frac{(B \times C) + (D \times E)}{(A)} = \underline{\underline{0.742}} \quad (\text{F})$$

Proposed Site Conditions (after construction) (TBD IN FINAL REPORT)

$$\text{Impervious Site Area}^1 = \underline{\underline{37.3 \text{ Acres}}} \quad (\text{G})$$

$$\text{Impervious Site Area Runoff Coefficient}^{2,4} = \underline{\underline{0.95}} \quad (\text{H})$$

$$\text{Pervious Site Area}^3 = \underline{\underline{1727.7 \text{ Acres}}} \quad (\text{I})$$

$$\text{Pervious Site Area Runoff Coefficient}^4 = \underline{\underline{0.75}} \quad (\text{J})$$

$$\text{Proposed Site Area Runoff Coefficient} \frac{(G \times H) + (I \times J)}{(A)} = \underline{\underline{0.7542}} \quad (\text{K})$$

1. Includes paved areas, areas covered by buildings, and other impervious surfaces.
2. Use 0.95 unless lower or higher runoff coefficient can be verified.
3. Includes areas of vegetation, most unpaved or uncovered soil surfaces, and other pervious areas.
4. Refer to local Hydrology Manual for typical C values.
5. *Hydrology ESTIMATES are supplied if original report was not provided when SWPPP was submitted.

Attachment E

Computational Sheet for Determining Run-on Discharges

Existing Site Conditions

Area Runoff Coefficient	=	$\frac{\text{Varies-See}}{\text{Hydrology Study}}$	(A)
Area Rainfall Intensity	=	$\frac{\text{Varies- See}}{\text{Hydrology Study}}$	(B)
Drainage Area	=	$\frac{58,820 \text{ Acres}}{\text{See Hydrology Study}}$	(C)
Site Area Run-on Discharge (A) x (B) x (C)	=	$\frac{21,928 \text{ ft}^3/\text{sec}}{\text{See Hydrology Study}}$	(D)

Attachment F

Notice of Intent (NOI)

Attachment F

to be inserted here in

Final report

Attachment G

Program for Maintenance, Inspection, and Repair of Construction Site BMPs

<i>The contractor shall use the following guidelines for maintenance, inspection, and repair of BMPs identified in the SWPPP</i>		
BEST MANAGEMENT PRACTICES (BMPs)	INSPECTION FREQUENCY (all controls)	MAINTENANCE/REPAIR PROGRAM
TEMPORARY EROSION CONTROL BMPs*		
EC-1	Minimum requirement	*See CASQA BMP Handbook for repairs and potential alternatives. Inspect prior to rain, during rain events, and weekly during construction phasing.
EC-2	Minimum requirement	
EC-3	Applicability to site conditions	
EC-4	Applicability to site conditions	
EC-5	Applicability to site conditions	
EC-6	Applicability to site conditions	
EC-7	Applicability to site conditions	
EC-8	Applicability to site conditions	
EC-9	Applicability to site conditions	
EC-10	Applicability to site conditions	
EC-11	Applicability to site conditions	
EC-12	Applicability to site conditions	
EC-13	Applicability to site conditions	
TEMPORARY SEDIMENT CONTROL BMPs**		
SE-1	Applicability to site conditions	**See CASQA BMP Handbook for repairs and potential alternatives. Inspect prior to rain, during rain events, and weekly during construction phasing. Replacement of BMP is expected and on going until construction is done. Straw bales may be used to build a washout, or for traffic control. Do not use straw bales to control sediments for this project.
SE-2	Applicability to site conditions	
SE-3	Applicability to site conditions	
SE-4	Applicability to site conditions	
SE-5	Applicability to site conditions	
SE-6	Minimum requirement	
SE-7	Minimum requirement	
SE-8	Minimum requirement	
SE-9	Omitted as sediment control	
SE-10	Applicability to site conditions	
SE-11	Applicability to site conditions	
WIND EROSION CONTROL BMPs		
WE-1	As necessary due to weather or as instructed by inspector	See CASQA handbook
TRACKING CONTROL BMPs		
TC-1	As site conditions change	Stabilize to reduce tracking of dirt, mud, and other sediments onto public roads. Repair when tracking is noticeable.
TC-2	As site conditions change	
TC-3	As site conditions change	

The contractor shall use the following guidelines for maintenance, inspection, and repair of BMPs identified in the SWPPP		
BEST MANAGEMENT PRACTICES (BMPs)	INSPECTION FREQUENCY (all controls)	MAINTENANCE/REPAIR PROGRAM
NON-STORM WATER MANAGEMENT BMPs***		
NS-1	Minimum requirement.	***Applies to all phases of construction.
NS-2	As site conditions change	
NS-3	Minimum requirement	
NS-4	As site conditions change	
NS-5	As site conditions change	
NS-6	As site conditions change	
NS-7	As site conditions change	
NS-8	Minimum requirement	
NS-9	As site conditions change	
NS-10	Minimum requirement	
NS-11	As site conditions change	
NS-12	Minimum requirement	
NS-13	As site conditions change	
NS-14	As site conditions change	
NS-15	As site conditions change	
NS-16	As site conditions change	
WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs		
WM-1	Minimum Requirement	Inspect for damages weekly
WM-2	Minimum Requirement	Inspect for damages weekly
WM-3	Minimum Requirement	Inspect for damages weekly
WM-4	Minimum Requirement	Keep clean up materials by use ares
WM-5	Minimum Requirement	Police site. See CASQA BMP Manual.
WM-6	Minimum Requirement	Construction foreman inspects site daily.
WM-7	Minimum Requirement	Inspect for damages weekly
WM-8	Minimum Requirement	Inspect weekly for damages.
WM-9	Minimum Requirement	Arrange regular collection.
WM-10	Minimum Requirement	Inspect for damages weekly.

Attachment H

Storm Water Quality Construction Site Inspection Checklist

GENERAL INFORMATION				
Project Name				
Project N°				
Contractor				
Inspector's Name				
Inspector's Title				
Signature				
Date of Inspection				
Inspection Type (Check Applicable)	<input type="checkbox"/> Prior to forecast rain			<input type="checkbox"/> After a rain event
	<input type="checkbox"/> 24-hr intervals during extended rain			<input type="checkbox"/> Other _____
Season (Check Applicable)	<input type="checkbox"/> Rainy		<input type="checkbox"/> Non-Rainy	
Storm Data	Storm Start Date & Time:		Storm Duration (hrs):	
	Time elapsed since last storm (Circle Applicable Units)	Min.	Hr.	Days
			Approximate Rainfall Amount (inches)	

PROJECT AREA SUMMARY AND DISTURBED SOIL AREA (DSA) SIZE	
Total Project Area	_____ Acres
Field Estimate of Active DSAs	_____ Acres
Field Estimate of Non-Active DSAs	_____ Acres

INSPECTION OF BMPs				
BMP	Yes	No	N/A	Corrective Action
Preservation of Existing Vegetation				
Is temporary fencing provided to preserve vegetation in areas where no construction activity is planned?				
Location:				
Erosion Control				
Does the applied temporary erosion control provide 100% coverage for the affected areas?				
Are any non-vegetated areas that may require temporary erosion control?				
Is the area where erosion controls are used required free from visible erosion?				
Location:				
Temporary Linear Sediment Barriers (Silt Fence, Fiber Rolls, Sandbag Barriers, etc.)				
Are temporary linear sediment barriers properly installed, functional and maintained?				
Are temporary linear sediment barriers free of 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:				
Storm Drain Inlet Protection				
Are storm drain inlets internal to the project properly protected?				
Are storm drain inlet protection devices in working order and being properly maintained?				
Location:				
Sediment Basins				

INSPECTION OF BMPs				
BMP	Yes	No	N/A	Corrective Action
Are basins designed in accordance with the requirements of the General Permit?				
Are basins maintained to provide the required retention/detention?				
Are basin controls (inlets, outlets, diversions, weirs, spillways, and racks) in working order?				
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 15 m 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:				
Tracking Control				
Is the entrance stabilized to prevent tracking				
Is the stabilized entrance inspected daily to ensure that it is working properly				
Are points of ingress/egress to public/private roads inspected and swept and vacuumed as needed?				
Are all paved areas free of visible sediment tracking or other particulate matter?				
Location:				
Wind Erosion Control				
Is dust control implemented?				

INSPECTION OF BMPs				
BMP	Yes	No	N/A	Corrective Action
Location:				
Dewatering Operations				
Are all one-time dewatering operations covered by the General Permit inspected before and as they occur and BMPs implemented as necessary during discharge?				
Is ground water dewatering handled in conformance with the dewatering permit issued by the RWQCB?				
Is required treatment provided for dewatering effluent?				
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 material?				
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 15 m away from downstream drainage facilities and watercourses and protected from run-on and runoff?				
Is wash water contained for infiltration/ evaporation and disposed of appropriately?				
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?				
Location:				
Waste Management & Materials Pollution Control				
Are material storage areas and washout areas protected from run-on and runoff, and located at least 15 m from concentrated flows and downstream drainage facilities?				
Are all material handling and storage areas clean; organized; free of spills, leaks, or any other deleterious material; 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?				

INSPECTION OF BMPs				
BMP	Yes	No	N/A	Corrective Action
Are hazardous materials and wastes stored in appropriate, labeled containers?				
Are proper storage, clean-up, and spill-reporting procedures for hazardous materials and wastes 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 concrete washout facilities functional for receiving and containing concrete waste and are concrete residues prevented from entering the drainage system?				
Do temporary concrete washout facilities provide sufficient volume and freeboard for planned concrete operations?				
Are concrete wastes, including residues from cutting and grinding, contained and disposed of off-site 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 yard, field trailer areas, and at locations where workers congregate for lunch and break periods?				
Is litter from work areas collected and placed in watertight dumpsters?				
Are waste management receptacles free of leaks?				
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 appropriately?				
Does the project conform to the requirements of the 404 permit and/or 1601 agreement?				
Location:				
Illicit Connection/ Discharge				
Is there any evidence of illicit discharges or illegal dumping on the project site?				

INSPECTION OF BMPs				
BMP	Yes	No	N/A	Corrective Action
If yes, has the Owner/Operator been notified?				
Location:				
Discharge Points				
Are discharge points and discharge flows free from visible pollutants?				
Are discharge points free of any significant sediment transport?				
Location:				
SWPPP Update				
Does the SWPPP and Project Schedule adequately reflect the current site conditions and contractor operations?				
Are all BMPs shown on the water pollution control drawings installed in the proper location(s) and according to the details in the SWPPP?				
Location:				
General				
Are there any other potential concerns at the site?				
Location:				
Storm Water Monitoring				
Does storm water discharge directly to a water body listed in the General Permit as impaired for sediment/sedimentation or turbidity?				
If yes, were samples for sediment/sedimentation or turbidity collected pursuant to the sampling and analysis plan in the SWPPP?				
Did the sampling results indicate that the discharges are causing or contributing to further impairment?				
If yes, were the erosion/sediment control BMPs improved or maintained to reduce the discharge of sediment to the water body?				

INSPECTION OF BMPs				
BMP	Yes	No	N/A	Corrective Action
Were there any BMPs not properly implemented or breaches, malfunctions, leakages or spills observed which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water?				
If yes, were samples for non-visually detectable pollutants collected pursuant to the sampling and analysis plan during rain events?				
If sampling indicated pollution of the storm water, were the leaks, breaches, spills, etc. cleaned up and the contaminated soil properly disposed of?				
Were the BMPs maintained or replaced?				
Were soil amendments (e.g., gypsum, lime) used on the project?				
If yes, were samples for non-visually detectable pollutants collected pursuant to the sampling and analysis plan in the SWPPP?				
If sampling indicated pollution of the storm water by the use of the soil amendments, is there a contingency plan for retention onsite of the polluted storm water?				
Did storm water contact stored materials or waste and run off the construction site? (Materials not in watertight containers, etc.)				
If yes, were samples for non-visually detectable pollutants collected pursuant to the sampling and analysis plan in the SWPPP?				

*Attachment I
Trained Contractor Personnel Log*

Name	Company	Phone

COMMENTS:

Attachment J

Subcontractor Notification Letter and Notification Log

SWPPP Notification

Company
Address
City, State, ZIP

Dear Sir/Madam,

Please be advised that the California State Water Resources Control Board has adopted the General Permit (General Permit) for Storm Water Discharges Associated with Construction Activity (CAS000002). The goal of these permits is prevent the discharge of pollutants associated with construction activity from entering the storm drain system, ground and surface waters.

[Owner] has developed a Storm Water Pollution Prevention Plan (SWPPP) in order to implement the requirements of the Permits.

As a subcontractor, you are required to comply with the SWPPP and the Permits for any work that you perform on site. Any person or group who violates any condition of the Permits may be subject to substantial penalties in accordance with state and federal law. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP and the Permits. A copy of the Permits and the SWPPP are available for your review at the construction office. Please contact me if you have further questions.

Sincerely,

Name
Title

Attachment K

EXAMPLE OF:

Notice of Non-Compliance

To: Name of Owner [City/Agency Engineer]/Regional Board Staff Date: Insert Date

Subject: Notice of Non-Compliance

Project Name: Insert Project Name

Project Number/Location: Project number

In accordance with the NPDES Statewide Permit for Storm Water Discharges Associated with Construction Activity, the following instance of discharge is noted:

Date, time, and location of discharge

Insert description and date of event

Nature of the operation that caused the discharge

insert description of operation

Initial assessment of any impact cause by the discharge

insert assessment

Existing BMP(s) in place prior to discharge event

list BMPs in place

Date of deployment and type of BMPs deployed after the discharge.

BMPs deployed after the discharge (with dates)

Steps taken or planned to reduce, eliminate and/or prevent recurrence of the discharge

insert steps taken to prevent recurrence

Implementation and maintenance schedule for any affected BMPs

insert implementation and maintenance schedule

If further information or a modification to the above schedule is required, notify the contact person below.

Name of Contact Person

Title

Company

Telephone Number

Signature

Date

Attachment L

Storm Water Pollution Prevention Plan (SWPPP) and Monitoring Program Checklist

CONSTRUCTION PROJECT: _____

PREPARER: _____

CONTRACT NO: _____

SECTION A: STORM WATER POLLUTION PREVENTION PLAN (SWPPP)				
CHECK IF ADDRESSED N/A IF NOT APPLICABLE	SWPPP Section	ITEM	GENERAL PERMIT REF.	COMMENTS
	100	<i>SWPPP Certification and Approval</i>	C.10	
	100.1	SWPPP Certification	C.10	
	100.2	SWPPP Approval	C.10	
	200	<i>SWPPP Amendments</i>	A.4.a, A.16	
	200.1	Amendment number and date entered into SWPPP – Amendment Log	A.4.a, A.16	
	200.2	Amendment Certification and Approval	A.4.a, A.16	
	300	<i>Introduction/Project Description</i>		
	300.1	Project Description and Location (narrative)	A.5.a.1	
	300.2	Unique Site Features (narrative)	A.5.a.1	
	300.4	<i>Project Schedule (narrative and graphical)</i>	A.5.c.5	
	400	<i>References</i>	A.14	
	500.2	<i>Vicinity Map (narrative or graphic)</i>	A.5.a.1	
	500.2	Site perimeter	A.5.a.1	
	500.2	Geographic Features	A.5.a.1	
	500.2	General topography	A.5.a.1	
	500.4	<i>Water Pollution Control Drawings (WPCDs) (graphic or narrative)</i>	A.5.a.2	
	500.4	Site perimeter	A.5.a.2	

SECTION A: STORM WATER POLLUTION PREVENTION PLAN (SWPPP)				
CHECK IF ADDRESSED N/A IF NOT APPLICABLE	SWPPP Section	ITEM	GENERAL PERMIT REF.	COMMENTS
	500.4	Existing and proposed buildings, lots, and roadways	A.5.a.2	
	500.4	Storm water collection and discharge points	A.5.a.2	
	500.4	General topography before and after construction	A.5.a.2	
	500.4	Anticipated discharge location(s)	A.5.a.2	
	500.4	Drainage patterns including the entire relevant drainage areas	A.5.a.2	
	500.4	Temporary on-site drainage(s)	A.5.a.2	
	500.3	<i>Pollutant Source and BMP Identification (narrate/ or indicate on site map)</i>	A.5.b	
		<i>Drainage</i>	A.5.b.1	
	500.4	Drainage patterns after major grading	A.5.b.1	
	500.4	Slopes after major grading	A.5.b.1	
	Attach. E	Calculations for storm water run-on	A.5.b.1	
	500.4	BMPs that divert off-site drainage from passing through site	A.5.b.1	
	500.4	<i>Storm Water Inlets</i>	A.5.b.2	
	500.4	Drainage patterns to storm water inlets or receiving water	A.5.b.2	
	500.4	BMPs that protect storm water inlets or receiving water	A.5.b.2	
		<i>Site History (narrative; if possible, indicate location(s) on the Water Pollution Control Drawings)</i>	A.5.b	
	500.3.3	Nature of fill material and data describing the soil. Description of toxic materials treated, stored, disposed, spilled or leaked on site	A.5.b.3	
	500.3.8 & 500.3.9	BMPs that minimize contact of contaminants with storm water	A.5.b.3	
		<i>Location of Areas Designated for:</i>	A.5.b.4	
	500.3.8 & 500.4	Vehicle storage & service	A.5.b.4	
	500.3.8 & 500.4	Equipment storage, cleaning, maintenance	A.5.b.4	
	500.3.9 & 500.4	Soil or waste storage	A.5.b.4	
	500.3.9 & 500.4	Construction material loading, unloading, storage and access	A.5.b.4	
	500.3.8 & 500.3.9	Areas outside of physical site (yards, borrow areas, etc.)		
		<i>BMP Locations or Descriptions for:</i>	A.5.b.5	
	500.3.9 & 500.4	Waste handling and disposal areas	A.5.b.5	

SECTION A: STORM WATER POLLUTION PREVENTION PLAN (SWPPP)				
CHECK IF ADDRESSED N/A IF NOT APPLICABLE	SWPPP Section	ITEM	GENERAL PERMIT REF.	COMMENTS
	500.3.9 & 500.4	On-site storage and disposal of construction materials and waste	A.5.b.5	
	500.3.8, 500.3.9 & 500.4	Minimum exposure of storm water to construction materials, equipment, vehicles, waste	A.5.b.5	
	500.6	Post Construction BMPs	A.5.b.6	
	500.6.1	Listing or Description of Post-construction BMPs	A.5.b.6	
	500.4	Location of post-construction BMPs	A.5.b.6	
	500.6.2	Parties responsible for long-term maintenance	A.5.b.6	
		Additional Information	A.5.c	
	500.3.1	Description of other pollutant sources and BMPs	A.5.c.1	
	500.3.2	Pre-construction control practices	A.5.c.1	
	500.3.1	Inventory of materials and activities that may pollute storm water	A.5.c.2	
	500.3.8 & 500.3.9	BMPs to reduce/eliminate potential pollutants listed in the inventory	A.5.c.2	
	300.4	Runoff coefficient (before & after)	A.5.c.3	
	300.4	Percent impervious (before & after)	A.5.c.3	
	Attach. F	Copy of the NOT	A.5.c.4	
	300.3	Construction activity schedule	A.5.c.5	
	300.5	Contact information	A.5.c.6	
	500.4.1	SOIL STABILIZATION (EROSION CONTROL)	A.6	
		The SWPPP shall include:	A.6.a-c	
	500.4	Areas of vegetation on site	A.6.a.1	
	500.4	Areas of soil disturbance that will be stabilized during rainy season	A.6.a.2	
	500.4	Areas of soil disturbance which will be exposed during any part of the rainy season	A.6.a.3	
	300.4	Implementation schedule for erosion control measures	A.6.a.4	
	500.3.4	BMPs for erosion control	A.6.b	
	500.3.7	BMPs to control wind erosion	A.6.c	
	500.3.5	SEDIMENT CONTROL	A.8	
	500.3.5 & 500.4	Description/Illustration of BMPs to prevent increase of sediment load in discharge	A.8	

SECTION A: STORM WATER POLLUTION PREVENTION PLAN (SWPPP)				
CHECK IF ADDRESSED N/A IF NOT APPLICABLE	SWPPP Section	ITEM	GENERAL PERMIT REF.	COMMENTS
	300.4, 500.3.5	Implementation schedule for sediment control measures	A.8	
	500.3.6	BMPs to control sediment tracking	A.8	
	500.3.8 & 500.3.9	NON-STORM WATER MANAGEMENT	A.9	
	500.3.8 & 500.3.9	Description of non-storm water discharges to receiving waters	A.9	
	500.3.8 & 500.3.9	Locations of discharges	A.9	
	500.3.8 & 500.3.9	Description of BMPs	A.9	
	300.5	Name and phone number of person responsible for non-storm water management	A.9	
	500.6	POST-CONSTRUCTION	A.10	
	500.6.1	Description of post-construction BMPs	A.10	
	500.6.2	Operation/Maintenance of BMPs after project completion (including short-term funding, long-term funding and responsible party)	A.10	
	500.5	MAINTENANCE, INSPECTIONS, AND REPAIR	A.11	
	300.5, 600.1	Name and phone number of person(s) responsible for inspections	A.11	
	600.1, Attach. H	Complete inspection checklist: date, weather, inadequate BMPs, visual observations of BMPs, corrective action, inspector's name, title, signature	A.11.a-f	
		OTHER REQUIREMENTS	A.12-16	
	500.7	Documentation of all training	A.12	
	500.8	List of Contractors/Subcontractors	A.13	

SECTION B: MONITORING AND REPORTING REQUIREMENTS				
CHECK IF ADDRESSED N/A IF NOT APPLICABLE	SWPPP Section	ITEM	GENERAL PERMIT REF.	COMMENTS
	600.1	Description of Site Inspection Plans	B.3	
	100.3	Compliance certification (annually 7/1)	B.4	
	600.2	Discharge reporting	B.5	
	600.3	Keep records of all inspections, compliance certifications, and noncompliance reports on site for a period of at least three years	B.6	
	600.4	Sampling and Analysis Plan for Sediment	B.7	

SECTION B: MONITORING AND REPORTING REQUIREMENTS				
CHECK IF ADDRESSED N/A IF NOT APPLICABLE	SWPPP Section	ITEM	GENERAL PERMIT REF.	COMMENTS
	600.5	Sampling and Analysis Plan for Non-Visible Pollutants	B.8	

SECTION C: STANDARD PROVISIONS FOR CONSTRUCTION ACTIVITIES				
CHECK IF ADDRESSED N/A IF NOT APPLICABLE	SWPPP Section	ITEM	GENERAL PERMIT REF.	COMMENTS
	100.1	Signed SWPPP Certification	C.9,10	

Attachment M

Annual Certification of Compliance Form

Project Name: _____

Project Number: _____

Company Name: _____

Address: _____

Construction Start Date: _____ **Completion Date:** _____

This project is in compliance with the General Permit and this SWPPP (check yes or no) **YES** **NO**

Description of Work:

description of work

Work Now in Progress:

work in progress

Work Planned for Next 12 Months:

work planned

"I certify under penalty of law that, during the past 12 months, the construction activities are in compliance with the requirements of the General Permit and this SWPPP. This Certification is based upon the site inspections required in Section B, Item 3 of the General Permit. This document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Owner (or Authorized Representative) Signature

Date

Name and Title

Telephone Number

Attachment N

Other Plans and Permits

- A. Copy of SWRCB Permit (CAS000002)
Original Permit is posted on site.
Enclosed is a list of SWRCB and RWQCB Contacts.

STATE WATER RESOURCES CONTROL BOARD (SWRCB)
ORDER NO. 99 - 08 - DWQ
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT NO. CAS000002

WASTE DISCHARGE REQUIREMENTS (WDRS)
FOR
DISCHARGES OF STORM WATER RUNOFF ASSOCIATED WITH
CONSTRUCTION ACTIVITY

The State Water Resources Control Board finds that:

1. Federal regulations for controlling pollutants in storm water runoff discharges were promulgated by the U.S. Environmental Protection Agency (USEPA) on November 16, 1990 (40 Code of Federal Regulations (CFR) Parts 122, 123, and 124). The regulations require discharges of storm water to surface waters associated with construction activity including clearing, grading, and excavation activities (except operations that result in disturbance of less than five acres of total land area and which are not part of a larger common plan of development or sale) to obtain an NPDES permit and to implement Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate storm water pollution.

On December 8, 1999 federal regulations promulgated by USEPA (40CFR Parts 9, 122, 123, and 124) expanded the NPDES storm water program to include storm water discharges from municipal separate storm sewer systems (MS4s) and construction sites that were smaller than those previously included in the program. Federal regulation 40 CFR § 122.26(b)(15) defines small construction activity as including clearing, grading, and excavating that result in land disturbance of equal to or greater than one acre or less than five acres or is part of a larger common plan of development or sale. Permit applications for small construction activities are due by March 10, 2003.

2. This General Permit regulates pollutants in discharges of storm water associated with construction activity (storm water discharges) to surface waters, except from those areas on Tribal Lands; Lake Tahoe Hydrologic Unit; construction projects which disturb less than one acre, unless part of a larger common plan of development or sale; and storm water discharges which are determined ineligible for coverage under this General Permit by the California Regional Water Quality Control Boards (RWQCBs). Attachment 1 contains addresses and telephone numbers of each RWQCB office.
3. This General Permit does not preempt or supersede the authority of local storm water management agencies to prohibit, restrict, or control storm water discharges to separate storm sewer systems or other watercourses within their jurisdiction, as allowed by State and Federal law.

4. To obtain authorization for proposed storm water discharges to surface waters, pursuant to this General Permit, the landowner (discharger) must submit a Notice of Intent (NOI) with a vicinity map and the appropriate fee to the SWRCB prior to commencement of construction activities. In addition, coverage under this General Permit shall not occur until the applicant develops a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the requirements of Section A of this permit for the project. For proposed construction activity conducted on easements or on nearby property by agreement or permission, or by an owner or lessee of a mineral estate (oil, gas, geothermal, aggregate, precious metals, and/or industrial minerals) entitled to conduct the activities, the entity responsible for the construction activity must submit the NOI and filing fee and shall be responsible for development of the SWPPP.
5. If an individual NPDES Permit is issued to a discharger otherwise subject to this General Permit or if an alternative General Permit is subsequently adopted which covers storm water discharges regulated by this General Permit, the applicability of this General Permit to such discharges is automatically terminated on the effective date of the individual permit or the date of approval for coverage under the subsequent General Permit.
6. This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with section 13389 of the California Water Code.
7. The SWRCB adopted the California Ocean Plan, and the RWQCBs have adopted and the SWRCB has approved Water Quality Control Plans (Basin Plans). Dischargers regulated by this General Permit must comply with the water quality standards in these Basin Plans and subsequent amendments thereto.
8. The SWRCB finds storm water discharges associated with construction activity to be a potential significant sources of pollutants. Furthermore, the SWRCB finds that storm water discharges associated with construction activities have the reasonable potential to cause or contribute to an excursion above water quality standards for sediment in the water bodies listed in Attachment 3 to this permit.
9. It is not feasible at this time to establish numeric effluent limitations for pollutants in storm water discharges from construction activities. Instead, the provisions of this General Permit require implementation of Best Management Practices (BMPs) to control and abate the discharge of pollutants in storm water discharges.
10. Discharges of non-storm water may be necessary for the completion of certain construction projects. Such discharges include, but are not limited to: irrigation of vegetative erosion control measures, pipe flushing and testing, street cleaning, and dewatering. Such discharges are authorized by this General Permit as long as they (a) do comply with Section A.9 of this General Permit, (b) do not cause or contribute to violation of any water quality standard, (c) do not violate any other provision of this

General Permit, (d) do not require a non-storm water permit as issued by some RWQCBs, and (e) are not prohibited by a Basin Plan. If a non-storm water discharge is subject to a separate permit adopted by a RWQCB, the discharge must additionally be authorized by the RWQCB permit.

11. Following adoption of this General Permit, the RWQCBs shall enforce the provisions herein including the monitoring and reporting requirements.
12. Following public notice in accordance with State and Federal laws and regulations, the SWRCB in a public meeting on June 8, 1998, heard and considered all comments. The SWRCB has prepared written responses to all significant comments.
13. This Order is an NPDES permit in compliance with section 402 of the Clean Water Act (CWA) and shall take effect upon adoption by the SWRCB provided the Regional Administrator of the USEPA has no objection. If the USEPA Regional Administrator objects to its issuance, the General Permit shall not become effective until such objection is withdrawn.
14. This General Permit does not authorize discharges of fill or dredged material regulated by the U.S. Army Corps of Engineers under CWA section 404 and does not constitute a waiver of water quality certification under CWA section 401.
15. The Monitoring Program and Reporting Requirements are modified in compliance with a judgment in the case of San Francisco BayKeeper, et al. v. State Water Resources Control Board. The modifications include sampling and analysis requirements for direct discharges of sediment to waters impaired due to sediment and for pollutants that are not visually detectable in runoff that may cause or contribute to an exceedance of water quality objectives.
16. Storm water discharges associated with industrial activity that are owned or operated by municipalities serving populations less than 100,000 people are no longer exempt from the need to apply for or obtain a storm water discharge permit. A temporary exemption, which was later extended by USEPA, was provided under section 1068(c) of the Intermodal Surface Transportation and Efficiency Act (ISTEA) of 1991. Federal regulation 40 CFR § 122.26(e)(1)(ii) requires the above municipalities to submit permit application by March 10, 2003.
17. This permit may be reopened and modified to include different monitoring requirements for small construction activity than for construction activity over five (5) acres.

IT IS HEREBY ORDERED that all dischargers who file an NOI indicating their intention to be regulated under the provisions of this General Permit shall comply with the following:

A. DISCHARGE PROHIBITIONS:

1. Authorization pursuant to this General Permit does not constitute an exemption to applicable discharge prohibitions prescribed in Basin Plans, as implemented by the nine RWQCBs.
2. Discharges of material other than storm water which are not otherwise authorized by an NPDES permit to a separate storm sewer system (MS4) or waters of the nation are prohibited, except as allowed in Special Provisions for Construction Activity, C.3.
3. Storm water discharges shall not cause or threaten to cause pollution, contamination, or nuisance.
4. Storm water discharges regulated by this General Permit shall not contain a hazardous substance equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302.

B. RECEIVING WATER LIMITATIONS:

1. Storm water discharges and authorized nonstorm water discharges to any surface or ground water shall not adversely impact human health or the environment.
2. The SWPPP developed for the construction activity covered by this General Permit shall be designed and implemented such that storm water discharges and authorized nonstorm water discharges shall not cause or contribute to an exceedance of any applicable water quality standards contained in a Statewide Water Quality Control Plan and/or the applicable RWQCB's Basin Plan.
3. Should it be determined by the discharger, SWRCB, or RWQCB that storm water discharges and/or authorized nonstorm water discharges are causing or contributing to an exceedance of an applicable water quality standard, the discharger shall:
 - a. Implement corrective measures immediately following discovery that water quality standards were exceeded, followed by notification to the RWQCB by telephone as soon as possible but no later than 48 hours after the discharge has been discovered. This notification shall be followed by a report within 14-calendar days to the appropriate RWQCB, unless otherwise directed by the RWQCB, describing (1) the nature and cause of the water quality standard exceedance; (2) the BMPs currently being implemented; (3) any additional BMPs which will be implemented to

prevent or reduce pollutants that are causing or contributing to the exceedance of water quality standards; and (4) any maintenance or repair of BMPs. This report shall include an implementation schedule for corrective actions and shall describe the actions taken to reduce the pollutants causing or contributing to the exceedance.

- b. The discharger shall revise its SWPPP and monitoring program immediately after the report to the RWQCB to incorporate the additional BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring needed.
- c. Nothing in this section shall prevent the appropriate RWQCB from enforcing any provisions of this General Permit while the discharger prepares and implements the above report.

C. SPECIAL PROVISIONS FOR CONSTRUCTION ACTIVITY:

- 1. All dischargers shall file an NOI and pay the appropriate fee for construction activities conducted at each site as required by Attachment 2: Notice of Intent--General Instructions.
- 2. All dischargers shall develop and implement a SWPPP in accordance with Section A: Storm Water Pollution Prevention Plan. The discharger shall implement controls to reduce pollutants in storm water discharges from their construction sites to the BAT/BCT performance standard.
- 3. Discharges of non-storm water are authorized only where they do not cause or contribute to a violation of any water quality standard and are controlled through implementation of appropriate BMPs for elimination or reduction of pollutants. Implementation of appropriate BMPs is a condition for authorization of non-storm water discharges. Non-storm water discharges and the BMPs appropriate for their control must be described in the SWPPP. Wherever feasible, alternatives which do not result in discharge of nonstorm water shall be implemented in accordance with Section A.9. of the SWPPP requirements.
- 4. All dischargers shall develop and implement a monitoring program and reporting plan in accordance with Section B: Monitoring Program and Reporting Requirements.
- 5. All dischargers shall comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to separate storm sewer systems or other watercourses under their jurisdiction, including applicable requirements in municipal storm water management programs developed to comply with NPDES permits issued by the RWQCBs to local agencies.

6. All dischargers shall comply with the standard provisions and reporting requirements contained in Section C: Standard Provisions.
7. The discharger may terminate coverage for a portion of the project under this General Permit when ownership of a portion of this project has been transferred or when a phase within this multi-phase project has been completed. When ownership has transferred, the discharger must submit to its RWQCB a Change of Information Form (COI) Attachment 4 with revised site map and the name, address and telephone number of the new owner(s). Upon transfer of title, the discharger should notify the new owner(s) of the need to obtain coverage under this General Permit. The new owner must comply with provisions of Sections A. 2. (c) and B. 2. (b) of this General Permit. To terminate coverage for a portion of the project when a phase has been completed, the discharger must submit to its RWQCB a COI with a revised map that identifies the newly delineated site.
8. The discharger may terminate coverage under this General Permit for a complete project by submitting to its RWQCB a Notice of Termination Form (NOT), and the post-construction BMPs plan according to Section A.10 of this General Permit. Note that a construction project is considered complete only when all portions of the site have been transferred to a new owner; or the following conditions have been met:
 - a. There is no potential for construction related storm water pollution,
 - b. All elements of the SWPPP have been completed,
 - c. Construction materials and waste have been disposed of properly,
 - d. The site is in compliance with all local storm water management requirements, and
 - e. A post-construction storm water management plan is in place as described in the site's SWPPP.
9. This General Permit expires five years from the date of adoption.

D. REGIONAL WATER QUALITY CONTROL BOARD (RWQCB) AUTHORITIES:

1. RWQCBs shall:
 - a. Implement the provisions of this General Permit. Implementation of this General Permit may include, but is not limited to requesting the submittal of SWPPPS, reviewing SWPPPs, reviewing monitoring reports, conducting compliance inspections, and taking enforcement actions.
 - b. Issue permits as they deem appropriate to individual dischargers, categories of dischargers, or dischargers in a geographic area. Upon issuance of such permits by a RWQCB, the affected dischargers shall no longer be regulated by this General Permit.
2. RWQCBs may require, on a case-by-case basis, the inclusion of an analysis of potential downstream impacts on receiving waterways due to the permitted construction.
3. RWQCBs may provide information to dischargers on the development and implementation of SWPPPs and monitoring programs and may require revisions to SWPPPs and monitoring programs.
4. RWQCBs may require dischargers to retain records for more than three years.
5. RWQCBs may require additional monitoring and reporting program requirements including sampling and analysis of discharges to water bodies listed in Attachment 3 to this permit. Additional requirements imposed by the RWQCB should be consistent with the overall monitoring effort in the receiving waters.
6. RWQCBs may issue individual NPDES permits for those construction activities found to be ineligible for coverage under this permit.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on August 19, 1999.

AYE: James M. Stubchaer
Mary Jane Forster
John W. Brown
Arthur G. Baggett, Jr.

NO: None

ABSENT: None

ABSTAIN: None

/s/
Maureen Marché
Administrative Assistant to the Board

SECTION A: STORM WATER POLLUTION PREVENTION PLAN

1. Objectives

A Storm Water Pollution Prevention Plan (SWPPP) shall be developed and implemented to address the specific circumstances for each construction site covered by this General Permit. The SWPPP shall be certified in accordance with the signatory requirements of section C, Standard Provision for Construction Activities (9). The SWPPP shall be developed and amended or revised, when necessary, to meet the following objectives:

- a. Identify all pollutant sources including sources of sediment that may affect the quality of storm water discharges associated with construction activity (storm water discharges) from the construction site, and
- b. Identify non-storm water discharges, and
- c. Identify, construct, implement in accordance with a time schedule, and maintain Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized nonstorm water discharges from the construction site during construction, and
- d. Develop a maintenance schedule for BMPs installed during construction designed to reduce or eliminate pollutants after construction is completed (post-construction BMPs).
- e. Identify a sampling and analysis strategy and sampling schedule for discharges from construction activity which discharge directly into water bodies listed on Attachment 3. (Clean Water Act Section 303(d) [303(d)] Water Bodies listed for Sedimentation).
- f. For all construction activity, identify a sampling and analysis strategy and sampling schedule for discharges that have been discovered through visual monitoring to be potentially contaminated by pollutants not visually detectable in the runoff.

2. Implementation Schedule

- a. For construction activity commencing on or after adoption of this General Permit, the SWPPP shall be developed prior to the start of soil-disturbing activity in accordance with this Section and shall be implemented concurrently with commencement of soil-disturbing activities.
- b. Existing permittees engaging in construction activities covered under the terms of the previous General Construction Permit SWPPP (WQ Order No.92-08-DWQ) shall continue to implement their existing SWPPP and shall implement any

necessary revisions to their SWPPP in accordance with this Section of the General Permit in a timely manner, but in no case more than 90-calender days from the date of adoption of this General Permit.

- c. For ongoing construction activity involving a change of ownership of property, the new owner shall review the existing SWPPP and amend if necessary, or develop a new SWPPP within 45-calender days.
- d. Existing permittees shall revise their SWPPP in accordance with the sampling and analysis modifications prior to August 1, 2001. For ongoing construction activity involving a change of ownership the new owner shall review the existing SWPPP and amend the sampling and analysis strategy, if required, within 45 days. For construction activity commencing after the date of adoption, the SWPPP shall be developed in accordance with the modification language adopted.

3. Availability

The SWPPP shall remain on the construction site while the site is under construction during working hours, commencing with the initial construction activity and ending with termination of coverage under the General Permit.

4. Required Changes

- a. The discharger shall amend the SWPPP whenever there is a change in construction or operations which may affect the discharge of pollutants to surface waters, ground waters, or a municipal separate storm sewer system (MS4). The SWPPP shall also be amended if the discharger violates any condition of this General Permit or has not achieved the general objective of reducing or eliminating pollutants in storm water discharges. If the RWQCB determines that the discharger is in violation of this General Permit, the SWPPP shall be amended and implemented in a timely manner, but in no case more than 14-calendar days after notification by the RWQCB. All amendments should be dated and directly attached to the SWPPP.
- b. The RWQCB or local agency with the concurrence of the RWQCB may require the discharger to amend the SWPPP.

5. Source Identification

The SWPPP shall include: (a) project information and (b) pollutant source identification combined with an itemization of those BMPs specifically chosen to control the pollutants listed.

- a. Project Information

- (1) The SWPPP shall include a vicinity map locating the project site with respect to easily identifiable major roadways, geographic features, or landmarks. At a minimum, the map must show the construction site perimeter, the geographic features surrounding the site, and the general topography.
- (2) The SWPPP shall include a site map(s) which shows the construction project in detail, including the existing and planned paved areas and buildings.
 - (a) At a minimum, the map must show the construction site perimeter; existing and proposed buildings, lots, roadways, storm water collection and discharge points; general topography both before and after construction; and the anticipated discharge location(s) where the storm water from the construction site discharges to a municipal storm sewer system or other water body.
 - (b) The drainage patterns across the project area must clearly be shown on the map, and the map must extend as far outside the site perimeter as necessary to illustrate the relevant drainage areas. Where relevant drainage areas are too large to depict on the map, map notes or inserts illustrating the upstream drainage areas are sufficient.
 - (c) Temporary on-site drainages to carry concentrated flow shall be selected to comply with local ordinances, to control erosion, to return flows to their natural drainage courses, and to prevent damage to downstream properties.
3. Information presented in the SWPPP may be represented either by narrative or by graphics. Where possible, narrative descriptions should be plan notes. Narrative descriptions which do not lend themselves to plan notes can be contained in a separate document which must be referenced on the plan.

b. Pollutant Source and BMP Identification

The SWPPP shall include a description of potential sources which are likely to add pollutants to storm water discharges or which may result in nonstorm water discharges from the construction site. Discharges originating from off-site which flow across or through areas disturbed by construction that may contain pollutants should be reported to the RWQCB.

The SWPPP shall:

- (1) Show drainage patterns and slopes anticipated after major grading activities are completed. Runoff from off-site areas should be prevented from flowing through areas that have been disturbed by construction unless appropriate conveyance systems are in place. The amount of anticipated storm water run-on must be considered to determine the appropriateness of the BMPs chosen. Show all calculations for anticipated storm water run-on, and describe all BMPs implemented to divert off-site drainage described in section A. 5 a. (2) (c) around or through the construction project.
- (2) Show the drainage patterns into each on-site storm water inlet point or receiving water. Show or describe the BMPs that will protect operational storm water inlets or receiving waters from contaminated discharges other than sediment discharges, such as, but not limited to: storm water with elevated pH levels from contact with soil amendments such as lime or gypsum; slurry from sawcutting of concrete or asphalt ;washing of exposed aggregate concrete; concrete rinse water; building washing operations; equipment washing operations; minor street washing associated with street delineation; and/or sealing and paving activities occurring during rains.
- (3) Show existing site features that, as a result of known past usage, may contribute pollutants to storm water, (e.g., toxic materials that are known to have been treated, stored, disposed, spilled, or leaked onto the construction site). Show or describe the BMPs implemented to minimize the exposure of storm water to contaminated soil or toxic materials.
- (4) Show areas designated for the (a) storage of soil or waste, (b) vehicle storage and service areas, (c) construction material loading, unloading, and access areas, (d) equipment storage, cleaning, and maintenance areas.
- (5) Describe the BMPs for control of discharges from waste handling and disposal areas and methods of on-site storage and disposal of construction materials and construction waste. Describe the BMPs designed to minimize or eliminate the exposure of storm water to construction materials, equipment, vehicles, waste storage areas, or service areas. The BMPs described shall be in compliance with Federal, State, and local laws, regulations, and ordinances.
- (6) Describe all post-construction BMPs for the project, and show the location of each BMP on the map. (Post-construction BMPs consist of permanent features designed to minimize pollutant discharges, including sediment, from the site after construction has been completed.) Also, describe the agency or parties to be the responsible party for long-term maintenance of these BMPs.

- (7) Show the locations of direct discharge from the construction site into a Section 303(d) list water body. Show the designated sampling locations in the receiving waters, which represent the prevailing conditions of the water bodies upstream of the construction site discharge and immediately downstream from the last point of discharge.
- (8) Show the locations designated for sampling the discharge from areas identified in Section A. 5. b. (2), (3), and (4) and Section A. 5. c. (1) and (2). Samples shall be taken should visual monitoring indicate that there has been a breach, malfunction, leakage, or spill from a BMP which could result in the discharge in storm water of pollutants that would not be visually detectable, or if storm water comes into contact with soil amendments or other exposed materials or contamination and is allowed to be discharged. Describe the sampling procedure, location, and rationale for obtaining the uncontaminated sample of storm water.

c. Additional Information

- (1) The SWPPP shall include a narrative description of pollutant sources and BMPs that cannot be adequately communicated or identified on the site map. In addition, a narrative description of preconstruction control practices (if any) to reduce sediment and other pollutants in storm water discharges shall be included.
- (2) The SWPPP shall include an inventory of all materials used and activities performed during construction that have the potential to contribute to the discharge of pollutants other than sediment in storm water. Describe the BMPs selected and the basis for their selection to eliminate or reduce these pollutants in the storm water discharges.
- (3) The SWPPP shall include the following information regarding the construction site surface area: the size (in acres or square feet), the runoff coefficient before and after construction, and the percentage that is impervious (e.g., paved, roofed, etc.) before and after construction.
- (4) The SWPPP shall include a copy of the NOI, and the Waste Discharge Identification (WDID) number. Should a WDID number not be received from the SWRCB at the time construction commences, the discharger shall include proof of mailing of the NOI, e.g., certified mail receipt, copy of check, express mail receipt, etc.
- (5) The SWPPP shall include a construction activity schedule which describes all major activities such as mass grading, paving, lot or parcel

improvements at the site and the proposed time frame to conduct those activities.

- (6) The SWPPP shall list the name and telephone number of the qualified person(s) who have been assigned responsibility for prestorm, poststorm, and storm event BMP inspections; and the qualified person(s) assigned responsibility to ensure full compliance with the permit and implementation of all elements of the SWPPP, including the preparation of the annual compliance evaluation and the elimination of all unauthorized discharges.

6. Erosion Control

Erosion control, also referred to as “soil stabilization” is the most effective way to retain soil and sediment on the construction site. The most efficient way to address erosion control is to preserve existing vegetation where feasible, to limit disturbance, and to stabilize and revegetate disturbed areas as soon as possible after grading or construction. Particular attention must be paid to large mass-graded sites where the potential for soil exposure to the erosive effects of rainfall and wind is great. Mass graded construction sites may be exposed for several years while the project is being built out. Thus, there is potential for significant sediment discharge from the site to surface waters.

At a minimum, the discharger/operator must implement an effective combination of erosion and sediment control on all disturbed areas during the rainy season. These disturbed areas include rough graded roadways, slopes, and building pads. Until permanent vegetation is established, soil cover is the most cost-effective and expeditious method to protect soil particles from detachment and transport by rainfall. Temporary soil stabilization can be the single-most important factor in reducing erosion at construction sites. The discharger shall consider measures such as: covering with mulch, temporary seeding, soil stabilizers, binders, fiber rolls or blankets, temporary vegetation, permanent seeding, and a variety of other measures.

The SWPPP shall include a description of the erosion control practices, including a time schedule, to be implemented during construction to minimize erosion on disturbed areas of a construction site. The discharger must consider the full range of erosion control BMPs. The discharger must consider any additional site-specific and seasonal conditions when selecting and implementing appropriate BMPs. The above listed erosion control measures are examples of what should be considered and are not exclusive of new or innovative approaches currently available or being developed.

- a. The SWPPP shall include:

- (1) An outline of the areas of vegetative soil cover or native vegetation onsite which will remain undisturbed during the construction project.
 - (2) An outline of all areas of soil disturbance including cut or fill areas which will be stabilized during the rainy season by temporary or permanent erosion control measures, such as seeding, mulch, or blankets, etc.
 - (3) An outline of the areas of soil disturbance, cut, or fill which will be left exposed during any part of the rainy season, representing areas of potential soil erosion where sediment control BMPs are required to be used during construction.
 - (4) A proposed schedule for the implementation of erosion control measures.
- b. The SWPPP shall include a description of the BMPs and control practices to be used for both temporary and permanent erosion control measures.
 - c. The SWPPP shall include a description of the BMPs to reduce wind erosion at all times, with particular attention paid to stock-piled materials.

7. Stabilization

- (1) All disturbed areas of the construction site must be stabilized. Final stabilization for the purposes of submitting a NOT is satisfied when:
 - All soil disturbing activities are completed AND EITHER OF THE TWO FOLLOWING CRITERIA ARE MET:
 - A uniform vegetative cover with 70 percent coverage has been established OR:
 - equivalent stabilization measures have been employed. These measures include the use of such BMPs as blankets, reinforced channel liners, soil cement, fiber matrices, geotextiles, or other erosion resistant soil coverings or treatments.
- (2) Where background native vegetation covers less than 100 percent of the surface, such as in arid areas, the 70 percent coverage criteria is adjusted as follows: If the native vegetation covers 50 percent of the ground surface, 70 percent of 50 percent ($.70 \times .50 = .35$) would require 35 percent total uniform surface coverage.

8. Sediment Control

The SWPPP shall include a description or illustration of BMPs which will be implemented to prevent a net increase of sediment load in storm water discharge relative to preconstruction levels. Sediment control BMPs are required at appropriate locations along the site perimeter and at all operational internal inlets to the storm drain system at all times during the rainy season. Sediment control practices may include filtration devices and barriers (such as fiber rolls, silt fence, straw bale barriers, and gravel inlet filters) and/or settling devices (such as sediment traps or basins). Effective filtration devices, barriers, and settling devices shall be selected, installed and maintained properly. A proposed schedule for deployment of sediment control BMPs shall be included in the SWPPP. These are the most basic measures to prevent sediment from leaving the project site and moving into receiving waters. Limited exemptions may be authorized by the RWQCB when work on active areas precludes the use of sediment control BMPs temporarily. Under these conditions, the SWPPP must describe a plan to establish perimeter controls prior to the onset of rain.

During the nonrainy season, the discharger is responsible for ensuring that adequate sediment control materials are available to control sediment discharges at the downgrade perimeter and operational inlets in the event of a predicted storm. The discharger shall consider a full range of sediment controls, in addition to the controls listed above, such as straw bale dikes, earth dikes, brush barriers, drainage swales, check dams, subsurface drain, sandbag dikes, fiber rolls, or other controls. At a minimum, the discharger/operator must implement an effective combination of erosion and sediment control on all disturbed areas during the rainy season.

If the discharger chooses to rely on sediment basins for treatment purposes, sediment basins shall, at a minimum, be designed and maintained as follows:

Option 1: Pursuant to local ordinance for sediment basin design and maintenance, provided that the design efficiency is as protective or more protective of water quality than Option 3.

OR

Option 2: Sediment basin(s), as measured from the bottom of the basin to the principal outlet, shall have at least a capacity equivalent to 3,600 cubic feet of storage per acre draining into the sediment basin. The length of the basin shall be more than twice the width of the basin. The length is determined by measuring the distance between the inlet and the outlet; and the depth must not be less than three feet nor greater than five feet for safety reasons and for maximum efficiency.

OR

Option 3: Sediment basin(s) shall be designed using the standard equation:

$$A_s = 1.2Q/V_s$$

Where: A_s is the minimum surface area for trapping soil particles of a certain size; V_s is the settling velocity of the design particle size chosen; and $Q = C \times I \times A$ where Q is the discharge rate measured in cubic feet per second; C is the runoff coefficient; I is the precipitation intensity for the 10-year, 6-hour rain event and A is the area draining into the sediment basin in acres. The design particle size shall be the smallest soil grain size determined by wet sieve analysis, or the fine silt sized (0.01mm) particle, and the V_s used shall be 100 percent of the calculated settling velocity.

The length is determined by measuring the distance between the inlet and the outlet; the length shall be more than twice the dimension as the width; the depth shall not be less than three feet nor greater than five feet for safety reasons and for maximum efficiency (two feet of storage, two feet of capacity). The basin(s) shall be located on the site where it can be maintained on a year-round basis and shall be maintained on a schedule to retain the two feet of capacity;

OR

- Option 4: The use of an equivalent surface area design or equation, provided that the design efficiency is as protective or more protective of water quality than Option 3.

A sediment basin shall have a means for dewatering within 7-calendar days following a storm event. Sediment basins may be fenced if safety (worker or public) is a concern.

The outflow from a sediment basin that discharges into a natural drainage shall be provided with outlet protection to prevent erosion and scour of the embankment and channel.

The discharger must consider any additional site-specific and seasonal conditions when selecting and designing sediment control BMPs. The above listed sediment control measures are examples of what should be considered and are not exclusive of new or innovative approaches currently available or being developed.

The SWPPP shall include a description of the BMPs to reduce the tracking of sediment onto public or private roads at all times. These public and private roads shall be inspected and cleaned as necessary. Road cleaning BMPs shall be discussed in the SWPPP and will not rely on the washing of accumulated sediment or silt into the storm drain system.

9. Non-Storm Water Management

Describe all non-storm water discharges to receiving waters that are proposed for the construction project. Non-storm water discharges should be eliminated or reduced to the extent feasible. Include the locations of such discharges and descriptions of all BMPs designed for the control of pollutants in such discharges. Onetime discharges shall be monitored during the time that such discharges are occurring. A qualified person should be assigned the responsibility for ensuring that no materials other than storm water are discharged in quantities which will have an adverse effect on receiving waters or storm drain systems (consistent with BAT/BCT), and the name and contact number of that person should be included in the SWPPP document.

Discharging sediment-laden water which will cause or contribute to an exceedance of the applicable RWQCB's Basin Plan from a dewatering site or sediment basin into any receiving water or storm drain without filtration or equivalent treatment is prohibited.

10. Post-Construction Storm Water Management

The SWPPP shall include descriptions of the BMPs to reduce pollutants in storm water discharges after all construction phases have been completed at the site (Post-Construction BMPs). Post-Construction BMPs include the minimization of land disturbance, the minimization of impervious surfaces, treatment of storm water runoff using infiltration, detention/retention, biofilter BMPs, use of efficient irrigation systems, ensuring that interior drains are not connected to a storm sewer system, and appropriately designed and constructed energy dissipation devices. These must be consistent with all local post-construction storm water management requirements, policies, and guidelines. The discharger must consider site-specific and seasonal conditions when designing the control practices. Operation and maintenance of control practices after construction is completed shall be addressed, including short-and long-term funding sources and the responsible party.

11. Maintenance, Inspection, and Repair

The SWPPP shall include a discussion of the program to inspect and maintain all BMPs as identified in the site plan or other narrative documents throughout the entire duration of the project. A qualified person will be assigned the responsibility to conduct inspections. The name and telephone number of that person shall be listed in the SWPPP document. Inspections will be performed before and after storm events and once each 24-hour period during extended storm events to identify BMP effectiveness and implement repairs or design changes as soon as feasible depending upon field conditions. Equipment, materials, and workers must be available for rapid response to failures and emergencies. All corrective maintenance to BMPs shall be performed as soon as possible after the conclusion of each storm depending upon worker safety.

For each inspection required above, the discharger shall complete an inspection checklist. At a minimum, an inspection checklist shall include:

- a. Inspection date.

- b. Weather information: best estimate of beginning of storm event, duration of event, time elapsed since last storm, and approximate amount of rainfall (inches).
- c. A description of any inadequate BMPs.
- d. If it is possible to safely access during inclement weather, list observations of all BMPs: erosion controls, sediment controls, chemical and waste controls, and non-storm water controls. Otherwise, list result of visual inspection at relevant outfall, discharge point, or downstream location and projected required maintenance activities.
- e. Corrective actions required, including any changes to SWPPP necessary and implementation dates.
- f. Inspectors name, title, and signature.

The dischargers shall prepare their inspection checklists using the inspection checklist form provided by the SWRCB or RWQCB or on forms that contain the equivalent information.

12. Training

Individuals responsible for SWPPP preparation, implementation, and permit compliance shall be appropriately trained, and the SWPPP shall document all training. This includes those personnel responsible for installation, inspection, maintenance, and repair of BMPs. Those responsible for overseeing, revising, and amending the SWPPP shall also document their training. Training should be both formal and informal, occur on an ongoing basis when it is appropriate and convenient, and should include training/workshops offered by the SWRCB, RWQCB, or other locally recognized agencies or professional organizations.

13. List of Contractors/Subcontractors

The SWPPP shall include a list of names of all contractors, (or subcontractors) and individuals responsible for implementation of the SWPPP. This list should include telephone numbers and addresses. Specific areas of responsibility of each subcontractor and emergency contact numbers should also be included.

14. Other Plans

This SWPPP may incorporate by reference the appropriate elements of other plans required by local, State, or Federal agencies. A copy of any requirements incorporated by reference shall be kept at the construction site.

15. Public Access

The SWPPP shall be provided, upon request, to the RWQCB. The SWPPP is considered a report that shall be available to the public by the RWQCB under section 308(b) of the Clean Water Act.

16. Preparer Certification

The SWPPP and each amendment shall be signed by the landowner (discharger) or his representative and include the date of initial preparation and the date of each amendment.

SECTION B: MONITORING PROGRAM AND REPORTING REQUIREMENTS

1. Required Changes

The RWQCB may require the discharger to conduct additional site inspections, to submit reports and certifications, or perform sampling and analysis.

2. Implementation

- a. The requirements of this Section shall be implemented at the time of commencement of construction activity (see also Section A. 2. Implementation Schedule). The discharger is responsible for implementing these requirements until construction activity is complete and the site is stabilized.
- b. For ongoing construction activity involving a change in ownership of property covered by this General Permit, the new owner must complete a NOI and implement the requirements of this Section concurrent with the change of ownership. For changes of information, the owner must follow instructions in C. 7. Special Provisions for Construction Activity of the General Permit.

3. Site Inspections

Qualified personnel shall conduct inspections of the construction site prior to anticipated storm events, during extended storm events, and after actual storm events to identify areas contributing to a discharge of storm water associated with construction activity. The name(s) and contact number(s) of the assigned inspection personnel shall be listed in the SWPPP. Pre-storm inspections are to ensure that BMPs are properly installed and maintained; post-storm inspections are to assure that the BMPs have functioned adequately. During extended storm events, inspections shall be required each 24-hour period. Best Management Practices (BMPs) shall be evaluated for adequacy and proper implementation and whether additional BMPs are required in accordance with the terms of the General Permit (see language in Section A. 11. Maintenance, Inspection, and Repair). Implementation of nonstorm water discharge BMPs shall be verified and their

effectiveness evaluated. One time discharges of non-storm water shall be inspected when such discharges occur.

4. Compliance Certification

Each discharger or qualified assigned personnel listed by name and contact number in the SWPPP must certify annually that construction activities are in compliance with the requirements of this General Permit and the SWPPP. This Certification shall be based upon the site inspections required in Item 3 of this Section. The certification must be completed by July 1 of each year.

5. Noncompliance Reporting

Dischargers who cannot certify compliance, in accordance with Item 4 of this Section and/or who have had other instances of noncompliance excluding exceedances of water quality standards as defined in section B. 3. Receiving Water Limitations Language, shall notify the appropriate RWQCB within 30 days. Corrective measures should be implemented immediately following discovery that water quality standards were exceeded. The notifications shall identify the noncompliance event, including an initial assessment of any impact caused by the event; describe the actions necessary to achieve compliance; and include a time schedule subject to the modifications by the RWQCB indicating when compliance will be achieved. Noncompliance notifications must be submitted within 30-calendar days of identification of noncompliance.

6. Monitoring Records

Records of all inspections, compliance certifications, and noncompliance reporting must be retained for a period of at least three years from the date generated. With the exception of noncompliance reporting, dischargers are not required to submit these records.

7. Monitoring Program for Sedimentation/Siltation

Dischargers of storm water associated with construction activity that directly enters a water body listed in Attachment 3 shall conduct a sampling and analysis program for the pollutants (sedimentation/siltation or turbidity) causing the impairment. The discharger shall monitor for the applicable parameter. If the water body is listed for sedimentation or siltation, samples should be analyzed for Settleable Solids (ml/l) and Total Suspended Solids (mg/l). Alternatively or in addition, samples may be analyzed for suspended sediment concentration according to ASTM D3977-97. If the water body is listed for turbidity, samples should be analyzed for turbidity (NTU). Discharges that flow through tributaries that are not listed in Attachment 3 or that flow into Municipal Separate Storm Sewer Systems (MS4) are not subject to these sampling and analysis requirements. The sampling and analysis parameters and procedures must be designed to determine whether the BMPs installed and maintained prevent discharges of sediment from contributing to impairment in receiving waters.

Samples shall be collected during the first two hours of discharge from rain events which result in a direct discharge to any water body listed in Attachment 3. Samples shall be collected during daylight hours (sunrise to sunset). Dischargers need not collect more than four (4) samples per month. All samples shall be taken in the receiving waters and shall be representative of the prevailing conditions of the water bodies. Samples shall be collected from safely accessible locations upstream of the construction site discharge and immediately downstream from the last point of discharge.

For laboratory analysis, all sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136. Field samples shall be collected and analyzed according to the specifications of the manufacturer of the sampling devices employed. Portable meters shall be calibrated according to manufacturer's specification. All field and/or laboratory analytical data shall be kept in the SWPPP document, which is to remain at the construction site at all times until a Notice of Termination has been submitted and approved.

8. Monitoring Program for Pollutants Not Visually Detectable in Storm Water

A sampling and analysis program shall be developed and conducted for pollutants which are not visually detectable in storm water discharges, which are or should be known to occur on the construction site, and which could cause or contribute to an exceedance of water quality objectives in the receiving water. Pollutants that should be considered for inclusion in this sampling and analysis program are those identified in Sections A.5.b. and A.5.c.

Construction materials and compounds that are not stored in water-tight containers under a water-tight roof or inside a building are examples of materials for which the discharger may have to implement sampling and analysis procedures. The goal of the sampling and analysis is to determine whether the BMPs employed and maintained on site are effective in preventing the potential pollutants from coming in contact with storm water and causing or contributing to an exceedance of water quality objectives in the receiving waters. Examples of construction sites that may require sampling and analysis include: sites that are known to have contaminants spilled or spread on the ground; sites where construction practices include the application of soil amendments, such as gypsum, which can increase the pH of the runoff; or sites having uncovered stockpiles of material exposed to storm water. Visual observations before, during, and after storm events may trigger the requirement to collect samples. Any breach, malfunction, leakage, or spill observed which could result in the discharge of pollutants to surface waters that *would* not be visually detectable in storm water shall trigger the collection of a sample of discharge. Samples shall be collected at all discharge locations which drain the areas identified by the visual observations and which can be safely accessed. For sites where sampling and analysis is required, personnel trained in water quality sampling procedures shall collect storm water samples. A sufficiently large sample of storm water that has not come in contact with the disturbed soil or the materials stored or used on-site

(uncontaminated sample) shall be collected for comparison with the discharge sample. Samples shall be collected during the first two hours of discharge from rain events that occur during daylight hours and which generate runoff.

The uncontaminated sample shall be compared to the samples of discharge using field analysis or through laboratory analysis. Analyses may include, but are not limited to, indicator parameters such as: pH, specific conductance, dissolved oxygen, conductivity, salinity, and TDS.

For laboratory analysis, all sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136. Field discharge samples shall be collected and analyzed according to the specifications of the manufacturer of the sampling devices employed. Portable meters shall be calibrated according to manufacturer's specification. All field and/or analytical data shall be kept in the SWPPP document, which is to remain at the construction site at all times until a *Notice of Termination* has been submitted and approved.

SECTION C: STANDARD PROVISIONS FOR CONSTRUCTION ACTIVITY

1. Duty to Comply

The discharger must comply with all of the conditions of this General Permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the Porter-Cologne Water Quality Control Act and is grounds for enforcement action and/or removal from General Permit coverage.

The discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this General Permit has not yet been modified to incorporate the requirement.

2. General Permit Actions

This General Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for a General Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not annul any General Permit condition.

If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the CWA for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this General Permit, this General Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the dischargers so notified.

3. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Permit.

4. Duty to Mitigate

The discharger shall take all responsible steps to minimize or prevent any discharge in violation of this General Permit, which has a reasonable likelihood of adversely affecting human health or the environment.

5. Proper Operation and Maintenance

The discharger shall at all times properly operate and maintain any facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with the conditions of this General Permit and with the requirements of Storm Water Pollution Prevention Plans (SWPPP). Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance may require the operation of backup or auxiliary facilities or similar systems installed by a discharger when necessary to achieve compliance with the conditions of this General Permit.

6. Property Rights

This General Permit does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor does it authorize any infringement of Federal, State, or local laws or regulations.

7. Duty to Provide Information

The discharger shall furnish the RWQCB, State Water Resources Control Board, or USEPA, within a reasonable time, any requested information to determine compliance with this General Permit. The discharger shall also furnish, upon request, copies of records required to be kept by this General Permit.

8. Inspection and Entry

The discharger shall allow the RWQCB, SWRCB, USEPA, and/or, in the case of construction sites which discharge through a municipal separate storm sewer, an authorized representative of the municipal operator of the separate storm sewer system receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the discharger's premises at reasonable times where a regulated construction activity is being conducted or where records must be kept under the conditions of this General Permit;
- b. Access and copy at reasonable times any records that must be kept under the conditions of this General Permit;
- c. Inspect at reasonable times the complete construction site, including any off-site staging areas or material storage areas, and the erosion/sediment controls; and
- d. Sample or monitor at reasonable times for the purpose of ensuring General Permit compliance.

9. Signatory Requirements

- a. All Notice of Intent (NOIs), Notice of Terminations (NOTs), SWPPPs, certifications, and reports prepared in accordance with this Order submitted to the SWRCB shall be signed as follows:
 - (1) For a corporation: by a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (a) a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (b) the manager of the construction activity if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - (3) For a municipality, State, Federal, or other public agency: by either a principal executive officer, ranking elected official, or duly authorized representative. The principal executive officer of a Federal agency includes the chief executive officer of the agency or the senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of USEPA).
- b. All SWPPPs, reports, certifications, or other information required by the General Permit and/or requested by the RWQCB, SWRCB, USEPA, or the local storm water management agency shall be signed by a person described above or by a duly authorized representative. A person is a duly authorized representative if:
 - (1) The authorization is made in writing by a person described above and retained as part of the SWPPP; or

- (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the construction activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).
- c. If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the construction activity, a new authorization must be attached to the SWPPP prior to submittal of any reports, information, or certifications to be signed by the authorized representative.

10. Certification

Any person signing documents under Section C, Provision 9 above, shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. Anticipated Noncompliance

The discharger will give advance notice to the RWQCB and local storm water management agency of any planned changes in the construction activity which may result in noncompliance with General Permit requirements.

12. Penalties for Falsification of Reports

Section 309(c)(4) of the CWA provides that any person who knowingly makes any false material statement, representation, or certification in any record or other document submitted or required to be maintained under this General Permit, including reports of compliance or noncompliance shall upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than two years or by both.

13. Oil and Hazardous Substance Liability

Nothing in this General Permit shall be construed to preclude the institution of any legal action or relieve the discharger from any responsibilities, liabilities, or penalties to which the discharger is or may be subject to under Section 311 of the CWA.

14. Severability

The provisions of this General Permit are severable; and, if any provision of this General Permit or the application of any provision of this General Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this General Permit shall not be affected thereby.

15. Reopener Clause

This General Permit may be modified, revoked and reissued, or terminated for cause due to promulgation of amended regulations, receipt of USEPA guidance concerning regulated activities, judicial decision, or in accordance with 40 Code of Federal Regulations (CFR) 122.62, 122.63, 122.64, and 124.5.

16. Penalties for Violations of Permit Conditions

- a. Section 309 of the CWA provides significant penalties for any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA or any permit condition or limitation implementing any such section in a permit issued under Section 402. Any person who violates any permit condition of this General Permit is subject to a civil penalty not to exceed \$27,500 per calendar day of such violation, as well as any other appropriate sanction provided by Section 309 of the CWA.
- b. The Porter-Cologne Water Quality Control Act also provides for civil and criminal penalties which in some cases are greater than those under the CWA.

17. Availability

A copy of this General Permit shall be maintained at the construction site during construction activity and be available to operating personnel.

18. Transfers

This General Permit is not transferable. A new owner of an ongoing construction activity must submit a NOI in accordance with the requirements of this General Permit to be authorized to discharge under this General Permit. An owner who sells property covered

by this General Permit shall inform the new owner of the duty to file a NOI and shall provide the new owner with a copy of this General Permit.

19. Continuation of Expired Permit

This General Permit continues in force and effect until a new General Permit is issued or the SWRCB rescinds this General Permit. Only those dischargers authorized to discharge under the expiring General Permit are covered by the continued General Permit.

SWRCB AND RWQCB CONTACT LIST

Division of Water Quality

P.O. Box 1977

Sacramento, CA 95812-1977

(916) 341-5537 FAX: (916) 341-5543

Web Page: http://www.waterboards.ca.gov/water_issues/programs/stormwater/

Email: stormwater@waterboards.ca.gov

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARDS

NORTH COAST REGION (1)
 5550 Skylane Blvd, Ste. A
 Santa Rose, CA 95403
 (707) 576-2220 FAX: (707)523-0135
<http://www.waterboards.ca.gov/rwqcb1>

SAN FRANCISCO BAY REGION (2)
 1515 Clay Street, Ste. 1400
 Oakland, CA 94612
 (510) 622-2300 FAX: (510) 622-2640
<http://www.waterboards.ca.gov/rwqcb2>

CENTRAL COAST REGION (3)
 895 Aerovista Place, Ste 101
 San Luis Obispo, CA 93401
 (805) 549-3147 FAX: (805) 543-0397
<http://www.waterboards.ca.gov/rwqcb3>

LOS ANGELES REGION (4)
 320 W. 4th Street, Ste. 200
 Los Angeles, CA 90013
 (213) 576-6600 FAX: (213) 576-6640
<http://www.waterboards.ca.gov/rwqcb4>

LAHONTAN REGION (6 SLT)
 2501 Lake Tahoe Blvd.
 South Lake Tahoe, CA 96150
 (530) 542-5400 FAX: (530) 544-2271
<http://www.waterboards.ca.gov/rwqcb6>

VICTORVILLE OFFICE (6V)
 15428 Civic Drive, Ste. 100
 Victorville, CA 92392-2383
 (760) 241-6583 FAX: (760) 241-7308
<http://www.waterboards.ca.gov/rwqcb6>

CENTRAL VALLEY REGION (5S)
 11020 Sun Center Dr., #200
 Rancho Cordova, CA 95670-6114
 (916) 464-3291 FAX: (916) 464-4645
<http://www.waterboards.ca.gov/rwqcb5>

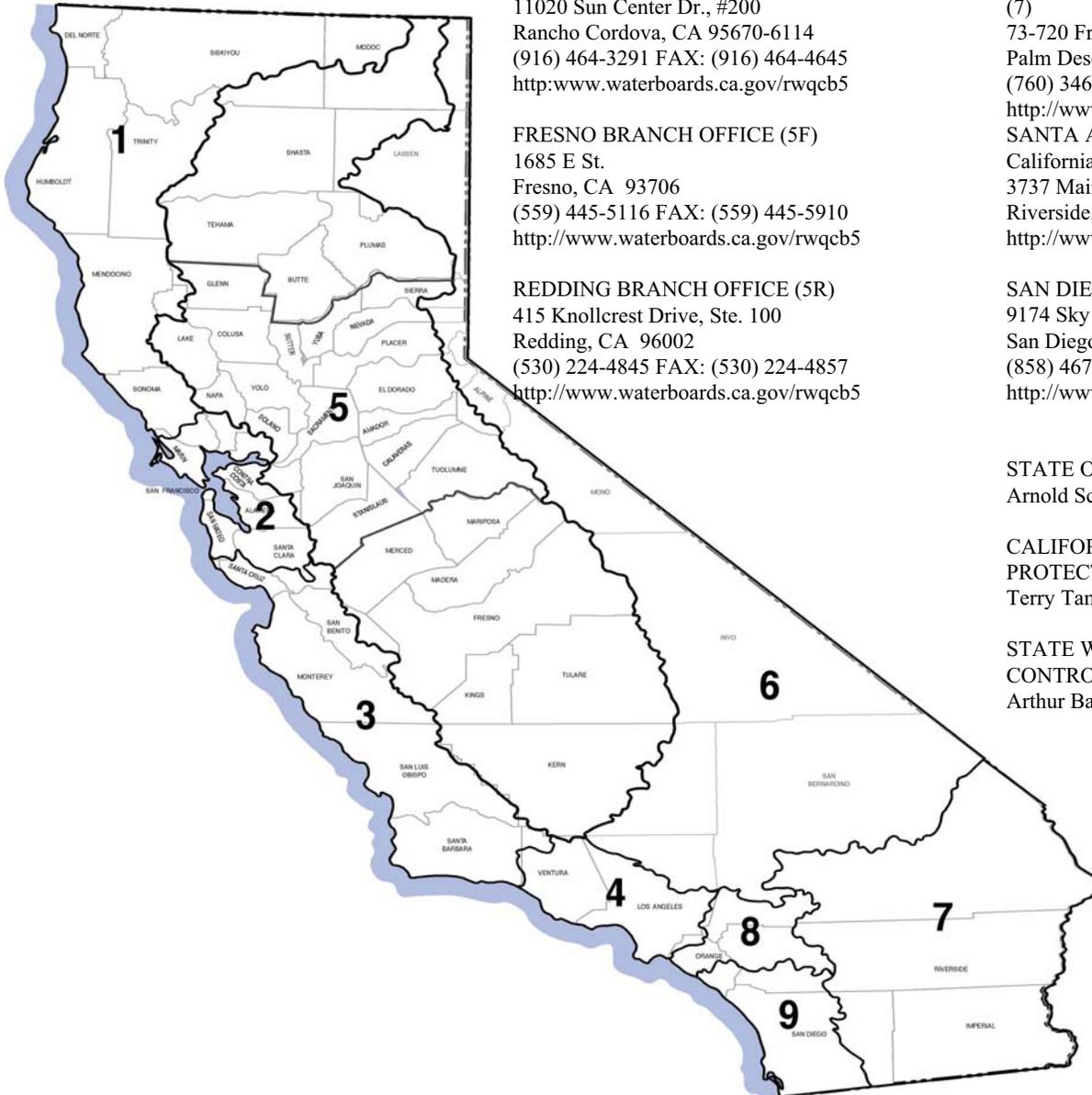
FRESNO BRANCH OFFICE (5F)
 1685 E St.
 Fresno, CA 93706
 (559) 445-5116 FAX: (559) 445-5910
<http://www.waterboards.ca.gov/rwqcb5>

REDDING BRANCH OFFICE (5R)
 415 Knollcrest Drive, Ste. 100
 Redding, CA 96002
 (530) 224-4845 FAX: (530) 224-4857
<http://www.waterboards.ca.gov/rwqcb5>

COLORADO RIVER BASIN REGION (7)
 73-720 Fred Waring Dr., Ste. 100
 Palm Desert, CA 92260
 (760) 346-7491 FAX: (760) 341-6820
<http://www.waterboards.ca.gov/rwqcb7>

SANTA ANA REGION (8)
 California Tower
 3737 Main Street, Ste. 500
 Riverside, CA 92501-3339
<http://www.waterboards.ca.gov/rwqcb8>

SAN DIEGO REGION (9)
 9174 Sky Park Court, Ste. 100
 San Diego, CA 92123-4340
 (858) 467-2952 FAX: (858) 571-6972
<http://www.waterboards.ca.gov/rwqcb9>



STATE OF CALIFORNIA
 Arnold Schwarzenegger, Governor

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
 Terry Tamminen, Secretary

STATE WATER RESOURCES CONTROL BOARD
 Arthur Baggett Jr., Chairman

Attachment O

Water Pollution Control Cost Breakdown

Pending Final Construction Plans and Specifications.

Attachment P

Notice of Termination



Linda S. Adams
Secretary for
Environmental Protection

State Water Resources Control Board

Division of Water Quality

1001 I Street • Sacramento, California 95814 • (916) 341-5537
Mailing Address: P.O. Box 1977 • Sacramento, California • 95812-1977
FAX (916) 341-5543 • Internet Address: <http://www.waterboards.ca.gov/stormwtr/index.html>



Arnold Schwarzenegger
Governor

To: Storm Water Permit Holder

RE: NOTICE OF TERMINATION OF COVERAGE UNDER THE GENERAL
CONSTRUCTION STORM WATER PERMIT (GENERAL PERMIT)

In order for us to terminate your coverage under the General Permit, please complete and submit the enclosed Notice of Termination (NOT) your local Regional Water Quality Control Board (RWQCB). Refer to the last page of the NOT packet for RWQCB locations.

Submittal of a NOT does not guarantee termination and outstanding invoices are still valid. If your NOT is denied, you will be required to continue complying with the requirements of the General Permit and all outstanding invoice(s) are due. You will be notified of your NOT status by the RWQCB or State Water Resources Control Board. Approval of your Notice of Termination does not relieve you from paying any applicable outstanding invoices.

Should you have any questions regarding this matter, please contact your local RWQCB at the number listed on the back page of the NOT package, or the Storm Water Unit at (916) 341-5537.

Sincerely,

Storm Water Unit
Division of Water Quality

Enclosure

SEND TO YOUR LOCAL RWQCB FOR APPROVAL

State of California
State Water Resources Control Board

NOTICE OF TERMINATION

OF COVERAGE UNDER THE NPDES GENERAL PERMIT NO. CAS000002
FOR DISCHARGES OF STORM WATER
ASSOCIATED WITH CONSTRUCTION ACTIVITY

Submission of this Notice of Termination constitutes notice that the owner (and his/her agent) of the site identified on this form is no longer authorized to discharge storm water associated with construction activity by NPDES General Permit No. CAS000002.

I. **WDID NO.** _____

II. **OWNER**

COMPANY NAME _____ CONTACT PERSON _____
STREET ADDRESS _____ TITLE _____
CITY _____ STATE _____ ZIP _____ PHONE _____

III. **CONSTRUCTION SITE INFORMATION**

A. DEVELOPER NAME _____ CONTACT PERSON _____
STREET ADDRESS _____ TITLE _____
CITY _____ CA _____ ZIP _____ PHONE _____

B. SITE ADDRESS _____ COUNTY _____
CITY _____ CA _____ ZIP _____ PHONE _____

IV. **BASIS OF TERMINATION**

- _____ 1. The construction project is complete and the following conditions have been met.
- All elements of the Storm Water Pollution Prevention Plan have been completed.
 - Construction materials and waste have been disposed of properly.
 - The site is in compliance with all local storm water management requirements.
 - A post-construction storm water operation and management plan is in place.
- Date of project completion ____/____/____
- _____ 2. Construction activities have been suspended, either temporarily _____ or indefinitely _____ and the following conditions have been met.
- All elements of the Storm Water Pollution Prevention Plan have been completed.
 - Construction materials and waste have been disposed of properly.
 - All denuded areas and other areas of potential erosion are stabilized.
 - An operation and maintenance plan for erosion and sediment control is in place.
 - The site is in compliance with all local storm water management requirements.
- Date of suspension ____/____/____ Expected start up date ____/____/____
- _____ 3. Site can not discharge storm water to waters of the United States (check one).

SEND TO YOUR LOCAL RWQCB FOR APPROVAL

_____ All storm water is retained on site.

_____ All storm water is discharged to evaporation or percolation ponds offsite.

_____ 4. Discharge of storm water from the site is now subject to another NPDES general permit or an individual NPDES permit.

NPDES Permit No. _____ Date coverage began ____/____/____

_____ 5. There is a new owner of the identified site. Date of owner transfer ____/____/____

Was the new owner notified of the General Permit requirements? YES ____ NO ____

NEW OWNER INFORMATION

COMPANY NAME _____ CONTACT PERSON _____

STREET ADDRESS _____ TITLE _____

CITY _____ STATE _____ ZIP _____ PHONE _____

V. **EXPLANATION OF BASIS OF TERMINATION** (Attach site photographs - see instructions).

VI. **CERTIFICATION:**

I certify under penalty of law that all storm water discharges associated with construction activity from the identified site that are authorized by NPDES General Permit No. CAS000002 have been eliminated or that I am no longer the owner of the site. I understand that by submitting this Notice of Termination, I am no longer authorized to discharge storm water associated with construction activity under the general permit, and that discharging pollutants in storm water associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this Notice of Termination does not release an owner from liability for any violations of the general permit or the Clean Water Act.

PRINTED NAME _____ TITLE _____

SIGNATURE: _____ DATE ____/____/____

REGIONAL WATER BOARD USE ONLY

This Notice of Termination has been reviewed, and I recommend termination of coverage under the subject NPDES general permit.

Printed Name _____ Region No. _____

Signature _____ Date ____/____/____

NOT effective date: Date: ____/____/____

**INSTRUCTIONS FOR COMPLETING
NOTICE OF TERMINATION
FOR CONSTRUCTION ACTIVITY**

Who May File

Dischargers who are presently covered under NPDES General Permit No. CAS000002 for discharge of storm water associated with construction activity may submit a Notice of Termination when they meet one of the following criteria.

1. The construction project has been completed and the following conditions have been met: all elements of the Stormwater Pollution Prevention Plan have been completed; construction materials and equipment maintenance waste have been disposed of properly; the site is in compliance with all local storm water management requirements including erosion/sediment control requirements and the appropriate use permits have been obtained; and a post-construction storm water operation and management plan is in place.
2. Construction activities have been suspended, either temporarily or indefinitely and the following conditions have been: all elements of the Stormwater Pollution Prevention Plan have been completed; construction materials and equipment maintenance waste have been disposed of properly; all denuded areas and other areas of potential erosion are stabilized; an operation and maintenance plan for erosion and sediment control is in place; and the site is in compliance with all local storm water management requirements including erosion/sediment control requirements.
The date construction activities were suspended, and the expected date construction activities will start up again should be provided.
3. Construction site can not discharge storm water to waters of the United States. Please indicate if all storm water is retained on site or if storm water is collected offsite.
4. Discharge of construction storm water from the site is now subject to another NPDES general permit or an individual NPDES permit. The general permit or individual permit NPDES number and date coverage began should be provided.
5. There is a new owner of the identified site. If ownership or operation of the facility has been transferred then the previous owner must submit a Notice of Termination and the new owner must submit a Notice of Intent for coverage under the general permit. The date of transfer and information on the new owner should be provided. Note that the previous owner may be liable for discharge from the site until the new owner files a Notice of Intent for coverage under the general permit.

Where to File

Submit the Notice of Termination to the Executive Officer of the Regional Water Quality Control Board responsible for the area in which the facility is located. See attached. Submittal of a NOT does not guarantee termination and outstanding invoices are still valid. If the Executive Officer, or his designated staff, agrees with the basis of termination, the Notice of Termination will be transmitted to the State Water Board for processing at which time it will be determined if any outstanding invoices are still valid. Approval of your Notice of Termination does not relieve you from paying any applicable outstanding invoices. If the Executive Officer, or his designated staff, does not agree with the basis of termination, the Notice of Termination will be returned. The Regional Water Board may also inspect your site prior to accepting the basis of termination.

LINE-BY-LINE INSTRUCTIONS

All necessary information must be provided on the form. Type or print in the appropriate areas only. Submit additional information, if necessary, on a separate sheet of paper.

SECTION I--WDID NO.

The WDID No. is a number assigned to each discharger covered under the General Permit. If you do not know your WDID No., please call the State Water Board or Regional Water Board and request it prior to submittal of the Notice of Termination.

SECTION II--OWNER

Enter the owner of the construction site's official or legal name (This should correspond with the name on the Notice of Intent submitted for the site), address of the owner, contact person, and contact person's title and telephone number.

SECTION III--CONSTRUCTION SITE INFORMATION

In Part A, enter the name of the developer (or general contractor), address, contact person, and contact person's title and telephone number. The contact person should be the construction site manager completely familiar with the construction site and charged with compliance and oversight of the general permit. This information should correspond with information on the Notice of Intent submitted for the site.

In Part B, enter the address, county, and telephone number (if any) of the construction site. Construction sites that do not have a street address must attach a legal description of the site.

SECTION IV--BASIS OF TERMINATION

Check the category which best defines the basis of your termination request. See the discussion of the criteria in the Who May File section of these instructions. Provide dates and other information requested. Use the space under Explanation of Basis of Termination heading.

SECTION V--EXPLANATION OF BASIS OF TERMINATION

Please explain the basis or reasons why you believe your construction site is not required to comply with the General Permit. To support your explanation, provide a site map and photograph of your site.

SECTION VI--CERTIFICATION

This section must be completed by the owner of the site.

The Notice of Termination must be signed by:

For a Corporation: a responsible corporate officer

For a Partnership or Sole Proprietorship: a general partner or the proprietor, respectively.

For a Municipality, State, or other Non-Federal Public Agency: either a principal executive officer or ranking elected official.

For a Federal Agency: either the chief or senior executive officer of the agency.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARDS

NORTH COAST REGION (1)
 5550 Skylane Blvd, Ste. A
 Santa Rose, CA 95403
 (707) 576-2220 FAX: (707)523-0135
<http://www.waterboards.ca.gov/rwqcb1>

SAN FRANCISCO BAY REGION (2)
 1515 Clay Street, Ste. 1400
 Oakland, CA 94612
 (510) 622-2300 FAX: (510) 622-2640
<http://www.waterboards.ca.gov/rwqcb2>

CENTRAL COAST REGION (3)
 895 Aerovista Place, Ste 101
 San Luis Obispo, CA 93401
 (805) 549-3147 FAX: (805) 543-0397
<http://www.waterboards.ca.gov/rwqcb3>

LOS ANGELES REGION (4)
 320 W. 4th Street, Ste. 200
 Los Angeles, CA 90013
 (213) 576-6600 FAX: (213) 576-6640
<http://www.waterboards.ca.gov/rwqcb4>

LAHONTAN REGION (6 SLT)
 2501 Lake Tahoe Blvd.
 South Lake Tahoe, CA 96150
 (530) 542-5400 FAX: (530) 544-2271
<http://www.waterboards.ca.gov/rwqcb6>

VICTORVILLE OFFICE (6V)
 14440 Civic Drive, Ste. 200
 Victorville, CA 92392-2383
 (760) 241-6583 FAX: (760) 241-7308
<http://www.waterboards.ca.gov/rwqcb6>

CENTRAL VALLEY REGION (5S)
 11020 Sun Center Dr., #200
 Rancho Cordova, CA 95670-6114
 (916) 464-3291 FAX: (916) 464-4645
<http://www.waterboards.ca.gov/rwqcb5>

FRESNO BRANCH OFFICE (5F)
 685 E St.
 Fresno, CA 93706
 (559) 445-5116 FAX: (559) 445-5910
<http://www.waterboards.ca.gov/rwqcb5>

REDDING BRANCH OFFICE (5R)
 415 Knollcrest Drive, Ste. 100
 Redding, CA 96002
 (530) 224-4845 FAX: (530) 224-4857
<http://www.waterboards.ca.gov/rwqcb5>

COLORADO RIVER BASIN REGION (7)
 73-720 Fred Waring Dr., Ste. 100
 Palm Desert, CA 92260
 (760) 346-7491 FAX: (760) 341-6820
<http://www.waterboards.ca.gov/rwqcb7>

SANTA ANA REGION (8)
 California Tower
 3737 Main Street, Ste. 500
 Riverside, CA 92501-3339
<http://www.waterboards.ca.gov/rwqcb8>

SAN DIEGO REGION (9)
 9174 Sky Park Court, Ste. 100
 San Diego, CA 92123-4340
 (858) 467-2952 FAX: (858) 571-6972
<http://www.waterboards.ca.gov/rwqcb9>



STATE OF CALIFORNIA
 Arnold Schwarzenegger, Governor

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
 Terry Tamminen, Secretary

STATE WATER RESOURCES CONTROL BOARD
 Arthur Baggett Jr., Chairman

Attachment Q

BMPs Selected for the Project
BMPs used are listed in Attachment B, G, I and O.

Attachment R

Sampling Activity Log

HAS BEEN OMITTED FROM THIS REPORT

PLEASE REFER TO SECTION 600.5.1

Attachment S

Pollutant Testing Guidance Table

HAS BEEN OMITTED FROM THIS REPORT
PLEASE REFER TO SECTION 600.5.1

Exhibit 1

Construction Schedule

Can be supplied by Contractor upon request.

Exhibit 2

Soils Report

Cover sheet attached for reference only.
Owner will provide full report upon request

**GEOTECHNICAL EVALUATION
MOJAVE SOLAR PROJECT
LOCKHART, CALIFORNIA**

PREPARED FOR:

Mojave Solar, LLC
13911 Park Avenue, Suite 206
Victorville, California 92392

PREPARED BY:

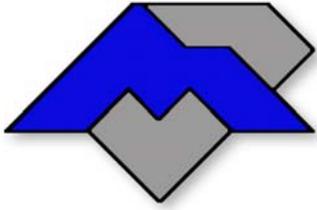
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
5710 Ruffin Road
San Diego, California 92123

May 15, 2009
Project No. 105879004

Exhibit 3

Hydrology Report

Cover sheet attached for reference only.
Owner will provide full report upon request



Merrell-Johnson Engineering, Inc.

CIVIL ENGINEERING ♦ SURVEYING

HYDROLOGY STUDY

For

MOJAVE SOLAR PROJECT HARPER DRY LAKE, CA

Prepared For:

MOJAVE SOLAR LLC Victorville, CA July, 2009

Prepared by:

Merrell-Johnson Engineering, Inc.

12138 Industrial Blvd., Suite 240
Victorville, CA 92395
(760) 241-6146

Job No. 3001

Brad S. Merrell
Principal Engineer
R.C.E. 49423 Exp. 09/30/10

Mark D. Rowan
Project Manager

Exhibit 4

Change of Information (COI) Form

For the General Construction Permit No. CAS000002

**NEW OWNER INFORMATION AND
CHANGE OF INFORMATION (COI) FORM FOR THE
GENERAL CONSTRUCTION PERMIT NO. CAS000002**

Owners Name: _____ Date: _____
 WDID No.: _____ Date of Last NOI Change: _____
 Prepared By: _____ Signature of Preparer: _____

	Area Transferred (acres) ¹ column 1	Area Remaining (acres) ² column 2	Lot/Tract Numbers Transferred	Contact Person and Company Name of NewOwner(s)	Address(es) of the New Owner(s)	Phone # of New Owner	Is Const/Post Construction Complete? Yes/No	Date of Ownership Transfer
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

¹Use approximate area (in acres) if no exact figure is available.
²Calculate running total in this column as follows:
 Enter in column 2, line 1, the area from NOI minus the area in column 1.
 Enter in column 2, line 2, the area in column 2, line 1, minus the area in line 2, column 1.
 Enter in column 2, line 3, the area in column 2, line 2, minus the area in line 3, column 1, and so forth.

END OF REPORT