Appendix I
Stormwater Pollution Prevention Plan (SWPPP)

[NOTE TO REVIEWER: Revised SWPPP has been submitted to BLM and is being confirmed.]

Storm Water Pollution Prevention Plan

For:
Lucerne Solar

Prepared for: Owner / Developer
Chevron Energy Solutions Company, A Division of Chevron USA, Inc
345 California Street, 18th Floor
San Francisco, California 94104
Raphael Varieras
415-733-4735

Owner / Developer / Contractor:
Developer/General Contractor
Street Address
City, State, Zip
Contact person
Phone Number

Project Site Location/Address:
Southeast of Intersection of Santa Fe Fire Road and Foot Hill Road
Lucerne Valley, California, 92356

Contractors Storm Water Pollution Prevention Manager:
SWPPM Name
Company Name
Phone Number

SWPPP Prepared by:
Westwood Profession Services, Inc.
7699 Anagram Drive
Eden Prairie, Minnesota 55431
Aaron Mlynek, CPESC
952-697-5710

SWPPP Preparation Date: May 2010

Estimated Project Dates:
Start of Construction: 4/18/2011 **Completion of Construction:** 9/12/2011

WDID No.: _____

Table of Contents

Section 100

SWPPP Certifications and Approval

100.1 SWPPP Certification by Preparer

Project Name: **Lucerne Solar**

WDID Number:

"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**
Aaron Mlynek, CPESC Erosion Control Coordinator	**612-697-5710**
Name and Title	**Telephone Number**
Reviewer's Signature	**Date**
Chris Carda, PE Project Manager	
Name and Title	

100.2 Owner / Developer Approval and Certification of SWPPP

Owner / Developer
Approval and Certification of the
Storm Water Pollution Prevention Plan

Project Name: **Lucerne Solar**

WDID Number:

"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 / Developer Signature	**Date**
Tim Veale, Project Manager	**626-304-4710**
Owner / Developer Name and Title	**Telephone Number**

100.3 Annual Compliance Certification

By July 1 of each year, the Contractor or Owner shall complete and submit an Annual Certification of Compliance to the Colorado River Basin Regional Water Quality Control Board (RWQCB) 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 **(to be inserted by Owner / Contractor as completed).**

The contact information for the Colorado River Basin RWQCB is:
Colorado River Basin RWQCB
73-720 Fred Waring Dr., Ste.100
Palm Desert, CA 92260
(760) 346-7491

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 Colorado River Basin Regional Water Quality Control Board (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 / Developer / Contractor.

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 Owner / Developer / Contractor"s Certification and the Owner / Developer / Contractor"s approval, can be found in the following pages. Amendments are listed in the Amendment Log in section 200.2.

SWPPP Amendment No.

Project Name: **Lucerne Solar**

WDID Number: _____

Contractor 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."

Contractor's Signature	**Date**
Contractor's Name and Title	**Telephone Number**

Owner / Developer 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's Signature	**Date**
Tim Veale, Project Manager	**626-304-4710**
Name and Title	**Telephone Number**

200.2 Amendment Log

Project Name: **Lucerne Solar**

WDID Number:

Amendment No.	Date	Brief Description of Amendment	Prepared by

Section 300

Introduction and Project Description

300.1 Introduction and Project Description

The Lucerne Valley Solar Project is located in the southwestern part of San Bernardino County in the Lucerne Valley. The site is located at the foot of the San Bernardino National Forest on the western edge of the Mojave Desert. The 516-acre project is contained completely within public lands administered by the United States Department of Interior's Bureau of Land Management (BLM). Specifically, the site is located south of County Road 247 at the intersection of Santa Fe Fire Road, approximately nine miles east of the community of Lucerne Valley.

The project proposes to construct approximately 45 megawatts of electricity through the use of solar photovoltaic panels mounted on piers. This system converts solar radiation into direct current electricity. In addition to the arrays of panels, a 240 square-foot operations and maintenance building will be constructed to provide office space for maintenance staff and to house maintenance equipment. A grid of gravel access roads will be constructed as shown on the Preliminary Construction Plans to provide access to the panels.

The site will be cleared, grubbed, scarified and rough graded during initial construction activity for the project. The intent of grading operations, to minimize erosion potential is to leave the deep washed undisturbed during initial grading activity. The majority of the electrical collection system will be installed by directional boring. The existing deep washes (approximately two feet in depth and greater) will remain in place to allow the larger flows to bypass the proposed improvements. Conversely, the array piers will be constructed through existing shallow drainage paths that are less than two feet in depth to allow the existing flows to continue to fan out and flow through the site as it does under existing conditions. This study will demonstrate that the flow patterns will be maintained while the project is under operation. This minimalistic approach will ease the transition when the site returns to BLM control after the life of the project.

300.2 Unique Site Features

According to the USGS, the channels through the site (which can also be seen in the aerial photography) are classified as active wash deposits consisting of unconsolidated medium to coarse grained sand and sandy gravel with subordinate fine sand and silt. The channels are not vegetated and are characterized by active and recently active sediment accumulation with little or no soil-profile development.

The most-densely vegetated potions of the site are located east of Santa Fe Fire Road and the area and within a quarter of a mile to the west of Santa Fe Fire Road. These areas are designated as

young alluvial fan deposits by the USGS and contain approximately thirty percent vegetation cover consisting of desert creosote bush.

The soil surface in the existing conveyances exhibits prominent bar and swale morphology and the soils consist of unconsolidated to slightly consolidated sand and gravel, poorly to moderately sorted. The braided pattern indicates that flow patterns are unstable and this area is active. The flow channels in this area are typically less than one to two feet in depth and ever-changing.

Endangered species: A comprehensive Biological Resources Assessment for the Chevron Solar Project Site in a Community of Lucerne Valley, California have been completed. The following are excerpts from that document dated 7/29/09 (pages 53- 59).

Two special status wildlife species (desert tortoise and burrowing owl) were either present on the project site during surveys conducted by Chambers Group biologists in March and April 2009, or have a moderate to high potential to occur on the project site due to habitat onsite and / or historic occurrences. Although the Mohave ground squirrel has a low potential to occur on the project site, coordination with the CDFG is recommended for trapping efforts to confirm presence / absence and /or mitigation for this species.

The proposed project will effect but not likely to adversely affect the desert tortoise. The conservation and monitoring measures outlined in the report referenced above and in the USFWS Biological Opinion shall reduce the direct and indirect impacts tot eh desert tortoise and its habitat. Authorized monitors may be present onsite throughout the CES' construction activities and these monitors shall be responsible for the safely of all wildlife species encountered within the project area.

Burrowing owl sign was detected during the protocol level focused surveys. Based on a subsequent survey conducted in June 2009, no new sign or burrowing owls were observed. Coordination with the CDFG is recommended from the report referenced above due to the presence of habitat.

SHPO / Cultural Resources: No significant cultural resources present on site which need to be protected. The cultural resources report may be obtained from the BLM; the cultural resource report is confidential information.

300.3 Construction Site Estimates

The following are estimates of the construction site:

Total site area:	509.65 acres
Disturbed site area:	136.28 acres
Percentage impervious area before construction:	0.1%
Runoff coefficient before construction [(1)]:	0.25
Percentage impervious area after construction:	10.9%
Runoff coefficient after construction [(1)]:	0.28
Anticipated storm water flow on to the construction site [(2)]:	4,700 cfs

(1) Calculations are shown in Attachment D
(2) Calculations are shown in Attachment E

300.4 Projection Schedule/Water Pollution Control Schedule*

Estimated Construction Start:	April 18, 2011
Estimated Construction Finish:	September 12, 2011
Mobilization of Equipment and Materials (Lay down Area):	April 18-23, 2011
Installation of Sediment Controls:	April 25, 2011
Store Temporary Erosion and Sediment Control Materials:	April 25, 2011
Install Stabilized Entrance / Exit:	April 25, 2011
Install Non-Storm Water Controls:	April 18, 2011
Begin Road Grading Operation:	April 25, 2011
Begin Substation	May 30, 2011
Begin Utility Operations (Underground):	April 25, 2011
Begin Utility Operations (Overhead):	July 11, 2011
Begin Operation and Maintenance Building Activity:	July 11, 2011
Start Installation of Rainy Season BMPs:	November 15, 2011
Complete installation of Rainy Season BMPs:	December 1, 2011
Rainy Season:	December 2011 – March 2011
Implement Final Erosion Control of Completed Areas	August 1, 2011
File Notice of Termination with the SWQCB	August 15, 2011

***A more detailed implementation schedule shall be attached at the end of this Section (300) by the contractor.**

300.5 Contact Information/List of Responsible Parties

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

Name, Title and Certifications
Phone Number
Company Name
Company Address
City, State, ZIP

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 Owner / Developer / Contractor's 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
- 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 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

Section 400

References

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

- Project plans and specifications “Lucerne Solar Construction Plans”, Project Number 20081195 Dated: 01/15/2010 prepared by Westwood Professional Services, 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
- California Stormwater Quality Association SWPPP Template, July 2006
- Geotechnical Investigation Report, completed by Earth Systems Southwest, Dated: 01/08/10.
- Environmental Impact Statement and Amendment to the California Desert Conservation Area Plan Lucerne Valley Solar Project San Bernardino County,

California. Public Scoping Summary Report. October 9, 2009. Completed by Ecology and Environment, Inc.

- Weed Control Plan. Chevron Energy Solutions. Dated: January 10, 2010 (as revised).

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,
- Identify non-storm water discharges,
- 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
- 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), and
- 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 to the required elements of General Permit 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.

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.

500.3 Pollutant Source Identification and BMP selection

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

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) provided in Attachment B and/or in Sections 500.3.4 through 500.3.9:

- Vehicle fluids, including oil, grease, petroleum, and coolants
- Solvents, thinners
- Concrete curing compounds
- Cement materials including underground structures and above ground structures
- General Litter
- Base and sub-base materials
- Paints
- Solvents and Thinners
- Mortar Mix
- BMP materials
- Treated Lumber
- PCC rubble
- Landscape materials(Herbicides)

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)
- Landscaping

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.

500.3.2 Existing (pre-construction) Control Measures

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

500.3.3 Nature of Fill Material and Existing Data Describing the Soil

Fill Material:

Material imported to the site will consist of a granular "B" type II base material used to construct the access roads. This material will be compacted and poses a slight erosion risk.

Existing Soils:

Soils in the area present a moderate erosion risk as the K Factor (Soil Erodibility Factor, rock fragments free: An erodibility factor which quantifies the rock fragments free susceptibility of soil particles to detachment and movement by water. This factor is used in the Revised Universal Soil Loss Equation to calculate soil loss by water) is an average of 0.27 with a range from 0.15 to 0.43.

Soil make up varies between Gravelly Loamy Sand, Sand, Gravelly Sand, Loamy Fine Sand, Gravelly Sandy Loam and Gravelly Loam. Fine Sands and Loamy sand will be the primary concern of wind and water erosion within the project area.

The prevailing hydrologic soil group throughout the Mojave and this site is Group A. This classification is provided by the National Resource Conservation Service based on the soil‟s runoff potential. Group A generally consists of sandy soils with low runoff potential and high infiltration rates even when thoroughly wetted. The upstream watershed from the site includes type D soils with higher runoff potential and lower infiltration rates.

The geomorphic assessment is collaborated by the soil borings taken by Earth Systems Southwest in late 2009. According to the geotechnical assessment by Earth Systems Southwest, the site consists of a three to five foot layer of silty sand over a layer of hardened caliche. Refer to the geotechnical report in Attachment N for additional information.

There are no known past uses of the site which would contribute pollutants to the storm water discharge at the time of completion of this report.

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 protects 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, SWPPP Manager, or Owner. All temporary and permanent erosion control BMPs such as mulch, blanket and seed shall conform to the Weed Management Plan completed by Chevron dated January 10, 2010 (As Revised). 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 measures 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 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-3 Hydraulic Mulch
- EC-4 Hydro seeding
- EC-5 Soil Binders
- EC-7 Geotextiles and Mats

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. Approximately 80% of the project area will be left undisturbed.

- Minimize contractor access through communications to preserve existing vegetation outside of the road grading and lay-down areas.

EC-3, Hydraulic Mulch

- Use of non-paper based hydraulic mulch should be used for temporary cover of exposed soils prior to significant forecasted rain events.
- Apply hydraulic mulches to stockpiles or other exposed soils adjacent to access roads for temporary cover.
- Allow 24 hours for drying prior to a forecasted rain event.

EC-4, Hydro seeding

- Contractor should consult the local NRCS office for seed mixtures
- Apply hydro seeding prior to rainy season on final graded areas
- Hydro seeding should be used in conjunction with EC-3 for temporary cover
- Additional applications may be necessary until adequate vegetation is established (70% density of existing vegetation is approximately 21%).

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 for particular applications and shall meet CASQA standards and specifications.

EC-7, Geotextiles and Mats

- Erosion control blankets may be used to stabilize areas that will remain disturbed for more than two weeks.
- Erosion control blankets may be used in areas of concentrated flow which has been disturbed due to construction activity.
- Erosion control blankets may be used for areas around the Arizona Crossing banks / slopes.
- Erosion control blankets will be repaired or replaced as needed.
- Stapling and material of blankets shall be selected by the contractor or SWPPM and applied according to CASQA standards and specifications.
- Use of 6-mil plastic sheeting may be used for temporary cover of stock piles or spoil piles of material.

The SWPPM will implement erosion control BMPs 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. The SWPPM will implement erosion control measures as needed before, during and after storm events.

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 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 WPCD‟s 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-1, Silt fence

- Silt fence may be used as site perimeter where conditions warrant such as around the staging / lay down area
- Silt fence could be used in areas of sheet flow to protect adjacent conveyances
- Silt fence will be repaired and replaced as needed according to findings of inspections.

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.

500.3.6 Tracking Control

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

- TC-1 Stabilized construction entrance
- TC-2 Stabilized construction roadway

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 or EC-5 will likely be needed to minimize wind erosion
- Minimize traffic speed to prevent excess dust generation along roads

The SWPPM shall construct stabilized construction entrances / exits for the project site as shown on the attached erosion control plan. Stabilized constructed roadways will be implemented by the SWPPM as necessary to minimize potential of dust and erosion of exposed soils during construction.

500.3.7 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

- Potable 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 for particular applications and shall meet CASQA standards and specifications.

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.

500.3.8 Non-Storm Water Control

An inventory of construction activities and potential non-storm water discharges is provided in Section 500.3.1. 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-1 Water Conservation Practices
- NS-6 Illicit Connection / Illegal Discharge Detection and Reporting
- NS-9 Vehicle and equipment fueling
- NS-10 Vehicle and equipment maintenance
- 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-6, Illicit Connection / Illegal Discharge Detection and Reporting

- Contractor shall review SWPPP prior to construction
- SWPPM 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-9, Vehicle and equipment fueling

- Vehicle and equipment fueling will occur off-site.
- If impractical to send equipment off-site, fueling will only take place in designated areas via fueling truck.
- Leaks and spills will be cleaned up daily.
- Drip pans or absorbent pads shall be used during fueling.

NS-10, Vehicle and equipment maintenance

- Drip pans or absorbent pads shall be used during maintenance work that involves fluids.
- Dedicated maintenance areas will be located 50 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.

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

500.3.9 Waste Management and Materials Pollution Control

An inventory of construction activities, materials, and wastes is provided in Section 500.3.1. 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-6 Hazardous Waste Management
- WM-8 Concrete waste management
- WM-9 Sanitary/Septic waste management
- WM-10 Liquid Waste 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.
- 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.
- Manufacturers‟ directions will be followed for the uses of materials.
- Employees shall be trained in proper material usage.

WM-3, Stockpile management

- Bagged material 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 prior to the onset of precipitation or wind.

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.

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.

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 material shall be in original, labeled containers.

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 within 48 hours of removal, or covered with plastic, on plastic 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.

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.

Construction materials and stockpiles of material shall be stored in areas away from storm water drainage or conveyance areas.

Stockpiles of soil and fill material shall be located within sediment barriers as described in Section 500.3.5.

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 SWPPM 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 if material in the dumpster could be a stormwater pollutant.

The SWPPM shall provide convenient, well maintained temporary sanitary facilities for use by all personnel during working hours. Maintenance of the facilities shall be arranged with a septic waste service provider. Temporary sanitary facilities shall be located away from drainage ways and stormwater conveyances.

Contaminated soils are not believed to be present within the site area; should contaminated soils be discovered the material must be isolated and protected from stormwater contact and hauled off site for disposal or treatment by a licensed hazardous waste hauler.

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:

- Within 24 hours prior to a forecast storm
- Within 24 hours after a storm event that causes runoff from the construction site
- Every 24 hours during extended rain events

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

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

During an inspection the qualified 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.
- Corrective actions required including any changes to the SWPP and implementation dates for such actions
- Inspectors name, title and signature.

500.6 Post-Construction Storm Water Management

500.6.1 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. It is estimated the native preconstruction vegetated cover is 30%. 70% of 30% = (0.70 x 0.30) 0.21 or 21%. 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 21% uniform 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.

No permanent stormwater control practices are planned as runoff should be infiltrated into the pervious soil areas.

500.6.2 Operation/Maintenance after Project Completion

Post construction BMPs above (permanent vegetated cover and access roads) will be funded and maintained by Chevron Energy Solutions Company.

500.7 Training

Section 300.5 shows the name of the Contractor"s Storm Water Pollution Prevention Manager (SWPPM). Training documentation can be found in Attachment I **(SWPPM shall insert training documentation)**

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

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 / subcontractors will be maintained and included in the SWPPP by the SWPPM.** 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

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

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 in addition to conducting an inspection once every month. The results of all inspections and assessments will be documented and a copy of inspections shall be provided to the Owner / Developer / Contractor within 24 hours. Copies of the completed inspection checklists will be maintained with the SWPPP on site. Site inspections conducted for monitoring purposes will be performed using the inspection checklist included in Attachment H.

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

Assigned inspector / SWPPM:_____Contact phone: _____

600.2 Non-Compliance Reporting

If a contaminated discharge occurs or if the project receives a written notice of non-compliance, the Contractor will immediately notify the Owner / Developer and will file a written report to the owner / developer within 7 days of the discharge or notice. The Owner is responsible for filing a written report to the Colorado River Basin 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 R.

The report to the Owner and to the Colorado River Basin 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
- Sampling records, forms and logs

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).

600.5 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 is a list of construction materials, wastes or activities, as identified in Section 500.3.1, that 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.

- Vehicle fluids, including oil, grease, petroleum, and coolants
- Solvents, thinners
- Concrete curing compounds
- Cement materials including underground structures and above ground structures
- General Litter
- Base and sub base materials
- Paints
- Solvents and Thinners
- Mortar Mix
- BMP materials
- Treated Lumber
- PCC rubble
- Landscape materials (Herbicides)

Sampling for non-visible pollutants will be conducted when (1) a breach, leakage, malfunction, or spill is observed; and (2) the leak or spill has not been cleaned up prior to the rain event; and (3) there is the potential for discharge of non-visible pollutants to surface waters or drainage system.

600.5.2 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 daylight hours (sunrise to sunset) and shall be collected regardless of the time of year, status of the construction site, or day of the week.

In conformance with the U.S. Environmental Protection Agency definition, a minimum of 72 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.

Sampling Locations

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 WPCDs in Attachment B at discharge points.

A sampling location has been identified for the collection of an uncontaminated sample of runoff as a background sample for comparison with samples being analyzed for non-visible pollutants. This location was 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 500.3.1 or areas of disturbed soil / construction activity. This sampling location is denoted as "Sample Area A" or "SA-A". A sample location from lay-down area where potential storage or placement of materials may be present is labeled as "Sample Area – B" or "SA-B" which is located east of Santa Fe Fire Road.

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 WPCDs, sampling locations will be selected using the same rationale as that used to identify planned locations.

600.5.3 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: _____

Samples on the project site will be collected by the following certified lab:

Lab Name: _____

Street address: _____

City, state, zip: _____

Phone number: _____

The SWPPM and / or Contractor conducting the sampling will contact LAB NAME prior to the possible sampling with adequate time to ensure sampling equipment and materials are available and to collect samples, if required.

600.5.4 Analytical Constituents

Identification of Non-Visible Pollutants

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

- Vehicle fluids, including oil, grease, petroleum, and coolants
- Solvents, thinners
- Concrete curing compounds
- Cement materials including underground structures and above ground structures
- General Litter
- Base and sub base materials
- Paints
- Solvents and Thinners
- Mortar Mix
- BMP materials
- Treated Lumber
- PCC rubble
- Landscape materials (Herbicides)

600.5.5 Sample Collection and Handling

Sample Collection Procedures

Samples of discharge will be collected at the designated sampling locations shown on the WPCDs for observed breaches, malfunction, leakages, spills, operational areas, soil amendment application areas, and historical site usage areas that triggered the sampling event.

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 potential non-visible pollutant discharge location. This separate lab-provided sample container will be used to collect water, which will be transferred to sample bottles for laboratory analysis. 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 be poured directly into sample bottles provided by the laboratory for analysis.

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 lit 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 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: _____

Street address: _____

City, state, zip: _____

Phone number: _____

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.

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 SWPPM should insert copies of the Chain of Custody forms in Attachment P from the approved lab once known. Any maintenance and calibration records will be maintained with the SWPPP and sampling records.

Sample Bottle Identification Labels

Sampling personnel will attach an identification lable 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 AQ / AC assurance.

Storm Water Quality Construction Inspection Checklists

When applicable, the SWPPM will document on the checklist when sampling was conducted for non-visible pollutants during or after a rain event.

600.5.6 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 Q. For samples collected for field analysis, collection, analysis and equipment calibration will be in accordance with the field instrument manufacturer's specifications.

As applicable, the following field instrument(s) will be used for the respective constituents:

*Field Instrument	Constituent

* Instrument(s) will be maintained in accordance with manufacturer's instructions, calibrated before each sampling and analysis event.

600.5.7 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 on laboratory quality assurance.

600.5.8 Data Management and Reporting

A copy of all water quality analytical results and QA/QC data will be included in the onsite 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.

600.5.9 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 Storm Water Pollution Prevention manager 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

600.5.10 Change of Conditions

Whenever SWPPP monitoring, pursuant to Section B of the General Permit, 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.

Attachment A

Vicinity Map

Attachment B

Water Pollution Control Drawings (WPCDs)

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		
EC-4	Hydroseeding	X		
EC-5	Soil Binders	X		
EC-6	Straw Mulch		X	Sandy soils limit effectiveness of crimping
EC-7	Geotextiles & Mats	X		
EC-8	Wood Mulching		X	Not suitable for concentrated flow and need to remove post construction
EC-9	Earth Dikes & Drainage Swales		X	Soils not conducive for dike construction and stability
EC-10	Velocity Dissipation Devices		X	No outlets / stormwater infrastructure
EC-11	Slope Drains		X	No steep slopes / cut and fill areas w/in project area
EC-12	Streambank Stabilization		X	No defined stream channel work or riparian areas
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.

BMP No.	BMP	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
SEDIMENT CONTROL BMPs				
SE-1	Silt Fence	X		
SE-2	Sediment Basin		X	Arid environment and minimal or sporadic disturbed areas
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	Silt fence and fiber logs used instead
SE-7	Street Sweeping and Vacuuming		X	No paved surfaces
SE-8	Sand Bag Barrier		X	Silt fence and fiber logs used instead
SE-9	Straw Bale Barrier		X	Silt fence and fiber logs used instead
SE-10	Storm Drain Inlet Protection		X	No stormwater inlets within or adjacent to project area
SE-11	Chemical Treatment		X	Arid Environment
WIND EROSION CONTROL BMPs				
WE-1	Wind Erosion Control	X		
TRACKING CONTROL BMPs				
TR-1	Stabilized Construction Entrance/Exit	X		
TR-2	Stabilized Construction Roadway	X		
TR-3	Entrance/Outlet Tire Wash		X	Arid Environment / 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	Arid Environment
NS-3	Paving and Grinding Operations		X	No paving / grinding activity planned
NS-4	Temporary Stream Crossing		X	No stream crossings anticipated
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	Cleaning will take place off site
NS-9	Vehicle and Equipment Fueling	X		
NS-10	Vehicle and Equipment Maintenance	X		
NS-11	Pile Driving Operations		X	Pile driving operations not near water or ground water
NS-12	Concrete Curing	X		
NS-13	Concrete Finishing	X		
NS-14	Material and Equipment Use Over Water		X	Arid Environment
NS-15	Demolition Adjacent to Water		X	No Demolition anticipated / Arid Environment
NS-16	Temporary Batch Plants		X	No onsite batch plant 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	No known contamination present on site
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

Total Site Area = 516 Acres (A)

Existing Site Conditions

Impervious Site Area [1] = 0 Acres (B)

Impervious Site Area Runoff Coefficient [2, 4] = 0.75 (C)

Pervious Site Area [3] = 516 Acres (D)

Pervious Site Area Runoff Coefficient [4] = 0.25 (E)

Existing Site Area Runoff Coefficient $\frac{(B \times C) + (D \times E)}{(A)}$ = 0.25 (F)

Proposed Site Conditions (after construction)

Impervious Site Area [1] = 32 Acres (G)

Impervious Site Area Runoff Coefficient [2, 4] = 0.75 (H)

Pervious Site Area [3] = 484 Acres (I)

Pervious Site Area Runoff Coefficient [4] = 0.25 (J)

Proposed Site Area Runoff Coefficient $\frac{(G \times H) + (I \times J)}{(A)}$ = 0.28 (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

Computational Sheet for Determining Run-on Discharges

Existing Site Conditions

Area Runoff Coefficient		=	0.28	(A)
Area Rainfall Intensity		=	10 yr / 24 hr	(B)
Drainage Area		=	8,900 Acres	(C)
Site Area Run-on Discharge	(A) x (B) x (C)	=	4,700 CFS*	(D)

*Run-on discharge based on 10-year rainfall event utilizing SCS unit hydrograph method for 8,900 acre area.

The total flow is dispersed between multiple channels and not a single point source of discharge.

Attachment F

Notice of Intent (NOI)

Attachment G

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

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**
TEMPORARY EROSION CONTROL BMPs		
EC-1, Scheduling	Monthly Pre, post and interim Storm events	■ Review project schedule. Amend to show updated information or changes from weather, contractors or progress.
EC-2, Preservation of Existing Vegetation	Monthly Pre, post and interim Storm events	■ Repair or replace damaged vegetation
EC-3, Hydraulic Mulch	Monthly Pre, post and interim Storm events	■ Reapply as necessary; spray from two different angles to minimize „shadowing"
EC-4, Hydroseed	Monthly Pre, post and interim Storm events	■ Reapply as necessary; observe for vegetation establishment. Multiple applications may be needed.
EC-5, Soil Binders	Monthly Pre, post and interim Storm events	■ Reapply as needed ■ Reapply prior to storm event
EC-7, Geotextiles and Mats	Monthly Pre, post and interim Storm events	■ Replace or repair as needed ■ Insure preparation of soil is adequate and stapling pattern is sufficient.
TEMPORARY SEDIMENT CONTROL BMPs		
SE-1, Silt Fence	Monthly Pre, post and interim Storm events	■ Repair or replace as needed ■ Repair and cleanout or replace prior to storm event
SE-4, Check Dam	Monthly Pre, post and interim Storm events	■ 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	Monthly Pre, post and interim Storm events	■ Repair or replace as needed ■ Repair, cleanout or replace prior to storm event
WIND EROSION CONTROL BMPs		
WE-1, Wind Erosion Control	Monthly Pre, post and interim Storm events	■ Check applicable areas to ensure proper coverage; reapply as needed
TRACKING CONTROL BMPs		
TR-1, Stabilized Construction Entrance/Exit	Monthly Pre, post and interim Storm events	■ Clean or replace or top dress as needed ■ Clean or replace prior to storm event

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**
TR-2, Stabilized Construction Roadway	Monthly Pre, post and interim Storm events	■ Clean, replace or top dress as needed
NON-STORM WATER MANAGEMENT BMPs		
NS-1, Water Conservation Practices	Monthly Pre, post and interim Storm events	■ Keep watering equipment in good condition
NS-6, Illicit Connection/ Discharge	Preconstruction, Monthly and Pre, post and interim storm events	■ Contain any material present ■ Remove and properly dispose of material
NS-9, Vehicle and Equipment Fueling NS-10, Vehicle and Equipment Maintenance	Monthly Pre, post and interim Storm events	■ 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	Monthly Pre, post and interim Storm events	■ 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	Monthly Pre, post and interim Storm events	■ Repair or replace storage area as needed ■ Keep containment area free of water and spills
WM-2, Material Use	Monthly Pre, post and interim Storm events	■ Spot check employees‟ material usage
WM-3, Stockpile Management	Monthly Pre, post and interim Storm events	■ Repair or replace as needed ■ Repair or replace prior to storm
WM-4, Spill Prevention and Control	Monthly Pre, post and interim Storm events	■ Verify spill cleanup materials are located near storage areas and delivery locations
WM-5, Solid Waste Management	Monthly Pre, post and interim Storm events	■ Remove waste when containers are full ■ Train employees on proper disposal of litter
WM-6, Hazardous Waste Management	Monthly Pre, post and interim Storm events	■ Regularly collect material for disposal and removal from site ■ Verify spill cleanup material is nearby and in stock
WM-8, Concrete Waste Management	Monthly Pre, post and interim Storm events	■ Replace concrete washout pits as needed ■ Dispose of waste 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**
WM-9, Sanitary/Septic Waste Management	Monthly Pre, post and interim Storm events	■ Pick up and dispose of sanitary waste spills promptly ■ Regularly maintain facility with certified contractor
WM-10, Liquid Waste Management	Monthly Pre, post and interim Storm events	■ Observe activity and presence of controls daily during activity ■ Repair BMPs as needed ■ Contain, remove and dispose of materials as needed

Attachment H

Storm Water Quality Construction Site Inspection Checklist

SWPPP Inspection Checklist
Lucerne Solar
WDID#:_____

Inspection Type (circle): Routine Pre Interim Post			Date: Time:	
No.	Inspection Question	Yes	No	Corrective action taken and date
1	Is tracking control properly installed, maintained, and effectively preventing tracking off site?			
2	Are sediment control BMPs properly installed and maintained?			
3	Are additional sediment control BMPs needed?			
4	Are 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?			
9	Are concrete washout pit properly installed, used, and maintained?			
10	Is SWPPP being continually updated?			

Comments:	

Inspector Signature, date		Contractor Signature, date	
Printed Name and Title		Printed Name and Title	
Storm Start:		Total Rainfall (in):	
Storm Finish:		Days since last rain:	

Attachment I

Trained Contractor Personnel Log

Storm Water Management Training Log

Project Name: Lucerne Solar

Project Number/Location: WDID No: Lucerne Valley, CA

Storm Water Management Topic: (check as appropriate)

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

Specific Training Objective: _____

Location: _____ Date: _____

Instructor: _____ Telephone: _____

Course Length (hours): _____

Attendee Roster (attach additional forms if necessary)

Name	Company	Phone

Name	Company	Phone

COMMENTS:

Summary of SWPPP Author - Training / Qualifications

Aaron Mlynek, CPESC (#3344)

Certifications/Degrees

- 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

Memberships

- International Erosion Control Association
- Minnesota Erosion Control Association

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.

Chevron Energy Solutions Company 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,

Raphael Varieras
Project Development Manager
Chevron Energy Solutions Company

SUBCONTRACTOR NOTIFICATION LOG

Project Name: Lucerne Solar

Project Number/Location: WDID #:

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

USE ADDITIONAL PAGES AS NECESSARY

Attachment K

Notice of Non-Compliance

To: Date:

Subject: Notice of Non-Compliance

Project Name: Lucerne Solar

Project Number/Location: WDID #: Lucerne Valley, CA

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 L

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

CONSTRUCTION PROJECT: Lucerne Solar

PREPARER: Aaron Mlynek, CPESC (#3344)

Project NO: 20081195 (Westwood Project #) WDID#:

SECTION A: STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

CHECK IF ADDRESSED N/A IF NOT APPLICABLE	SWPPP Section	ITEM	GENERAL PERMIT REF.	COMMENTS
	100	***SWPPP Certification and Approval***	***C.10***	
	100.1	SWPPP Certification	***C.10***	
	100.2	SWPPP Approval	***C.10***	
	200	***SWPPP Amendments***	***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	***Introduction/Project Description***		
	300.1	Project Description and Location (narrative)	***A.5.a.1***	
	300.2	Unique Site Features (narrative)	***A.5.a.1***	
	300.4	***Project Schedule (narrative and graphical)***	***A.5.c.5***	
	400	***References***	***A.14***	
	500.2	***Vicinity Map (narrative or graphic)***	***A.5.a.1***	

SECTION A: STORM WATER POLLUTION PREVENTION PLAN (SWPPP)				
CHECK IF ADDRESSED N/A IF NOT APPLICABLE	**SWPPP Section**	**ITEM**	**GENERAL PERMIT REF.**	**COMMENTS**
	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	***Water Pollution Control Drawings (WPCDs) (graphic or narrative)***	A.5.a.2	
	500.4	***Site perimeter***	***A.5.a.2***	
	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	***Pollutant Source and BMP Identification (narrate/ or indicate on site map)***	A.5.b	
		Drainage	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	***Storm Water Inlets***	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	
		Site History (narrative; if possible, indicate location(s) on the Water Pollution Control Drawings)	A.5.b	

SECTION A: STORM WATER POLLUTION PREVENTION PLAN (SWPPP)				
CHECK IF ADDRESSED N/A IF NOT APPLICABLE	**SWPPP Section**	**ITEM**	**GENERAL PERMIT REF.**	**COMMENTS**
	500.3.3	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	
		Location of Areas Designated for:	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.)		
		BMP Locations or Descriptions for:	A.5.b.5	
	500.3.9 & 500.4	Waste handling and disposal areas	A.5.b.5	
	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	

SECTION A: STORM WATER POLLUTION PREVENTION PLAN (SWPPP)				
CHECK IF ADDRESSED N/A IF NOT APPLICABLE	**SWPPP Section**	**ITEM**	**GENERAL PERMIT REF.**	**COMMENTS**
	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	
	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	

SECTION A: STORM WATER POLLUTION PREVENTION PLAN (SWPPP)				
CHECK IF ADDRESSED N/A IF NOT APPLICABLE	**SWPPP Section**	**ITEM**	**GENERAL PERMIT REF.**	**COMMENTS**
	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	
	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: Lucerne Solar

Project Number: WDID #:

Company Name: Chevron Energy Solutions Company

Address: 345 California Street, 18th Floor, San Francisco, CA 94104

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:

Work Now in Progress:

Work Planned for Next 12 Months:

"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

Attachment O

Notice of Termination

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

Attachment P

Sampling Activity Log

RAIN EVENT GENERAL INFORMATION				
Project Name	Lucerne Solar			
Project Number	WDID #:			
Contractor				
Sampler"s Name				
Signature				
Date of Sampling				
Season (Check Applicable)	❒ Rainy		❒ 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://cdec.water.ca.gov/weather.html or 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		
❑Yes	❑ No	
Sample Identification	**Test**	**Result**

Attachment Q

Pollutant Testing Guidance Table

Attachment Q
Pollutant Testing Guidance Table [1]

Category	Construction Site Material	Visually Observable?	Pollutant Indicators [2]	Suggested Analyses Field [3]	Laboratory
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)	pH Meter Acidity Test Kit	EPA 150.1 (pH) SM 2310B (Acidity) EPA 300.0 (Anion)
	Bleaches	No	Residual Chlorine	Chlorine	SM 4500-CL G (Res. Chlorine)
	Detergents	Yes - Foam	Visually Observable - No Testing Required		
	TSP	No	Phosphate	Phosphate	EPA 365.3 (Phosphate)
	Solvents	No	**VOC**	None	EPA 601/602 or EPA 624 (VOC)

Attachment Q
Pollutant Testing Guidance Table [1]

Category	Construction Site Material	Visually Observable?	Pollutant Indicators [2]	Suggested Analyses Field [3]	Laboratory
			SVOC	None	EPA 625 (SVOC)
Portland Concrete Cement & Masonry Products	Portland Cement (PCC)	Yes - Milky Liquid	Visually Observable - No Testing Required		
	Masonry products	No	**pH**	pH Meter Alkalinity or Acidity Test Kit	EPA 150.1 (pH)
			Alkalinity		SM 2320 (Alkalinity)
	Sealant (Methyl Methacrylate - MMA)	No	Methyl Methacrylate	None	EPA 625 (SVOC)
			Cobalt		EPA 200.8 (Metal)
			Zinc		
	Incinerator Bottom Ash Bottom Ash Steel Slag Foundry Sand Fly Ash Municipal Solid Waste	No	**Aluminum Calcium Vanadium Zinc**	Calcium Test	EPA 200.8 (Metal) EPA 200.7 (Calcium)
	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	pH Meter Alkalinity or Acidity Test Kit	SM 2310B (Acidity)
			Alkalinity		SM 2320 (Alkalinity)

Attachment Q
Pollutant Testing Guidance Table [1]

Category	Construction Site Material	Visually Observable?	Pollutant Indicators [2]	Suggested Analyses Field [3]	Laboratory
			pH		EPA 150.1 (pH)
			VOC		EPA 601/602 or EPA 624 (VOC)
			SVOC		EPA 625 (SVOC)
Landscaping and Other Products	Aluminum Sulfate	No	Aluminum	TDS Meter Sulfate	EPA 200.8 (Metal)
			TDS		EPA 160.1 (TDS)
			Sulfate		EPA 300.0 (Sulfate)
	Sulfur-Elemental	No	Sulfate	Sulfate	EPA 300.0 (Sulfate)
	Fertilizers-Inorganic [4]	No	Nitrate	Nitrate	EPA 300.0 (Nitrate)
			Phosphate	Phosphate	EPA 365.3 (Phosphate)
			Organic Nitrogen	None	EPA 351.3 (TKN)
			Potassium	None	EPA 200.8 (Metal)
	Fertilizers-Organic	No	TOC	Nitrate	EPA 415.1 (TOC)
			Nitrate		EPA 300.0 (Nitrate)
			Organic Nitrogen		EPA 351.3 (TKN)
			COD		EPA 410.4 (COD)

Attachment Q
Pollutant Testing Guidance Table [1]

Category	Construction Site Material	Visually Observable?	Pollutant Indicators [2]	Suggested Analyses Field [3]	Laboratory
	Natural Earth (Sand, Gravel, and Topsoil)	Yes - Cloudiness and turbidity	Visually Observable - No Testing Required		
	Herbicide	No	Herbicide	None	Check lab for specific herbicide or pesticide
	Pesticide		**Pesticide**		
	Lime		Alkalinity	pH Meter Alkalinity or Acidity Test Kit	SM 2320 (Alkalinity)
			pH		EPA 150.1 (pH)
Painting Products	Paint	Yes	Visually Observable - No Testing Required		
	Paint Strippers	No	VOC	None	EPA 601/602 or EPA 624 (VOC)
			SVOC	None	EPA 625 (SVOC)
	Resins	No	COD	None	EPA 410.4 (COD)
			SVOC		EPA 625 (SVOC)
	Sealants	No	COD	None	EPA 410.4 (COD)
	Solvents	No	COD	None	EPA 410.4 (COD)
			VOC		EPA 601/602 or EPA 624 (VOC)
			SVOC		EPA 625 (SVOC)

Attachment Q
Pollutant Testing Guidance Table [1]

Category	Construction Site Material	Visually Observable?	Pollutant Indicators [2]	Suggested Analyses Field [3]	Laboratory
	Lacquers, Varnish, Enamels, and Turpentine	No	COD	None	EPA 410.4 (COD)
			VOC		EPA 601/602 or EPA 624 (VOC)
			SVOC		EPA 625 (SVOC)
	Thinners	No	VOC	None	EPA 601/602 or EPA 624 (VOC)
			COD		EPA 410.4 (COD)
Portable Toilet Waste Products	Portable Toilet Waste	Yes	Visually Observable - No Testing Required		
Contaminated Soil [5]	Aerially Deposited Lead[3]	No	Lead	None	EPA 200.8 (Metal)
	Petroleum	Yes – Rainbow Surface Sheen and Odor	Visually Observable - No Testing Required		
	Other	No	Contaminant Specific	Contaminant Specific	Contaminant Specific
Line Flushing Products	Chlorinated Water	No	Total chlorine	Chlorine	SM 4500-CL G (Res. Chlorine)
Adhesives	Adhesives	No	COD	None	EPA 410.4 (COD)
			Phenols	Phenol	EPA 420.1 (Phenol)
			SVOC	None	EPA 625 (SVOC)

Attachment Q
Pollutant Testing Guidance Table [1]

Category	Construction Site Material	Visually Observable?	Pollutant Indicators [2]	Suggested Analyses Field [3]	Laboratory
Dust Palliative Products	Salts (Magnesium Chloride, Calcium Chloride, and Natural Brines)	No	Chloride	Chloride	EPA 300.0 (Chloride)
			TDS	TDS Meter	EPA 160.1 (TDS)
			Cations (Sodium, Magnesium, Calcium)	None	EPA 200.7 (Cations)
Vehicle	Antifreeze and Other Vehicle Fluids	Yes - Colored Liquid	Visually Observable - No Testing Required		
	Batteries	No	Sulfuric Acid	None	EPA 300.0 (Sulfate)
			Lead	None	EPA 200.8 (Metal)
			pH	pH Meter Alkalinity or Acidity Test Kit	EPA 150.1 (pH)
	Fuels, Oils, Lubricants	Yes - Rainbow Surface Sheen and Odor	Visually Observable - No Testing Required		
Soil Amendment/Stabilization Products	Polymer/Copolymer [6, 7]	No	Organic Nitrogen	None	EPA 351.3 (TKN)
			BOD	None	EPA 405.1 (BOD)
			COD	None	EPA 410.4 (COD)
			DOC	None	EPA 415.1 (DOC)
			Nitrate	Nitrate	EPA 300.0 (Nitrate)
			Sulfate	Sulfate	EPA 300.0 (Sulfate)
			Nickel	None	EPA 200.8 (Metal)
	Straw/Mulch	Yes - Solids	Visually Observable - No Testing Required		

Attachment Q
Pollutant Testing Guidance Table [1]

Category	Construction Site Material	Visually Observable?	Pollutant Indicators [2]	Suggested Analyses Field [3]	Laboratory
	Lignin Sulfonate	No	Alkalinity	Alkalinity	SM 2320 (Alkalinity)
			TDS	TDS Meter	EPA 160.1 (TDS)
	Psyllium	No	COD	None	EPA 410.4 (COD)
			TOC		EPA 415.1 (TOC)
	Guar/Plant Gums	No	COD	None	EPA 410.4 (COD)
			TOC		EPA 415.1 (TOC)
			Nickel		EPA 200.8 (Metal)
	Gypsum	No	pH	pH Meter Alkalinity or Acidity Test Kit	EPA 150.1 (pH)
			Calcium	Calcium	EPA 200.7 (Calcium)
			Sulfate	Sulfate	EPA 300.0 (Sulfate)
			Aluminum	None	EPA 200.8 (Metal)
			Barium		
			Manganese		
			Vanadium		
Treated Wood Products	Ammoniacal-Copper-Zinc-Arsenate (ACZA) Copper-Chromium-Arsenic (CCA)	No	Arsenic	Total Chromium	EPA 200.8 (Metal)
			Total Chromium		
			Copper		

Attachment Q
Pollutant Testing Guidance Table [1]

Category	Construction Site Material	Visually Observable?	Pollutant Indicators [2]	Suggested Analyses Field [3]	Laboratory
	Ammoniacal-Copper-Arsenate (ACA) Copper Naphthenate		Zinc		
	Creosote	Yes - Rainbow Surface or Brown Suspension	Visually Observable - No Testing Required		

Notes:

1. 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.ysi.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™.

Attachment R

Discharge Reporting Log

Project Name: Lucerne Solar

Project Number: WDID #

Date	Material(s) Discharged	Estimated Quantity	Observed By

Attachment S

Emergency Contact List

Owner
Chevron Energy Solutions Company, A
Division of Chevron USA, Inc
345 California Street, 18th Floor
San Francisco, California 94104
Raphael Varieras
415-733-4735

Certified Laboratory
Lab Name
Street address
City, state, zip
Contact person
Phone number

Contractor
Contractor Name
Street address
City, state, zip
Contact person
Phone number

SWPPP Preparer
Westwood Profession Services, Inc.
7699 Anagram Drive
Eden Prairie, Minnesota 55431
Aaron Mlynek, CPESC
952-697-5710

SWPPM
Contractor Name
Street address
City, state, zip
Contact person
Phone number

Project Engineer
Westwood Profession Services, Inc.
7699 Anagram Drive
Eden Prairie, Minnesota 55431
Chris Carda, PE
952-906-7459

This page intentionally left blank