

Storm Water Pollution Prevention Plan

For:

**Ocotillo Wind Energy Facility
(Ocotillo Express Wind Farm)**

LRP:

Contractor:

Project Site Location/Address:

North and South of Imperial Highway S2
Ocotillo, California

Qualified SWPPP Practitioner:

Qualified SWPPP Developer:

SWPPP Preparation Date: April 6, 2012

Estimated Project Dates:

Start of Construction: May 2, 2012

Completion of Construction: December 21, 2013

WDID No.: 7 13C363445

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Section 1

SWPPP Certifications and Approval

1.1 SWPPP Certification by Preparer

Project Name: Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm)

WDID Number: 7 13C363445

“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 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.”

QSD's Signature

Date

Name and Title

Telephone Number

Reviewer's Signature

Date

Name and Title

Telephone Number

1.2 LRP Approval and Certification of SWPPP

**Legally Responsible Person (LRP)
Approval and Certification of the
Storm Water Pollution Prevention Plan**

Project Name: Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm)

WDID Number: 7 13C363445

“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 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.”

LRP Signature

Date

Name and Title

Telephone Number

1.3 Annual Compliance Certification

By September 1 of each year, the Legally Responsible Person (LRP) shall prepare and electronically submit an annual report to the State Water Resources Control Board using the Storm Water Multiple Application and Report Tracking System (SMARTS) database, which can be found at <https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp>. The Special Provisions shall be certified by the LRP each year. A copy of the report will be maintained with the on-site SWPPP in Attachment N. The LRP shall include storm water monitoring information in the annual report consisting of the following information, as stated in Order No. 2009-0009-DWQ:

1. A summary and evaluation of all sampling and analysis results, including copies of laboratory reports;
2. The analytical method(s), method reporting units(s), and method detection limit(s) of each analytical parameter (analytical results that are less than the method detection limit shall be reported as “less than the method detection limit”);
3. A summary of all corrective actions taken during the compliance year;
4. Identification of any compliance activities or corrective actions that were not implemented;
5. A summary of all violations of the General Permit;
6. The names of individual(s) who performed the facility inspections, sampling, visual observation (inspections), and/or measurements;
7. The date, place, time of facility inspections, sampling, visual observation (inspections), and/or measurements, including precipitation (rain gauge); and
8. The visual observation and sample collection exception records and reports specified in Attachment D of the General Permit.

Section 2

SWPPP Amendments

2.1 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 Colorado River Regional Water Resources Control Board (7) (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 LRP and QSD.

The following items will be included in each amendment:

- Who requested the amendment.
- The location of proposed change.
- The reason for change.
- The original Best Management Practices (BMP) proposed, if any.
- The new BMP proposed.

The amendments for this SWPPP, along with the LRP's Certification and the LRP's approval, can be found in the following pages. Amendments are listed in the Amendment Log in Section 2.2.

SWPPP Amendment No.

Project Name: Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm)

WDID Number: 7 13C363445

**QSD 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 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.”

QSD’s Signature

Date

Name and Title

Telephone Number

**LRP 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 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.”

LRP’s Signature

Date

Name and Title

Telephone Number

2.2 Amendment Log

Project Name: Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm)

WDID Number: 7 13C363445

Amendments to the SWPPP can be found below. Amendments prepared and approved according to Section 2.1 will be recorded in the Amendment Log. The Amendment Log will be kept in the on-site SWPPP.

Section 3

Introduction and Project Description

3.1 Introduction and Project Description

The Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm) borders Imperial Highway S2 in Ocotillo, California on both federal and private lands. The total disturbance of the project is approximately 573 acres and total project boundary encompasses 12,800 acres. The project consists of the construction of 137 Wind Turbine Generators, a substation and switchyard. The project drainage flows to the east and ultimately drains into the Palm Canyon Wash, Myer Creek Wash, Shell Canyon Wash and Coyote Wash.

3.2 Unique Site Features

There are no unique site features known at time of SWPPP preparation.

3.3 Construction Site Estimates

The following are estimates of the construction site:

Total site area:	12,800 acres
Disturbed site area:	573.0 acres
Percentage impervious area before construction:	1.30%
Runoff coefficient before construction ⁽¹⁾ :	0.26
Percentage impervious area after construction:	2.19 %
Runoff coefficient after construction ⁽¹⁾ :	0.26
Anticipated storm water flow on to the construction site:	12,300 cfs
Estimated potential soil loss ⁽²⁾ :	13.21 tons/acre

⁽¹⁾ Calculations are shown in Attachment D

⁽²⁾ Calculations are shown in Attachment H

3.4 Projection Schedule/Water Pollution Control Schedule*

Activity	Time Frame
Rainy Season	October to April
Store temporary erosion and sediment control materials	May 2012
Installation of erosion and sediment controls, stabilized entrance / exit, and non-storm water controls.	May 2012
Estimated construction start	May 2012
Construction of staging area	May 2012
Begin road grading operations and dust control	May 2012
Begin utility operations (underground):	TBD
Begin utility operations (overhead):	TBD
Begin operation and maintenance building activity:	TBD
Installation of rainy season erosion and sediment controls, and non-storm water controls. Store temporary erosion and sediment control materials	October/December 2012 October/December 2013
Preparation of rainy season BMP implementation schedule (developed by QSP)	October/December 2012 October/December 2013
All construction complete	December 2013
Implement final erosion control of completed areas	December 2013
File NOT	December 2013/January 2014

*A more detailed implementation schedule shall be attached at the end of this Section (3) by the contractor.

3.5 Contact Information/List of Responsible Parties

Contact information for the Qualified SWPPP Practitioner (QSP) and delegated inspection personnel is below:

Qualified SWPPP Practitioner Name: _____ Phone: _____

Delegated SWPPP Inspector Name: _____ Phone: _____

Alternate SWPPP Inspector Name: _____ Phone: _____

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

- Ensuring full compliance with the SWPPP and the General 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.

- Routine weekly inspections
- Quarterly non-storm water inspections
- Storm event inspections
- Updates/Amendments to the SWPPP, as needed, which will be signed and approved by the Qualified SWPPP Developer (QSD) and the LRP
- Preparation of annual report
- Ensuring elimination of all unauthorized discharges
- The QSP shall be assigned authority by the Contractor to mobilized 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

3.6 Risk Level Determination

Risk level calculations for Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm) conclude the project to be of Risk Level 1 with a potential, utilizing the GIS Mapping Method. Supporting documents can be found in Attachment H.

3.7 Effluent Standards

As a Risk Level 1 project, the permit coverage requires that all storm water discharges and authorized non-storm water discharges shall not contain hazardous materials of a reportable quantity. Controls, structures and BMPs will be used to minimize or prevent pollutants in storm water discharges.

This project is not subject to Numeric Action Levels (NALs).

3.8 Receiving Water Limitations

Drainage from the project generally flows to the east and directly discharges into Palm Canyon Wash, Upper Coyote Wash, South Fork Coyote Wash, Middle Coyote Wash, and Jojoba Wash. All of the washes ultimately drain into the Coyote Wash, which is not listed for water quality impairment on the most recent 303(d) or for designated beneficial uses.

Any discharges from the project will not adversely affect human health or the environment. Nor will they cause a public nuisance or contain pollutants in quantities that threaten to cause pollution. The project will comply with local and regional water quality objectives to ensure water quality standards.

Palm Canyon Wash, Myer Creek Wash, Shell Canyon Wash and Coyote Wash are covered under a 401 permit with 5.77 acres of the proposed waters of the United States to

be temporarily impacted by a discharge other than dredging. Permanent area of impact of the proposed waters of the United States is approximately 0.86 acres. The 401 permit indicates 10,750 cubic yards of dredged material to be discharged in waters of the United States. A 404 permit has also been applied for with this project. Any BMPs installed will be in compliance with both the 401 and 404 permit as well as the general construction permit.

3.9 Training

Section 3.5 shows the name of the Qualified SWPPP Practitioner (QSP). Training documentation for the QSP and any delegated SWPPP personnel can be found in Attachment J. **(QSP shall insert training documentation)** All personnel associated with implementation of the SWPPP shall be appropriately trained.

This SWPPP was prepared by Westwood Professional Services, Inc under supervision of Aaron Mlynek, CPESC (#3344), QSD (# 01306) and Chris Carda, PE a registered civil engineer in California (License # 75322). Qualifications can be found in Attachment J.

Section 4

Body of SWPPP

4.1 Objectives

This Storm Water Pollution Prevention Plan (SWPPP) has five main objectives as stated in Order No. 2009-0009-DWQ:

- All pollutants and their sources, including sources of sediment associated with construction, construction site erosion and all other activities associated with construction activity are controlled;
- Where not otherwise required to be under a Regional Water Board permit, all non-storm water discharges are identified and either eliminated, controlled, or treated;
- Site BMPs are effective and result in the reduction or elimination of pollutants in storm water discharges and authorized non-storm water discharges from construction activity to the BAT/BCT standard;
- Calculations and design details as well as BMP controls for site run-on are complete and correct, and;
- Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.

This SWPPP conforms to the required elements of NPDES No. CAS000002 (Permit) 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, ground waters, 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.

4.2 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.

4.3 Pollutant Source Identification and BMP selection

Refer to drawings in Attachment B for standard details and specifications of BMPs from California Storm Water Association Construction Handbook (<http://www.cabmphandbooks.com/Construction.asp>).

4.3.1 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 drawings provided in Attachment B and/or in Sections 4.3.4 through 4.3.9):

- Vehicle fluids, including oil, grease, petroleum, and coolants
- Concrete curing compounds
- Cement materials including underground structures and above ground structures
- General Litter
- Base and sub-base aggregate materials
- Paints
- Solvents and Thinners
- Mortar Mix
- BMP materials
- Treated Lumber
- PCC rubble
- Landscape materials
- Joint and curing compounds
- Soil Stabilizers
- Hydraulic Fluids

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

- Clear and grub operations
- Grading operations
- Soil import operations
- Utility (overhead and underground operations)
- Turbine rinsing
- Landscaping

Turbines will be rinsed only with water, not with a detergent to limit materials that may pollute storm water. NS-1, Water Conservation Practices will be used to minimized run off from rinsing activities. Details may be found for NS-1 in Section 4.3.5 of this SWPPP.

Attachment C lists all Best Management Practices (BMPs) that have been selected for implementation on this project. Implementation and location of BMPs are shown on the drawings in Attachment B. Narrative descriptions of BMPs to be used during the project are listed by category in each of the following SWPPP sections.

4.3.2 Existing (pre-construction) Control Measures

There are no pre-construction control measures anticipated at the time of SWPPP preparation.

4.3.3 Nature of Fill Material and Existing Data Describing the Soil

The existing site overlies unconsolidated alluvial sediments consisting primarily of silts and sands that contain gravels to boulders (Preliminary Geotech Report, March 2012). There are no 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 on the construction site).

4.3.4 Good Site Management “Housekeeping”

Good site management measures will be implemented throughout the duration of construction to comply with the elements of the General Permit.

Construction Materials

An inventory of construction activities and materials are provided in Section 4.3.1. The BMP Consideration Checklist in Attachment C and the following list indicates the BMPs that have been selected to control storm water pollution on the construction site. Implementation and locations of storm water control BMPs are shown on the civil drawings in Attachment B. A narrative description of each BMP follows.

- WM-1 Material delivery and storage
- WM-2 Material use
- WM-3 Stockpile management

WM-1, Material delivery and storage

- Materials will be stored in a water tight secondary containment protected from rain.
- Materials will be stored with sufficient separation to allow for spill cleanup and emergency response access.
- Incompatible materials shall not be stored together.
- Materials shall be stored in their original containers with labels kept legible. Illegible labels shall be replaced.
- Bagged and boxed materials shall be stored on pallets and not be allowed to accumulate on the ground, and will be covered with plastic to be protected from rain and wind during the rainy season, or if not frequently used.
- Material inventory stored on-site will be minimized.

WM-2, Material use

- Less hazardous, alternative materials will be utilized as often as possible.
- Use of hazardous materials on-site will be minimized and stored in watertight storage containers or in a storage shed.

- Manufacturers' directions will be followed for the uses of materials.
- Employees shall be trained in proper material usage.

WM-3, Stockpile management

- Bagged materials shall be placed on pallets and covered.
- Stockpiles shall be placed away from drainage courses, concentrated flows of storm water, and inlets.
- Stockpiles shall be covered and bermed prior to the onset of precipitation or wind.

Tracking Control

The following BMPs will be used to reduce sediment tracking from the construction site onto private or public paved roads:

- TC-1 Stabilized construction entrance
- TC-2 Stabilized construction roadway
- SE-7 Street Sweeping and Vacuuming

TC-1, Stabilized construction entrance

- A stabilized construction entrance will be installed where pavement ends to minimize tracking.
- Gravel/rock of ± 2 inches placed to a depth of 12 inches shall be used for stabilized entrance. Specific dimension will vary per location.
- Gravel/rock will be cleaned and maintained as needed.

TC-2, Stabilized construction roadway

- A stabilized construction roadway will be used for access and hauling
- Use of WE-1 may be used to minimize wind erosion
- Minimize traffic speed to prevent excess dust generation along roads

SE-7, Street Sweeping and Vacuuming

- Sweep paved surfaces at points of egress, daily as necessary, to retrieve sediment tracked by vehicles
- Scraping may be needed prior to sweeping
- Do not use a "flick" or kick broom / sweeper attachment as dust is frequently a problem during sweeping activity
- Properly dispose of accumulated sediment from sweeping activities

Waste Management and Materials Pollution Control

An inventory of construction activities, materials, and wastes is provided in Section 4.3.1. 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-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

WM-4, Spill prevention and control

- Spills shall not be buried or washed with water.
- Proper storage, clean-up and spill reporting instructions for hazardous materials stored or used on the project site shall be posted at all times in an open, conspicuous and accessible location.
- Used cleanup materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose shall be stored and disposed of properly.
- Appropriate spill response personnel will be assigned to the project.
 - Name:
 - Company:
 - Phone:

WM-5, Solid waste management

- The production of solid waste materials will be minimized when possible.
- Littering shall be prohibited by employees, subcontractors, and visitors.
- Litter and debris shall be disposed of properly.
- Solid waste containers shall be covered at the end of every business day and prior to the onset of precipitation.
- Containers shall not be located within drainage channels.

WM-6, Hazardous Waste Management

- The production of hazardous waste materials will be minimized when possible.
- Train contractors in handling, storage and transport of hazardous waste.
- Storage of all materials shall be in original, labeled containers.

WM-7, Contaminated Soil Management

- Contaminated soils will be handled by appropriately trained personal and disposed of in accordance with applicable laws, ordinances, regulations and standards
- Should spills or leaks occur the incident should be reported immediately to the QSP and project manager so the material can be contained, cleaned up and properly documented/reported to appropriate agencies.
- Contaminated soils will be disposed of offsite by a licensed hazardous waste hauler.

WM-8, Concrete waste management

- Concrete trucks shall washout in designated washout pits.
- Concrete shall not be washed out on ground.
- Broken concrete piles shall be disposed of properly.
- Roll away washout pits or pits created with 8-mil plastic and a sand bag berm may be utilized.
- Washout pits shall be covered prior to the onset of precipitation.

WM-9, Sanitary/Septic waste management

- Temporary sanitary facilities shall be stored away from drainage channels, inlets, and from traffic circulation.
- Wastewater shall not be disposed of on-site, and shall be disposed of properly.
- Sanitary/septic facilities shall be maintained in good working order.
- Facilities shall be contained in appropriate secondary containment to prevent leaks or spills from maintenance.

WM-10, Liquid Waste Management

- Train and instruct contractors to control liquid wastes such as concrete washout, bentonite and other waste liquids.
- Contain bentonite slurry from directional boring and cleanup and remove material from the site for proper disposal.
- See WM-6 for disposal of wastes.

Stockpiles of soil and fill material shall be located within sediment barriers as described in Construction Material BMPs.

Contractors and subcontractors are to prevent spills from occurring by following WM-4; should spills or leaks occur the incident should be reported immediately to the QSP and project manager so the material can be contained, cleaned up and properly documented.

Solid wastes shall be disposed of properly by designating a waste collection area and BMP such as dumpsters. The dumpsters shall be used throughout the site and located away from drainage areas and have adequate cover and containment. Dumpsters will be covered at the end of every business day and during storm events.

Well maintained temporary sanitary facilities shall be provided for use by all personnel during working hours. Maintenance of the facilities shall be arranged with a septic waste service provider inspected regularly for leaks or spills. Temporary sanitary facilities shall be located away from drainage ways and stormwater conveyances, in appropriate secondary containment.

Contaminated soils are not believed to be present within the site area; should contaminated soils be discovered WM-7 will be used to manage the contaminated soil.

Vehicle Storage and Maintenance

Implementation and locations of vehicle storage and maintenance controls are shown on the civil drawings in Attachment B. A narrative description of each BMP follows.

- NS-8 Vehicle and equipment cleaning
- NS-9 Vehicle and equipment fueling
- NS-10 Vehicle and equipment maintenance

NS-8, Vehicle and Equipment Cleaning

- Vehicle and equipment cleaning will be performed off-site
- If cleaning must occur on site
 - The area must be contained and designated specifically for cleaning of vehicles and equipment
 - Follow WM-6 and WM-10 for resulting waste waters and materials from vehicle cleaning
 - On-site cleaning should be in a contained area with a berm and appropriate BMPs to prevent discharge of water to surface waters / waters of the U.S.

NS-9, Vehicle and equipment fueling

- On-road vehicle fueling will occur off-site.
- If impractical to send equipment off-site
 - Fueling will only take place in designated areas.
 - Leaks and spills will be cleaned up daily.
 - Drip pans or absorbent pads shall be used during fueling.
 - All refueling locations will be located at least 100 feet from downstream drainage facilities and water courses.

NS-10, Vehicle and equipment maintenance

- Vehicle and equipment maintenance will occur off-site
- If on-site maintenance is necessary
 - Drip pans or absorbent pads shall be used during maintenance work that involves fluids.
 - Dedicated maintenance areas will be located 100 feet from downstream drainage facilities and water courses.
 - Used oils, fluids, lubricants, and spill cleanup material will be disposed of properly.
 - Oil and chemicals will be stored in secondary containment.

Landscape Materials

Landscape materials will be managed using the same methods as Construction Materials. The project shall be revegetated per the Temporary Disturbed Area Restoration Plan if one is prepared for the project. Details for the BMPs can be found in the Construction Materials subsection.

4.3.5 Non-Storm Water Management

An inventory of construction activities and potential non-storm water pollutants are provided in Section 4.3.1. 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 non-storm water control BMPs are shown on the drawings in Attachment B. A narrative description of each BMP follows.

- NS-1 Water Conservation Practices
- NS-3 Paving and Grinding Operations
- NS-4 Temporary Stream Crossing

- NS-6 Illicit Connection / Illegal Discharge Detection and Reporting
- NS-12 Concrete Curing
- NS-13 Concrete Finishing

NS-1, Water Conservation Practices

- Use of water for dust or other uses shall be conserved.
- Maintain all equipment and vehicles to prevent leaks
- Observe application for any runoff and implement appropriate erosion and sediment controls to prevent sediment discharge off site.

NS-3, Paving and Grinding Operations

- Limit paving operations, saw-cutting or resurfacing during and immediately prior to rainfall
- Avoid paving during wet season as feasible
- Incorporate WM-1 for storage of materials
- Follow WM-3 for stockpile material management
- Protect stormwater drains / culverts during cutting, grinding and pavement removal

NS-4, Temporary Stream Crossing

- Construct temporary crossing prior to any soil disturbing / access of stream areas
- Work will be performed while ephemeral streams are dry
- Approval from the RWQCB may be necessary
- Any work within streams will comply with Section 401/404 requirements

NS-6, Illicit Connection / Illegal Discharge Detection and Reporting

- Contractor shall review SWPPP prior to construction
- QSP shall inspect site for presence of illegal discharges or existing contamination / dumping prior to construction starting.
- Observe perimeters of project for any potential illegal discharges or dumping which may enter the site area.

NS-12, Concrete Curing

- Use proper storage and handling of material on site.
- Avoid over spraying of material
- Avoid drift of material by applying close to concrete surface

NS-13, Concrete Finishing

- Use proper storage and handling of material on site.
- Avoid over spraying of material
- Avoid drift of material by applying close to concrete surface
- Refer to WM-6 and WM-8

4.3.6 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 elected by the Contractor, QSP, QSD, or LRP. 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 Storm Water 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) Apply seed to areas deemed substantially complete by the Owner during the defined rainy season.
- 7) 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 requirement 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 drawings 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
- EC-10 Velocity Dissipation Devices
- EC-12 Streambank Stabilization

EC-1, Scheduling

- Major grading operations are scheduled to occur during non-rainy periods.
- Erosion and sediment control practices are conducted year-round.
- Soil exposure shall be limited and staged as appropriate.
- Schedule road grading and hauling during dry periods.
- Implement temporary cover erosion practices prior to the rainy season.

EC-2, Preservation of Existing Vegetation

- Existing vegetation shall be preserved to the maximum extent practicable.
- Minimize contractor access through communications to preserve existing vegetation outside of the road grading and staging areas.

EC-5, Soil Binders

- Soil binders may be applied to any areas that will remain disturbed for more than two weeks.
- Soil binders shall be reapplied as needed.
- Apply soil binders for temporary wind erosion protection
- Apply soil binders on access roads for wind erosion protection and erosion control
- Use of soil binder material shall be selected by the contractor/QSP for particular applications and shall meet CASQA standards and specifications and shall be approved by BLM.

EC-10, Velocity Dissipation Devices

- Riprap (rock) is typically used as energy dissipation; wire tided rock baskets or grouted riprap may be used and minimize maintenance
- Stone of 4" to 6" can be placed using equipment; rock of 8" to 12" must be hand placed. Rock should not be placed / dumped from a height exceeding 16" onto fabric.
- Fabric will be used under the rock to prevent scour of soils
- Use energy dissipation for temporary and permanent outlets

EC-12, Streambank Stabilization

- Work in or near ephemeral streams should be performed during the dry season
- Fiber rolls, check dams, gravel bag berms or sandbag barriers may be used when working near the streams to keep sediment out of the channel. Refer to SE-4, SE-5, SE-6 and SE-8 for specific details
- Disturbance should be limited and staging areas should be located at least 50 feet from stream channel
- If using velocity dissipation devices they should be installed per EC-10
- Stabilization of the channel with riprap, rock or other method as designed by the engineer or specified by the site inspector as necessary

Erosion control BMPs will be implemented as needed to minimize or prevent soil movement from water forces from the disturbed limits of the project. BMPs will be applied following progress of grading operations. Locations of erosion control BMPs may change as the project progresses and disturbed areas are expanded. Additional erosion control measures may be implemented as needed before, during and after storm events. Changes shall be reflected on the drawings in Attachment B.

4.3.7 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, QSP, QSD, or LRP. Biodegradable and natural fiber

materials will be used where such materials are commercially available and cost competitive.

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 requirement for active areas and non-active areas before the onset of rain.

Implementation and locations of temporary sediment control BMPs are shown on the drawings 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-4 Check Dams
- SE-5 Fiber Rolls
- SE-6 Gravel Bag Berms
- SE-8 Sandbag Barrier

SE-4, Check Dams

- Check dams will generally be constructed as a pyramid of rock material in secession (three checks spaced every 100 feet) at the down gradient perimeter in concentrated flow. Specific dimension will vary per location.
- Check dams shall be installed and maintained according to CASQA specifications.

SE-5, Fiber Rolls

- Fiber Rolls may be used around temporary stockpiles for perimeter control.
- Fiber rolls may be used as perimeter control for short duration exposed / active areas in place of silt fence.
- Fiber rolls shall be installed and maintained according to CASQA specifications.

SE-6, Gravel Bag Berm

- Could be used in place of silt fence or fiber roll perimeter control
- Bags could also be used a check dam for road slopes and concentrated flows with less than 5 acres of drainage
- Locate bags on contours in 50 foot intervals to increase effectiveness.
- Stack bags in a pyramid; fill material should be 0.5 – 1 inch class 2 aggregate
- Bags may only last 2 – 3 months due to sunlight degrading the material

SE-8, Sandbag Barrier

- Can be used in conjunction with or in place of SE-6 or where silt fence would be used as a perimeter control
- Could be used for perimeter control of temporary stockpiles
- Sandbags could be used to divert runoff or run-on water
- Remove and cleanup sandbags which rupture
- Locate bags on contour; space bags at 50 foot intervals to increase effectiveness

- Stack sandbags at least 3 high in a pyramid; abut ends tightly together
- Fill bags with Class 1 or Class 2 permeable material free from clay material

4.3.8 Wind Erosion Control

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

- WE-1 Wind erosion control
- EC-5 Soil Binders

WE-1, Wind erosion control

- Water will be applied to disturbed soil areas of the project to control dust and maintain moisture levels for compaction.
- Water will be applied by water trucks as needed. Water application rates will be concentrated during the summer and fall months.
- Water conservation practices will be used in conjunction with dust control measures to prevent discharges associated with dust control applications.
- Plastic covers shall be used to prevent dispersal of sediment from stockpiles as necessary.

EC-5, Soil Binders

- Soil binders may be applied to any areas that will remain disturbed for more than two weeks.
- Soil binders shall be reapplied as needed.
- Apply soil binders for temporary wind erosion protection
- Apply soil binders on access roads for wind erosion protection and erosion control
- Use of soil binder material shall be selected by the contractor/QSP for particular applications and shall meet CASQA standards and specifications and shall be approved by the BLM.

Application of water shall be used to minimize dust generation from wind erosion forces. During windy conditions (forecasted and / or actual conditions of 25 mph or greater) wind erosion control shall be applied at intervals sufficient enough to adequately control wind erosion. Additionally, vehicle traffic speed limits should be kept low to minimize dust generation; application of dust palliatives to haul roads or access roads shall be implemented at intervals sufficient enough to minimize dust generation from vehicle traffic.

4.3.9 Run-on and Runoff Controls

The following BMPs have been selected to control run-on and runoff from the construction

- SE-6 Gravel Bag Berms

SE-6, Gravel Bag Berm

- May be used in place of silt fence or fiber roll perimeter control
- Bags could also be used a check dam for road slopes and concentrated flows with less than 5 acres of drainage
- Locate bags on contours in 50 foot intervals to increase effectiveness.

- Stack bags in a pyramid; fill material should be 0.5 – 1 inch class 2 aggregate
- Bags may only last 2 – 3 months due to sunlight degrading the material

Run-on from off site will be either directed away from disturbed areas or will be collectively in compliance with the effluent limitations.

4.4 Erosion and Sediment Control Drawings

The erosion and sediment control drawings can be found in Attachment B of the SWPPP. The drawings will be continuously updated throughout duration of construction to reflect current site conditions by the QSP or the delegated site inspector.

4.5 Construction BMP Inspection, Maintenance, and Repair

Inspections will be conducted as follows during normal business / operating hours:

- On weekly routine basis
- Quarterly for non-storm water observations
- Within 48 hours (two business days) prior to a forecast storm of 50% chance of rain or more
- Within 48 hours (two business days) after a qualifying storm event
- Every 24 hours during extended rain events
- During a discharge of stored or contained storm water from a qualifying event producing 1/2" or more of precipitation at time of discharge, and prior to discharge (during operating hours) if planned for after operating hours

Completed inspection checklists will be kept with the SWPPP and available on site at all times.

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

During an inspection, the QSP or delegated inspector must identify BMP effectiveness and implement repairs or design changes as soon as field conditions allow safe access. Equipment, materials and workers must be available for rapid response to failures and emergencies. Each inspection should also include:

- Inspection date
- Weather information with estimate of beginning of storm event, duration of event, time elapsed since last storm and approximate total rainfall amounts
- Description of inadequate BMPs
- If safe access during storm events is possible observations of all BMPs or following a storm event a visual inspection at the relevant outfall, discharge point or downstream location and required maintenance activities is needed.
- Rain gauge reading
- Corrective actions required including any changes to the SWPPP and implementation dates for such actions
- Inspectors name, title and signature.

4.6 Post-Construction Storm Water Management

4.6.1 Post-Construction Control Practices

Post construction control practices include stabilization of disturbed areas to 70% vegetated cover from preconstruction native background vegetated condition for areas which are not utilized as access roads or permanent parking / building uses, as required in Order No. 2009-0009-DWQ to file a Notice of Termination. The site shall be considered stabilized once all soil disturbing activities are completed and either of the two following criteria is met:

1. Re-establishment of pre-disturbance vegetative cover, OR
2. Equivalent stabilization measures have been employed such as blankets, soil cement, fiber matrices, geotextiles or other erosion resistant soil coverings or treatment.

Disturbed areas shall be re-vegetated to 70% of preconstruction cover; an approved seed mixed may be used as needed.

4.6.2 Operation/Maintenance after Project Completion

Post construction BMPs above will be funded and maintained by the property owner. Annual monitoring will be performed for 3 years, and bi-annual after 3 years, between March 15th and April 15th.

4.7 Rain Event Action Plan

A Rain Event Action Plan (REAP) is not required for this project.

4.8 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 / subcontractors will be maintained and included in the SWPPP in Attachment K.** 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 K.

4.9 Other Plans/Permits

Other plans and permits can be found in Attachment O (as applicable).

Section 5

Construction Site Monitoring Program (CSMP)

5.1 Visual Monitoring (Inspection)

The QSP will routinely inspect the site on a weekly basis for site compliance and will only conduct visual observations during business hours. Any corrective actions will begin within 72 hours after the inspection and completed as soon as possible with follow up inspections performed as needed. Inspections will not be performed outside of site business hours or during dangerous weather conditions.

The QSP will inspect the site within 48 hours prior to a forecasted storm event with a 50 % chance of rain, within 48 hours after a rain event that produces 0.5 inch or more of rainfall, and at 24-hour intervals during extended rain events. The results of all inspections and assessments will be documented and maintained in the on site SWPPP. Site inspections conducted for monitoring purposes will be performed using the inspection checklist included in Attachment I.

The name and contact number of the QSP and delegated SWPPP inspector is listed below:

Qualified SWPPP Practitioner Name: _____ Phone: _____

Delegated SWPPP Inspector Name: _____ Phone: _____

Alternate SWPPP Inspector Name: _____ Phone: _____

5.2 Storm Water Discharge Water Quality Sampling Locations

Discharge points will be visually monitored for potential pollutants and background samples will be taken, if found. Run-on will be monitored and reported if there is potential the run-on may contain pollutants and background samples will be taken. Sampling will be performed using the Sampling Procedures in Section 5.4.

5.3 Non-Storm Water Discharge Monitoring

Analytical Constituents

Identification of Non-Visible Pollutants

The following is a list of possible non-visible pollutants. The table in Attachment R provides the constituents associated with each non-visible pollutant.

- Vehicle fluids, including oil, grease, petroleum, and coolants
- Concrete curing compounds
- Cement materials including underground structures and above ground structures
- General Litter

- Base and sub-base aggregate materials
- Paints
- Solvents and Thinners
- Mortar Mix
- BMP materials
- Treated Lumber
- PCC rubble
- Landscape materials
- Joint and curing compounds
- Soil Stabilizers
- Hydraulic Fluids

Sample Analysis

Samples shall be analyzed for applicable constituents based on the possible non-visible pollutants assessed in the pre-storm inspection. The Pollutant Testing Guidance Table is located in Attachment R.

Sampling locations are based on proximity to planned non-visible pollutant storage, occurrence or use; accessibility for sampling, personnel safety; and other factors in accordance with the applicable requirements in the Permit. Planned sampling locations are shown on the drawings in Attachment B at discharge points.

A sampling location has been identified at each drainage area for the collection of an uncontaminated run-on sample as a background sample for comparison with samples being analyzed for non-visible pollutants. These locations were selected such that the sample will not have come in contact with operational or storage areas associated with the materials, wastes, and activities identified in Section 4.3 or areas of disturbed soil / construction activity.

If an operation activity or storm water inspection conducted 24 hours prior to or during a rain event identifies the presence of a material storage, waste storage, or operations area with spills or the potential for the discharge of non-visible pollutants to surface waters or a storm sewer system that was an unplanned location and has not been identified on the drawings, sampling locations will be selected using the same rationale as that used to identify planned locations.

5.4 Sample Collection and Handling

Sample Collection Procedures

Grab samples will be collected and preserved in accordance with the methods identified below. Only personnel trained in proper water quality sampling will collect samples.

Sampling will be collected by placing a separate lab-provided sample container directly into a stream of water down gradient and within close proximity to the discharge location. This separate lab-provided sample container will be used to collect water, which will be field tested with calibrated portable equipment. The up gradient and uncontaminated background samples shall be collected first, prior to collecting the down gradient to

minimize cross-contamination. The sampling personnel will collect the water up gradient of where they are standing. Once the separate lab-provided sample container is filled, the water sample will immediately tested for pH and turbidity. Samples will not be collected outside of site business hours or during dangerous weather conditions.

If sample analysis is to be performed by a testing laboratory, sample bottles provided by the laboratory for analysis. Samples collected as stated above and then transferred into the provided bottles.

To maintain sample integrity and prevent cross-contamination, sampling collection personnel will:

- Wear a clean pair of surgical gloves prior to the collection and handling of each sample at each location.
- Not contaminate the inside of the sample bottle by not allowing it to come into contact with any material other than the water sample.
- Discard sample bottles or sample lids that have been dropped onto the ground prior to sample collection.
- Not leave the cooler lid open for extended periods of time once samples are placed inside.
- Not sample near a running vehicle where exhaust fumes may impact the sample.
- Not touch the exposed end of a sampling tube, if applicable.
- Avoid allowing rainwater to drip from rain gear or other surfaces into sample bottles.
- Not eat, smoke, or drink during sample collection.
- Not sneeze or cough in the direction of an open sample bottle.
- Minimize the exposure of the samples to direct sunlight, as sunlight may cause biochemical transformation of the sample to take place.
- Decontaminate sampling equipment prior to sample collection using a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.
- Dispose of decontamination water/soaps appropriately; i.e., not discharge to the storm drain system or receiving water.

Sample Handling Procedures

Immediately following collection, sample bottles for laboratory analytical testing (per 40 CFR Part 136) will be capped, labeled, documented on a Chain of Custody (COC) form provided by the analytical laboratory, sealed in a re-sealable plastic storage bag, placed in an ice-chilled cooler, at as near to 4 degrees Celsius as practicable, and delivered within 24 hours to the following California state-certified laboratory:

Lab Name:	<u>ATS Analytical Laboratories</u>
Street address:	<u>104 South 8th Street</u>
City, state, zip:	<u>Brawley, CA 92227</u>
Phone number:	<u>(760) 344-2532</u>

Immediately following collection, samples for field analysis will be tested in accordance with the field instrument manufacturer's instructions and results recorded on the Sampling Activity Log. Instrument(s) will be maintained in accordance with manufacturer's instructions, calibrated before each sampling and analysis event.

Sample Documentation Procedures

Data documented on the sample bottle identification labels, chain of custody forms, sampling activity logs and inspection checklists should be recorded with waterproof ink. Samples will be labeled with the date, time, location, and job name. Duplicate samples will be specified as duplicate sample. Sampling activity logs, which is located in Attachment P, will be filled out during the sampling activity and placed in the SWPPP after the sampling event. In the event of erroneous information recorded, the information shall be redlined and the correct information shall be noted on the same form; the original erroneous information should still be readable. Date and initial any changes or updates on sampling forms, logs and checklists. The contractor or QSP should insert copies of the Chain of Custody forms in Attachment Q from the approved laboratory. Any maintenance and calibration records will be maintained with the SWPPP and sampling records.

Sample Bottle Identification Labels

Sampling personnel will attach an identification label to each sample bottle. The following information will be recorded on the label.

- Project Name
- Project Number
- Sample Identification Number and location [Date of Sample – Location] (example: 03/16/2010 – SA-A).
- Quality assurance / quality control (QA / QC) samples shall be identified similarly using a unique sample number or designation as above.
- Collection date and time
- Analysis constituent

Sampling Activity Logs

Activity logs for sampling events should identify the following items.

- Sampling Date
- Separate times for collected samples and QA / QC samples
- Unique sample identification number and location
- Analysis constituent
- Names of sampling personnel
- Weather conditions
- Precipitation Amount
- Field analysis results
- Other / Notes regarding special circumstances or details

Chain of Custody (COC)Forms

All samples to be analyzed by the listed laboratory in this SWPPP will be accompanied by a COC form provided by the laboratory. Only the sample collectors will sign the COC form over to the lab. COC procedures will be strictly followed for QA /QC assurance.

5.5 Monitoring Methods

Analysis will be performed by the laboratory identified in Section 5.4.

Monitoring Strategy

Sampling Schedule

Samples for the applicable non-visible pollutant(s) and a sufficiently large uncontaminated background sample shall be collected during the first two hours of discharge from rain events that result in a sufficient discharge for sample collection. Samples shall be collected during scheduled business hours and shall be collected regardless of the time of year, status of the construction site, or day of the week.

A minimum of 48 hours of dry weather will be used to distinguish between separate rain events.

Collection of discharge samples for non-visible pollutant monitoring will be triggered when any of the following conditions are observed during the required inspections conducted before or during rain events:

- Materials or wastes containing potential non-visible pollutants are not stored under watertight conditions. Watertight conditions are defined as (1) storage in a water tight container, (2) storage under a watertight roof or within a building, or (3) protected by temporary cover and containment that prevents storm water contact and runoff from the storage area.
- Materials or wastes containing potential non-visible pollutants are stored under watertight conditions, but (1) a breach, malfunction, leakage, or spill is observed, (2) the leak or spill is not cleaned up prior to the rain event, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system.
- An operational activity, including but not limited to those in Section 600.5.1, with the potential to contribute non-visible pollutants (1) was occurring during or within 24 hours prior to the rain event, (2) applicable BMPs were observed to be breached, malfunctioning, or improperly implemented, and (3) there is the potential for discharge of non visible pollutants to surface waters or a storm sewer system.
- Soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied, and there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system.
- Storm water runoff from an area contaminated by historical usage of the site has been observed to combine with storm water runoff from the site, and there is the

potential for discharge of non-visible pollutants to surface waters or a storm sewer system.

Monitoring Preparation

Samples on the project will be collected by the following Contractor personnel:

Company Name: _____

Personnel Name: _____

Contact Telephone Number: _____

Alternate Personnel Name: _____

Alternate Telephone Number: _____

Sampling personnel will contact the laboratory noted in Section 5.4 prior to the possible sampling event with adequate time to ensure sampling equipment and materials are available and to collect samples, if required.

5.6 Analytical Methods

Quality Assurance/Quality Control

One duplicate sample will be taken during each sampling event. The duplicate samples will be collected, handled, and analyzed the same as all other samples collected. The duplicate samples will be taken immediately after each primary sample has been collected and shall be collected where contamination is likely, not in the background sample. Duplicate samples shall only be used as a check for laboratory quality assurance.

Data Management and Reporting

A copy of all water quality analytical results and QA/QC data will be included in the on-site SWPPP within 5 days of sampling (for field analyses, if any) and within 30 days of sampling (for laboratory analyses).

Lab reports and COCs will be reviewed for consistency between lab methods, sample identifications, dates, and times for both primary samples and QA/QC samples. All data, including COC forms and Sampling Activity Logs, shall be kept with the SWPPP.

Data Evaluation

An evaluation of the water quality sample analytical results, including figures with sample locations, the water quality analytical results, and the QA/QC data for every event that samples are collected, will be included in the on-site SWPPP. Should the downstream sample concentrations exceed the upstream sample concentrations, the QSP or other personnel will evaluate the BMPs, site conditions, surrounding influences (including the run-on sample analysis), and other site factors to determine the probable cause for the increase.

As determined by the data and project evaluation, appropriate BMPs will be repaired or modified to mitigate increases in sediment concentrations in the water body. Any revisions to the BMPs will be recorded as an amendment to the SWPPP.

Change of Conditions

Whenever SWPPP monitoring indicates a change in site conditions that might affect the appropriateness of sampling locations, testing protocols will be revised accordingly. All such revisions will be recorded as amendments to the SWPPP.

5.7 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
- Sampling records, forms and logs
- A summary of all analytical results from the last three years and associated documents
- Records of follow up inspections or corrective activities
- Annual Reports

Documents will be retained on-site while construction is ongoing.

Section 6

References

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

- Project plans and specifications “Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm)” by Westwood Professional Services, Inc, April 11, 2012.
- State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) No. CAS000002, General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities.
- California Stormwater BMP Handbook – Construction, November 2009
- California Stormwater Quality Association SWPPP Template, July 2006
- Caltrans Storm Water Quality Handbooks, February 2003
- Preliminary Geotechnical Report, Ocotillo Express Wind Project Imperial County, California, prepared by Renewable Resource Consultants, March 26, 2012.
- Section 401 Water Quality Certification Application

Attachment A

Vicinity Map

Attachment B

Erosion and Sediment Control Drawings

See Civil Construction Plans for Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm) by Westwood Professional Services

Attachment C

BMP Checklist

CONSTRUCTION SITE BMP 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	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
EC-1	Scheduling	X		
EC-2	Preservation of Existing Vegetation	X		
EC-3	Hydraulic Mulch		X	Not applicable to project
EC-4	Hydroseeding		X	Not applicable to project
EC-5	Soil Binders	X		
EC-6	Straw Mulch		X	Not applicable to project
EC-7	Geotextiles & Mats		X	Not applicable to project
EC-8	Wood Mulching		X	Not applicable to project
EC-9	Earth Dikes & Drainage Swales		X	Not anticipated in project design
EC-10	Velocity Dissipation Devices	X		
EC-11	Slope Drains		X	No steep slopes / cut and fill areas w/in project area
EC-12	Streambank Stabilization	X		
EC-13	Polyacrylamide		X	Do not want to increase potential of non-visible pollutants

**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	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
SE-1	Silt Fence		X	Other BMPs used in place of silt fence
SE-2	Sediment Basin		X	
SE-3	Sediment Trap		X	Watershed exceeds 5 acres
SE-4	Check Dam	X		
SE-5	Fiber Rolls	X		
SE-6	Gravel Bag Berm	X		
SE-7	Street Sweeping and Vacuuming	X		
SE-8	Sand Bag Barrier	X		
SE-9	Straw Bale Barrier		X	Bags and fiber rolls used instead
SE-10	Storm Drain Inlet Protection		X	Storm drains not anticipated on project
SE-11	Chemical Treatment		X	Not applicable to project

WIND EROSION CONTROL BMPs

WE-1	Wind Erosion Control	X		
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TRACKING CONTROL BMPs

TC-1	Stabilized Construction Entrance/Exit	X		
TC-2	Stabilized Construction Roadway	X		
TC-3	Entrance/Outlet Tire Wash		X	Not applicable to project

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	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
NS-1	Water Conservation Practices	X		
NS-2	Dewatering Operations		X	Not applicable to project
NS-3	Paving and Grinding Operations	X		
NS-4	Temporary Stream Crossing	X		
NS-5	Clear Water Diversion		X	No diversion needed / Not applicable to project
NS-6	Illicit Connection/ Discharge	X		
NS-7	Potable Water/Irrigation		X	No water utilities or irrigation planned
NS-8	Vehicle and Equipment Cleaning	X		
NS-9	Vehicle and Equipment Fueling	X		
NS-10	Vehicle and Equipment Maintenance	X		
NS-11	Pile Driving Operations		X	Not applicable to project
NS-12	Concrete Curing	X		
NS-13	Concrete Finishing	X		
NS-14	Material and Equipment Use Over Water		X	Not applicable to project
NS-15	Demolition Adjacent to Water		X	No Demolition anticipated / Arid Environment
NS-16	Temporary Batch Plants		X	No batch plants planned

**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	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
WM-1	Material Delivery and Storage	X		
WM-2	Material Use	X		
WM-3	Stockpile Management	X		
WM-4	Spill Prevention and Control	X		
WM-5	Solid Waste Management	X		
WM-6	Hazardous Waste Management	X		
WM-7	Contaminated Soil Management	X		
WM-8	Concrete Waste Management	X		
WM-9	Sanitary/Septic Waste Management	X		
WM-10	Liquid Waste Management	X		

Attachment D

Computation Sheet for Determining Runoff Coefficients

$$\text{Total Site Area} = \underline{\hspace{2cm} 12,800 \text{ acres} \hspace{2cm}} \quad (\text{A})$$

Existing Site Conditions

$$\text{Impervious Site Area}^1 = \underline{\hspace{2cm} 166.4 \text{ acres} \hspace{2cm}} \quad (\text{B})$$

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

$$\text{Pervious Site Area}^3 = \underline{\hspace{2cm} 12,633.6 \text{ acres} \hspace{2cm}} \quad (\text{D})$$

$$\text{Pervious Site Area Runoff Coefficient}^4 = \underline{\hspace{2cm} 0.25 \hspace{2cm}} \quad (\text{E})$$

$$\text{Existing Site Area Runoff Coefficient} \quad \frac{(\text{B} \times \text{C}) + (\text{D} \times \text{E})}{(\text{A})} = \underline{\hspace{2cm} 0.26 \hspace{2cm}} \quad (\text{F})$$

Proposed Site Conditions (after construction)

$$\text{Impervious Site Area}^1 = \underline{\hspace{2cm} 280.32 \text{ acres} \hspace{2cm}} \quad (\text{G})$$

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

$$\text{Pervious Site Area}^3 = \underline{\hspace{2cm} 12,519.68 \text{ acres} \hspace{2cm}} \quad (\text{I})$$

$$\text{Pervious Site Area Runoff Coefficient}^4 = \underline{\hspace{2cm} 0.25 \hspace{2cm}} \quad (\text{J})$$

$$\text{Proposed Site Area Runoff Coefficient} \quad \frac{(\text{G} \times \text{H}) + (\text{I} \times \text{J})}{(\text{A})} = \underline{\hspace{2cm} 0.26 \hspace{2cm}} \quad (\text{K})$$

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.

Attachment E

Run-on Discharges

Existing Site Conditions

The run-on discharge is based on a 10-year rainfall event utilizing the SCS unit hydrograph method for a 53,700 acre area. The total flow is dispersed between multiple channels and not a single point source of discharge. The average run-on discharge is approximately 12,300 cfs.

Attachment F

Notice of Intent (NOI)

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, Scheduling	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Review project schedule. Amend to show updated information or changes from weather, contractors or progress.
EC-2, Preservation of Existing Vegetation	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Replace damaged vegetation
EC-5, Soil Binders	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Reapply as needed ■ Reapply when inactive for 14 days or longer
TEMPORARY SEDIMENT CONTROL BMPs		
SE-4, Check Dam	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Repair washouts along sides and extend to ensure water flows over top of check ■ Repair or cleanout sediment prior to storm events
SE-5, Fiber Rolls	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Repair or replace as needed ■ Repair, cleanout or replace prior to storm event
SE-6, Gravel Bag Berms	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Replace gravel bags after 2-3 months due to sun light degrading material as needed ■ Reposition bags if fallen or moved as necessary ■ Observe for and repair scour or washouts ■ Remove sediment once 1/3 full; remove bags once contributing area is stable
SE-7 Street Sweeping and Vacuuming	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Monitor areas daily during active egress / hauling activity ■ If sediment is observed from exit; sweeping is needed at least daily ■ Dispose of accumulated sediment from sweeping activity properly

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
SE-8 Sand Bag Barrier	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Replace sand bags after 2-3 months due to sun light degrading material as needed ■ Reposition bags if fallen or moved as necessary ■ Observe for and repair scour or washouts ■ Remove sediment once 1/3 full; remove bags once contributing area is stable
WIND EROSION CONTROL BMPs		
WE-1, Wind Erosion Control	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Check applicable areas to ensure proper coverage; reapply as needed
EC-5, Soil Binders	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Reapply as needed ■ Reapply when inactive for 14 days or longer
TRACKING CONTROL BMPs		
TC-1, Stabilized Construction Entrance/Exit	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Clean or replace or top dress as needed and prior to storm event
TC-2, Stabilized Construction Roadway	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Clean, replace or top dress as needed
NON-STORM WATER MANAGEMENT BMPs		
NS-1, Water Conservation Practices	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Keep watering equipment in good condition
NS-3, Paving and Grinding Operations	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Inspect to ensure BMPs are in place prior to starting activity ■ Keep drip pans, spill kits and cleanup material available ■ Inspect and maintain machine and equipment regularly to minimize drips / leaks
NS-6, Illicit Connection/ Discharge	Preconstruction, Weekly and Pre, post and interim storm events	<ul style="list-style-type: none"> ■ Contain any material present ■ Remove and properly dispose of material
NS-8, Vehicle and Equipment Cleaning	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Observe areas daily during active use ■ Inspect perimeter for adequacy; repair berms as needed ■ Inspect sumps, containers and materials and cleanout / remove material as needed ■ Properly dispose of all waste material ■ Prohibit personal use of area for private vehicles from workers

<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
NS-9, Vehicle and Equipment Fueling	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Observe daily for leaks and spill during activity ■ Keep cleanup materials near designated areas ■ Remove vehicles in which leaks cannot be repaired ■ Replace drip pans or plastic as needed
NS-10, Vehicle and Equipment Maintenance	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Observe daily for leaks and spill during activity ■ Keep cleanup materials near designated areas ■ Remove vehicles in which leaks cannot be repaired ■ Replace drip pans or plastic as needed
NS-12, Concrete Curing NS-13, Concrete Finishing	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Observe daily for leaks, spills and containment during activity ■ Keep cleanup materials near activity ■ Contain, cleanup and properly dispose of material regularly /as needed
WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs		
WM-1, Material Delivery and Storage	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Repair or replace storage area as needed ■ Keep containment area free of water and spills
WM-2, Material Use	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Spot check employees' material usage
WM-3, Stockpile Management	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Repair or replace as needed ■ Repair or replace prior to storm
WM-4, Spill Prevention and Control	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Verify spill cleanup materials are located near storage areas and delivery locations
WM-5, Solid Waste Management	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Remove waste when containers are full ■ Train employees on proper disposal of litter ■ Cover waste containers daily and prior to storm
WM-6, Hazardous Waste Management	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Regularly collect material for disposal and removal from site ■ Verify spill cleanup material is nearby and in stock

<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
WM-7, Contaminated Soil Management	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Observe daily for leaks and spill daily ■ Keep cleanup materials easily accessible and near areas of potential pollutants ■ Remove equipment and vehicles in which leaks cannot be repaired ■ Remove and properly disposed of contaminated soil immediately
WM-8, Concrete Waste Management	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Replace concrete washout pits as needed ■ Dispose of waste properly
WM-9, Sanitary/Septic Waste Management	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Pick up and dispose of sanitary waste spills promptly ■ Regularly maintain facility with certified contractor
WM-10, Liquid Waste Management	Weekly Pre, post and interim Storm events	<ul style="list-style-type: none"> ■ Observe activity and presence of controls daily during activity ■ Repair BMPs as needed ■ Contain, remove and dispose of materials as needed

Attachment H

Risk Determination Worksheets

Erosivity Calculations

Construction Dates	=	<u>5/1/12 to 12/31/13</u>
El distribution zone	=	<u>26</u>
El percentage May 1 to December 31: 100 % - 27.4 %	=	<u>72.6%</u>
El percentage January 1 to December 31: 100 % - 0 %	=	<u>100%</u>
El percentage for project duration: 100 % + 72.6%	=	<u>172.6%</u>
Interpolated annual erosion index for project location	=	<u>10</u>
R-Factor for Project Duration: 10 x (172.6 %)	=	<u>17.26</u>

Attachment I

Storm Water Quality Construction Site Inspection Checklist

SWPPP Inspection Checklist
Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm)
WDID Number: 7 13C363445

Inspection Type (circle): Routine Pre Interim Post				Inspection Date:		Inspection Time:	
Weather Information	Precip present	Yes No (circle)	Storm Start Date:	Storm Completion Date:			
Total Rainfall (in)/ Rain Gauge Reading:		Days since last rain:		Area Exposed (acres)			
Site Information	Stage of Construction			Activities Completed			
No.	Inspection Question/ Identified deficiencies and location	Yes	No	Corrective action taken		Date Corrected	
1	Is tracking control properly installed, maintained, and effectively preventing tracking off site?						
2	Are existing sediment control BMPs properly installed and maintained?						
3	Are additional sediment control BMPs needed?						
4	Are existing erosion control BMPs properly installed and maintained?						
5	Are additional erosion control BMPs needed?						
6	Is waste properly disposed of in designated areas?						
7	Are materials properly stored in designated areas?						
8	Is soil properly protected from leaks or drips from equipment?						

SWPPP Inspection Checklist Page 2
Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm)
Date: _____

No.	Inspection Question/ Corrective actions and location	Yes	No	Corrective action taken	Date Corrected
9	Are concrete washout pit properly installed, used, and maintained?				
10	Are wind erosion control BMPs effective?				
11	Are BMPs implemented in accordance with SWPPP/REAP?				
12	Are sediment basins and storm water storage areas free of leaks and have adequate freeboard?				
13	Are floating and suspended materials, a sheen on the surface, discolorations, turbidity, odors or pollutants observed in storm water storage areas?				
14	Are floating and suspended materials, a sheen on the surface, discolorations, turbidity, odors or pollutants observed in storm water discharge points?				

Comments:

"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 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."

Inspector Signature, date		Printed Name and Title	
------------------------------	--	---------------------------	--

Attachment J

Trained Contractor Personnel Log / QSD / QSP Qualifications

Storm Water Management Training Log

Project Name: Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm)

WDID No: 7 13C363445

Storm Water Management Topic: (check as appropriate)

- Erosion Control
- Wind Erosion Control
- Non-storm water management
- Storm Water Sampling
- Sediment Control
- Tracking Control
- Waste Management and Materials Pollution Control

Specific Training Objective: _____

Location: _____ Date: _____

Instructor: _____ Telephone: _____

Course Length (hours): _____

Attendee Roster (attach additional forms if necessary)

Name	Company	Phone

COMMENTS:

Summary of QSD - Training / Qualifications

Aaron Mlynek, CPESC (#3344), QSD (#01306)

Certifications/Degrees

- Qualified SWPPP Developer
- Certified Professional in Erosion and Sediment Control
- Certified Erosion, Sediment and Storm Water Inspector
- Certified Inspector of Sediment and Erosion Control
- B.S. in Natural Resource Management and Conservation

Training

- IECA
 - SWPPP Design / Planning
 - Effective Inspection Programs for Construction Site Runoff Control
 - BMP Application and Design
- University of Minnesota
 - SWPPP Design
 - Construction Site Stormwater Management
- Enviro Tech Services
 - California Construction General Permit QSD/QSP Training Course

Memberships

- International Erosion Control Association
- Minnesota Erosion Control Association

Attachment K

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.

Company Name 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,

SUBCONTRACTOR NOTIFICATION LOG

Project Name: Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm)

WDID No: 7 13C363445

SUBCONTRACTOR COMPANY NAME	CONTACT NAME	ADDRESS	PHONE NUMBER	PAGER/ FIELD PHONE	DATE NOTIFICATION LETTER SENT	TYPE OF WORK

USE ADDITIONAL PAGES AS NECESSARY

Attachment L

Notice of Non-Compliance

To:

Date:

Subject: Notice of Non-Compliance

Project Name: Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm)

WDID No: 7 13C363445

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

Nature of the operation that caused the discharge

Initial assessment of any impact cause by the discharge

Existing BMP(s) in place prior to discharge event

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

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

Implementation and maintenance schedule for any affected BMPs

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 M

Discharge Reporting Log

Project Name: Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm)

WDID No: 7 13C363445

Date	Material(s) Discharged	Estimated Quantity	Observed By

Attachment N

Annual Report

Attachment O

Other Plans and Permits

Attachment P

Notice of Termination

(Owner to insert completed Notice of Termination upon project completion and related proof of submittal and correspondences for records).

Attachment Q

Sampling Activity Log

RAIN EVENT GENERAL INFORMATION				
Project Name	Ocotillo Wind Energy Facility (Ocotillo Express Wind Farm)			
WDID Number	7 13C363445			
Contractor				
Sampler's Name				
Signature				
Date of Sampling				
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)	

For rainfall information: <http://www.wrh.noaa.gov/wrhq/nwspage.html>

SAMPLE LOG		
Sample Identification	Sample Location	Sample Collection Date and Time

Specific sample locations descriptions may include: 100 ft upstream from discharge at eastern boundary, runoff from northern waste storage area, down gradient of inlet located near the intersection of A Street and B Avenue, etc.

FIELD ANALYSIS		
<input type="checkbox"/> Yes <input type="checkbox"/> No		
Sample Identification	Test	Result

Attachment R

Pollutant Testing Guidance Table

Category	Construction Site Material	Visually Observable?	Pollutant Indicators ²
Asphalt Products	Hot Asphalt	Yes - Rainbow Surface or Brown Suspension	Visually Observable - No Testing Required
	Asphalt Emulsion		
	Liquid Asphalt (tack coat)		
	Cold Mix		
	Crumb Rubber	Yes – Black, solid material	Visually Observable - No Testing Required
	Asphalt Concrete (Any Type)	Yes - Rainbow Surface or Brown Suspension	Visually Observable - No Testing Required
Cleaning Products	Acids	No	pH Acidity Anions (acetic acid, phosphoric acid, sulfuric acid, nitric acid, hydrogen chloride)
	Bleaches	No	Residual Chlorine
	Detergents	Yes - Foam	Visually Observable - No Testing Required
	TSP	No	Phosphate
	Solvents	No	VOC SVOC
Adhesives	Adhesives	No	COD
			Phenols
			SVOC
Dust Palliative Products	Salts (Magnesium Chloride, Calcium Chloride, and Natural Brines)	No	Chloride
			TDS
			Cations (Sodium, Magnesium, Calcium)

Category	Construction Site Material	Visually Observable?	Pollutant Indicators ²
Landscaping and Other Products	Aluminum Sulfate	No	Aluminum
			TDS
			Sulfate
	Sulfur-Elemental	No	Sulfate
	Fertilizers-Inorganic ⁴	No	Nitrate
			Phosphate
			Organic Nitrogen
			Potassium
	Fertilizers-Organic	No	TOC
			Nitrate
			Organic Nitrogen
			COD
	Natural Earth (Sand, Gravel, and Topsoil)	Yes - Cloudiness and turbidity	Visually Observable - No Testing Required
Herbicide	No	Herbicide	
Pesticide		Pesticide	
Lime		Alkalinity	
		pH	
Treated Wood Products	Ammoniacal-Copper-Zinc-Arsenate (ACZA) Copper-Chromium-Arsenic (CCA) Ammoniacal-Copper-Arsenate (ACA) Copper Naphthenate	No	Arsenic
			Total Chromium
			Copper
			Zinc
	Creosote	Yes - Rainbow Surface or Brown Suspension	Visually Observable - No Testing Required
Line Flushing Products	Chlorinated Water	No	Total chlorine
Portable Toilet Waste Products	Portable Toilet Waste	Yes	Visually Observable - No Testing Required

Category	Construction Site Material	Visually Observable?	Pollutant Indicators ²
Contaminated Soil ⁵	Aerially Deposited Lead ³	No	Lead
	Petroleum	Yes – Rainbow Surface Sheen and Odor	Visually Observable - No Testing Required
	Other	No	Contaminant Specific
Vehicle	Antifreeze and Other Vehicle Fluids	Yes - Colored Liquid	Visually Observable - No Testing Required
	Batteries	No	Sulfuric Acid
			Lead
			pH
Fuels, Oils, Lubricants	Yes - Rainbow Surface Sheen and Odor	Visually Observable - No Testing Required	
Painting Products	Paint	Yes	Visually Observable - No Testing Required
	Paint Strippers	No	VOC
			SVOC
	Resins	No	COD
			SVOC
	Sealants	No	COD
	Solvents	No	COD
			VOC
			SVOC
	Lacquers, Varnish, Enamels, and Turpentine	No	COD
			VOC
			SVOC
	Thinners	No	VOC
COD			

Category	Construction Site Material	Visually Observable?	Pollutant Indicators ²
Soil Amendment/Stabilization Products	Polymer/Copolymer ^{6,7}	No	Organic Nitrogen
			BOD
			COD
			DOC
			Nitrate
			Sulfate
			Nickel
	Straw/Mulch	Yes - Solids	Visually Observable - No Testing Required
	Lignin Sulfonate	No	Alkalinity
			TDS
	Psyllium	No	COD
			TOC
	Guar/Plant Gums	No	COD
			TOC
			Nickel
Gypsum	No	pH	
		Calcium	
		Sulfate	
		Aluminum	
		Barium	
		Manganese	
Vanadium			
Portland Concrete Cement & Masonry Products	Portland Cement (PCC)	Yes - Milky Liquid	Visually Observable - No Testing Required
	Masonry products	No	pH
			Alkalinity
	Sealant (Methyl Methacrylate - MMA)	No	Methyl Methacrylate
			Cobalt
			Zinc
	Incinerator Bottom Ash Bottom Ash Steel Slag Foundry Sand Fly Ash Municipal Solid Waste	No	Aluminum Calcium Vanadium Zinc

Category	Construction Site Material	Visually Observable?	Pollutant Indicators ²
	Mortar	Yes - Milky Liquid	Visually Observable - No Testing Required
	Concrete Rinse Water	Yes - Milky Liquid	Visually Observable - No Testing Required
	Non-Pigmented Curing Compounds	No	Acidity
			Alkalinity
			pH
			VOC
SVOC			

Notes:

1. If specific pollutant is known, analyze only for that specific pollutant. See MSDS to verify.
2. For each construction material, test for one of the pollutant indicators. Bolded pollutant indicates lowest analysis cost or best indicator. However, the composition of the specific construction material, if known, is the first criterion for selecting which analysis to use.
3. See www.hach.com, www.lamotte.com, www.yesi.com and www.chemetrics.com for some of the test kits
4. If the type of inorganic fertilizer is unknown, analyze for all pollutant indicators listed.
5. Only if special handling requirements are required in the contract documents for aerially deposited lead (ADL)
6. If used with a dye or fiber matrix, it is considered visually observable and no testing is required.
7. Based upon research conducted by the State of California Department of Transportation (Caltrans), the following copolymers/polymers do not discharge pollutants and water quality sampling and analysis is **not** required: Super Tak™, M-Binder™, Fish Stik™, Pro40dc™, Fisch-Bond™, and Soil Master WR™.

(Modified after Attachment S from Caltrans Storm Water Quality Handbooks, February 2003)

Attachment S

Approved Signatory Certification

The person listed below is authorized by the Legally Responsible Person of Ocotillo Express, LLC to sign, certify, and electronically submit Permit Registration Documents, Notices of Termination and any other document, reports, or information required by the General Permit, the State or Regional Water Board, or U.S. EPA. This person meets the definition of an approved signatory as defined in the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, State Water Resources Board Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ, NPDES No. CAS000002 (General Permit).

Approved Signatory Signature

Date

Name and Title

Telephone Number

LRP Signature

Date

Name and Title

Telephone Number

Attachment T

Emergency Contact List

Owner

Ocotillo Express LLC
Pier 1 Bay 3
San Francisco California 94111

RWQCB (7)

Colorado River
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260
760-346-7491

Contractor

QSD

QSP

Project Engineer

Certified Laboratory

ATS Analytical Laboratories
104 South 8th Street
Brawley, CA 92227
760-344-2532

Local Emergency Response

Emergency Services
Imperial County Sheriff
Certified Unified Program Agency (CUPA)
for Hazardous Materials Emergency

911
760-339-6301
760-353-5222 (fire dispatch)

Notification

National Response Center	800-424-8802 (24 hours/day)
US Environmental Protection Agency, Region 9	800-300-2193 (24 hours/day)
California Emergency Management Agency	800-852-7550
California State Warning Center	916-845-8911
Certified Unified Program Agency (CUPA)	800-468-4408
Imperial County Public Health	760-352-0381
Imperial County Air Pollution Control District	760-482-4606