PRELIMINARY
WATER QUALITY MANAGEMENT PLAN
(WQMP)

For compliance with State Water Resources Control Board

General Construction Permit No. 2009-0009-DWQ

WDID No. (TBD)

for

Hesperia West 1 and 2 Solar PV Project
APN 0405-372-40

Prepared for:

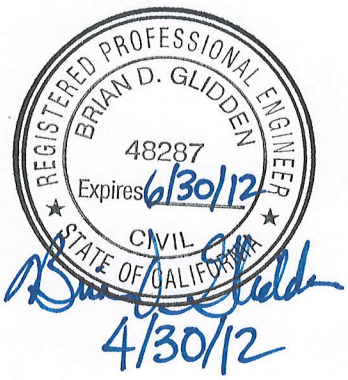
Christine Dutta
Sycamore Physicians Partners, LLC
20 Acres at the Northeast Corner of the intersection
of Fuente Avenue and El Centrol Road
Phone 303-881-1004

Prepared by:

Arrow Engineering Services, Inc.
42140 Tenth Street West
Lancaster, California
661-949-2525 (12-6148)

WQMP Preparation Date

May 2012



WATER QUALITY MANAGEMENT PLAN (WQMP)

PROJECT SITE INFORMATION

Name of Project: Hesperia West 1 and 2 Solar PV Project

Project Location: NE corner of intersection of Fuente Avenue and El Centro Road

Size of Significant Re-Development on an Already Developed Site (in feet^2): ZERO

Size of New Development (in feet^2): 871,200 SQ FT 20 ACRES

Number of Home Subdivisions: ZERO

SIC Codes: 4911

Erosive Site Conditions?: NO

Natural Slope More Than 25%?: NO

WATER QUALITY MANAGEMENT PLAN
Determination of Project Category

Check the appropriate project category below:

Check Below	Category
	1. New development and/or redevelopment of any commercial or industrial property that creates, adds and/or replaces 100,000 square feet or more of impervious surface. Redevelopment is any land-disturbing activity that results in the creation, addition or replacement of exterior impervious surface area on a previously developed site
	2. New development and/or redevelopment of Automotive repair shops (with SIC codes 5013, 5014, 5541, 7532 - 7534, 7536 - 7539) that creates, adds and/or replaces 5,000 square feet or more of impervious surface.
	3. New development and/or redevelopment of a Retail Gasoline Outlet (RGOs) that creates, adds and/or replaces 5,000 square feet or more of impervious surface.
	4. New development and/or redevelopment of a Restaurant that creates and/or replaces 5,000 square feet or more of impervious surface
	5. New development and/or redevelopment of an uncovered parking lot that creates, adds and/or replaces 5,000 square feet or more of impervious surface, or provides 25 parking spaces exposed to storm water runoff. Parking lot is defined as land area or facility for the temporary storage of motor vehicles.
	6. New development and/or redevelopment of a Single Family Hillside residences.
	7. New development and/or redevelopment project that creates a home subdivision comprised of 10 or more housing units. This category includes developments on public or private land that fall under the planning and building authority of the County.
X	8. The project does not fall into any of the categories described above. It is therefore defined as a Non-Category Project. **NOTE:** *Emergency public safety projects in any of the above-listed categories shall be excluded from the WQMP requirement, if the delay caused due to the WQMP requirement compromises public safety, public health, and / or environmental protection.*

Section 1
Introduction and Project Description

1.1 Project Information

- Name of project owner. Christine Dutta
- Address of project owner. 6116 Case Rd.
  North Ridgeville, OH 44039

  Telephone for project owner. 303-881-1004
- Project site address. NE corner of intersection of Fuentes Avenue and El Centro Road.

1.2 Permits

- The proposed project will be subject to San Bernardino County ordinances requiring approved permits for the improvement of the site. It is anticipated that a Conditional Use Permit (CUP) application will be filed. Upon approval of the CUP, the developer will prepare construction plans for development of the site. Permits anticipated to be required include, but are not limited to, grading permit, dust control plan, electrical permit, building permit (structures), and encroachment permit (drive access).

1.3 Project Description

Hesperia West 1 and 2 is a Photovoltaic (PV) electrical generation facility proposed to be constructed on an 20 acre parcel at the NE corner of Fuente Avenue at El Centro Road in unincorporated San Bernardino County area southwest of Hesperia. The site is currently vacant and is zoned OH/RL (Oak Hills/Rural Living). Adjacent parcels to the east and west are vacant. Adjacent parcels to the north and south consist of single family home sites of 2 acres or more in size.

The project proposes to use fixed-tilt, ground mounted PV arrays for electrical generation. Electrical facilities are proposed to be interconnected with a Southern California Edison (SCE) substation. SCE shall make a preliminary determination of the required interconnection facilities and distribution of the required interconnection facilities and distribution system upgrades and any other modifications or additions that would be needed. This System Impact Study Agreement (SIS) was signed on February 2, 2012, and is expected to be completed in about 4 months.

1.4 Site Description

- The project site is presently vacant and is fairly uniformly sloped down to the northeast of an average rate of approximately 2%. The parcel is rectangular in shape with the east/west direction dimension being approximately twice the north/south dimension. The site contains native shrubs and grasses. The surficial soils appear to be a silty, fine to coarse, medium brown sand indicative of the desert area. Current site drainage appears to be sheet flow with one very shallow drainage feature crossing the mid-point of the site in a

north east direction. All four roads surrounding the site are unimproved. Fuente Avenue, on the west side of the site, appears to carry the major portion of upstream storm flows. A much smaller tributary area of storm flows arriving south of El Centro Road appears to slowly sheet flow across El Centro Road with some water being naturally diverted easterly along El Centro Road. The site is located within the Hesperia Master Plan of Drainage (HMPD). The HMPD shows a planned drainage facility with a north/south alignment in the middle of the parcel. This facility is identified as H-06 and is described as an open trapezoidal earthen channel approximately 7 feet deep, a 12 foot wide bottom and 3:1 side slopes. Approximate right-of-way width for this facility is 94 feet.

This H-06 drainage is planned to empty to a planned drainage basin along the California Aqueduct north of Mesquite Road. These drainage flows that do not percolate into the soil or evaporate will eventually empty into the Mojave River. This site is also subject to a local Storm Water Management Plan (SWMP) covering the Mojave River Watershed.

The Flood Zone for this site is designated as Flood Zone D (not a special flood hazard zone) as indicated on FIRM 06071C6490H. This particular map was not available to be viewed, however, the map index indicated the unincorporated areas were Flood Zone D. Flood Zone D is described as areas where the flood hazards are "undetermined, but possible".

Section 2
Pollutants of concern

2.1 Pollutants of Concern (NOT REQUIRED FOR NON-CATEGORY PROJECTS)

SECTION 3
BEST MANAGEMENT PRACTICE SELECTION PROCESS

3.1 SITE DESIGN BMPS

1. Minimize Stormwater Runoff, Minimize Project's Impervious Footprint, and Conserve Natural Areas

Maximize the permeable area. This can be achieved in various ways, including but not limited to, increasing building density (number of stories above or below ground) and developing land use regulations seeking to limit impervious surfaces.

Yes **X**	No	

Fixed angle solar photo voltaic panels will be supported above grade for ease of maintenance. A light steel panel support structure will be fixed to individual concrete footings into native soil. Little to no grading is planned. Concrete impervious surfaces are not planned except for the electrical inverter transformer on site. Access roads shall be constructed of crush rock for light duty maintenance vehicles. Crushed rock will be used in areas around the inverter transformer and in any other areas subject to erosion.

Runoff from developed areas may be reduced by using alternative materials or surfaces with a lower Coefficient of Runoff, or "C-Factor".

Yes	No **X**	

No areas will be developed in the strict sense of the word. No impervious materials will be used on the site except for the small inverter transformer pad and any other electrical equipment pad. After construction the finished surface will be native soil or crushed rock.

Conserve natural areas. This can be achieved by concentrating or clustering development on the least environmentally sensitive portions of a site while leaving the remaining land in a natural, undisturbed condition.

Yes **X**	No	

Areas not consumed by the solar panels, electrical equipment pads and access roads will be left as native soil in the present condition or graded to improve and control surface drainage.

Construct walkways, trails, patios, overflow parking lots, alleys, driveways, low-traffic streets, and other low-traffic areas with open-jointed paving materials or permeable surfaces, such as pervious concrete, porous asphalt, unit pavers, and granular materials.

Yes **X**	No	

Low traffic areas, such as the proposed on site access roads will be made from permeable crushed rock.

Construct streets, sidewalks, and parking lot aisles to the minimum widths necessary, provided that public safety and a pedestrian friendly environment are not compromised[1]. Incorporate landscaped buffer areas between sidewalks and streets.		
Yes **X**	No	
The access roads are for on site maintenance purposes. There are no off site streets that will be proposed to be improved. No pedestrian sidewalks are proposed.		
Reduce widths of street where off-street parking is available[2].		
Yes	No **X**	
This item does not apply to this project.		
Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs.		
Yes	No **X**	
There are existing Juniper and Joshua trees in this desert location. Existing shrubs and grasses will naturally grow back after construction because most of the site will have as its finished grade the native soil. Shrubs will be trimmed only for maximum sun exposure to the solar panels.		

[1] Sidewalk widths must still comply with Americans with Disabilities Act regulations and other life safety requirements.

[2] However, street widths must still comply with life safety requirements for fire and emergency vehicle access.

Other comparable site design options that are equally effective.		
Describe actions taken _or justification/alternative: NONE		
Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design.		
Yes **X**	No	
There will be no decorative concrete used.		
Use natural drainage systems.		
Yes **X**	No	
The drainage of the existing surface will be utilized to the maximum extent. Minimum grading is proposed. The existing site drains by surface sheet flows. The completed site will drain the same way.		
Where soils conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration[3].		
Yes	No **X**	
At this preliminary stage these measures may not be necessary. However, if the completed design of the site would benefit from these measures, they could be easily utilized and incorporated.		
Construct onsite ponding areas, rain gardens, or retention facilities to increase opportunities for infiltration, while being cognizant of the need to prevent the development of vector breeding areas.		
Yes	No **X**	
At this preliminary stage, these measures are not proposed. However, if the completed design of the site would benefit from these measures, they could be easily utilized and incorporated.		

[3]However, projects must still comply with hillside grading ordinances that limit or restrict infiltration of runoff. Infiltration areas may be subject to regulation as Class V injection wells and may require a report to the USEPA. Consult the Agency for more information on use of this type of facility.

2. Minimize Directly Connected Impervious Areas

Where landscaping is proposed, drain rooftops into adjacent landscaping prior to discharging to the storm drain.

Yes	No **X**	

No roof tops are proposed

Where landscaping is proposed, drain impervious sidewalks, walkways, trails, and patios into adjacent landscaping.

Yes	No **X**	

The only landscaping proposed is for areas surrounding the site to provide aesthetically pleasing appearance to the area. These minimally vegetated landscaped areas will use drought tolerant plants. Localized drainage wells around the plant areas will be proposed. No impervious areas in the landscaped region will be provided.

Increase the use of vegetated drainage swales in lieu of underground piping or imperviously lined swales.

Yes	No **X**	

No underground piping is proposed. No concrete or imperviously lined swales are proposed. Crushed rock swales may be utilized near downstream sides of the site to encourage continued sheet flow off the site.

Use one or more of the following:

Yes	**No**	**Design Feature**
X		Rural swale system: street sheet flows to vegetated swale or gravel shoulder, curbs at street corners, culverts under driveways and street crossings
	X	Urban curb/swale system; street slopes to curb; periodic swale inlets drain to vegetated swale/bio filter.
	X	Dual drainage system: First flush captured in street catch basins and discharged to adjacent vegetated swale or gravel shoulder, high flows connect directly to municipal storm drain systems.
	X	Other comparable design concepts that are equally effective.

Crushed rock will be used anywhere erosion could possibly occur on the site.

Use one or more of the following features for design of driveways and private residential parking areas:

Yes	No	Design Feature
X		• Design driveways with shared access, flared (single lane at street) or wheel strips (paving only under tires); or, drain into landscaping prior to discharging to the municipal storm drain system.
	X	• Uncovered temporary or guest parking on private residential lots may be paved with a permeable surface; or designed to drain into landscaping prior to discharging to the municipal storm drain system.
	X	• Other comparable design concepts that are equally effective.

No private parking areas are proposed. Site location is remote and adjacent properties are not in development at this time. One driveway will serve the site alone. Drive will mostly be located in the right-of-way and be designed to drain to the right-of-way. Once onsite the drive will consist of native soil or crushed rock and vehicles will be directed to the onsite access roads. A native soil or crushed rock access road for maintenance of the solar panels will connect to the driveway at the right-of-way.

Use one or more of the following design concepts for the design of parking areas:

Yes	No	Design Feature
	X	Where landscaping is proposed in parking areas, incorporate landscape areas into the drainage design.
	X	Overflow parking (parking stalls provided in excess of the Agency's minimum parking requirements) may be constructed with permeable paving.
	X	Other comparable design concepts that are equally effective

No parking areas are proposed

3.2 Source Control BMPs

PROJECT IS A NON-CATEGORY PROJECT	Source Control BMPs																								
	Education of Property Owners	*Activity Restrictions*	*Spill Contingency Plan*	*Employee Training/Education Program*	*Street Sweeping Private Street and Parking Lots*	*Common Areas Catch Basin Inspection*	*Landscape Planning (SD-10)*	*Hillside Landscaping*	*Roof Runoff Controls (SD-11)*	*Efficient Irrigation (SD-12)*	*Protect Slopes and Channels*	*Storm Drain Signage (SD-13)*	*Inlet Trash Racks*	*Energy Dissipaters*	*Trash Storage Areas (SD-32) and Litter Control*	*Fueling Areas (SD-30)*	*Air/Water Supply Area Drainage*	*Maintenance Bays and Docks (SD-31)*	*Vehicle Washing Areas (SD-33)*	*Outdoor Material Storage Areas (SD-34)*	*Outdoor Work Areas (SD-35)*	*Outdoor Processing Areas (SD-36)*	*Wash Water Controls for Food Preparation Areas*	*Pervious Pavement (SD-20)*	*Alternative Building Materials (SD-21)*
Significant Re-development																									
Home subdivisions of 10 or more units																									
Commercial/ Industrial Development >100,000 ft^2																									
Automotive Repair Shop																									
Restaurants																									
Hillside Development >10,000 ft^2																									
Development of impervious surface >2,500 ft^2																									
NON CATEGORY PROJECT	**X**	**X**		**X**																	**X**			**X**	

* Provide justification of each Source Control BMP that will not be incorporated in the project WQMP, or explanation of proposed equally effective alternatives in the following table.

Justification for Source Control BMPs not incorporated into the project WQMP			
Source Control BMP	Used in Project (yes/no)?	Justification/Alternative*	Implementation Description
Education of Property Owners	Yes	Agreement	Recorded
Activity Restrictions	Yes	no maintenance activity during rain storms	Maintenance manual
Spill Contingency Plan	No	No such material present	
Employee Training/Education Program	Yes	Clean PV cells for electrical generation	No maintenance during rain storms
Street Sweeping Private Street and Parking Lots	No	Streets are unimproved	
Common Areas Catch Basin Inspection	No	No catch basins proposed	
Landscape Planning (SD-10)	No	None planned	
Hillside Landscaping	No	None planned	
Roof Runoff Controls (SD-11)	No	None planned	Maintain crushed rock around equipment pad
Efficient Irrigation (SD-12)	No	None planned	
Protect Slopes and Channels	No	None planned	
Storm Drain Signage (SD-13)	No	No storm drain planned	
Inlet Trash Racks	No	None planned	
Energy Dissipaters	No	None planned	
Trash Storage Areas (SD-32) and Litter Control	No	None planned	
Fueling Areas (SD-30)	No	None planned	
Air/Water Supply Area Drainage	No	None Planned	
Maintenance Bays and Docks (SD-31)	No	None Planned	
Vehicle Washing Areas (SD-33)	No	None Planned	
Outdoor Material Storage Areas (SD-34)	No	None Planned	
Outdoor Work Areas (SD-35)	Yes	Open areas encourage electrical generation	Electrical connections are weather proof
Outdoor Processing Areas (SD-36)	No	None planned	
Wash Water Controls for Food Preparation Areas	No	None Planned	
Pervious Pavement (SD-20)	Yes	Inspect roads for damage after rain	Re-grade access roads and crush rock where needed
Alternative Building Materials (SD-21)	No	No buildings planned	
*Attach additional sheets if necessary for justification.			

4.1 TREATMENT CONTROL BMPS (NOT REQUIRED FOR NON-CATEGORY PROJECTS)

SECTION 4
Operation and Maintenance

4.1.1 Operations and Maintenance

BMP	O & M Requirements	Start-Up Dates	O & M Frequency	Parties Responsible	Inspection & Record Keeping	Water Quality Monitoring
Native soil or crushed rock used for access roads	Remove trash and debris along with sediment accumulation. Inspect for ponding water	Upon Completion of Project	Semi-Annual, and after rain event	Owner	Owner	None
Crushed rock around equipment pad areas	Remove trash and debris along with sediment accumulation. Inspect for ponding water	Upon Completion of Project	Semi-Annual, and after rain event	Owner	Owner	None

Details to be included with the Final WQMP

SECTION 5
FUNDING

5.1 Funding

The funding source for the operations and maintenance of the proposed facility will be provided by the owners:

Christine Dutta
6116 Case Road
North Ridgeville, OH 44039
303-881-1004

SECTION 6
WQMP Certification

6.1 Certification

"This Water Quality Management Plan has been prepared for Hesperia West 1 and 2 by Arrow Engineering. It is intended to comply with the County of San Bernardino requirements for Conditional Use Permit No.: _____, Condition Number(s) _____ requiring the preparation of a Water Quality Management Plan (WQMP). The undersigned is aware that Best Management Practices (BMPs) are enforceable pursuant to the County's Water Quality Ordinance No. 3587. The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan and will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with General Construction Permit and the intent of the water quality regulations applicable to San Bernardino County areas within the Mojave River Basin region. Once the undersigned transfers its interest in the property, its successors in interest and the city/county shall be notified of the transfer. The new owner will be informed of its responsibility under this WQMP. A copy of the current approved WQMP shall be available on the subject site in perpetuity.

"I certify under a penalty of law that the provisions (implementation, operation, maintenance, and funding) of the WQMP have been accepted and that the plan will be transferred to future successors."

_____ _____
Applicant's Signature Date

_____ _____
Applicant's Name Applicant's Telephone Number

Attachment A-2

INSTRUCTIONS FOR COMPLETING THE
WATER QUALITY MANAGEMENT PLAN (WQMP)
TRANSFER, ACCESS, AND MAINTENANCE AGREEMENT

1. In order for your project to receive approval, you will need to prepare a Water Quality Management Plan (WQMP) Transfer, Access and Maintenance Agreement (sample provided). This agreement should follow the format provided, and include the following information and attachments:

   - Completion of the document including signature(s)
   - Wet seal notarizing the document
   - Exhibit "B" an 8.5" x 11" or 8.5" x 14" detail BMP site map of the project illustrate the BMP features and maintenance/access points. Include cross section and detail of the onsite BMP's

2. A draft of the agreement should be submitted for review to:

   Department of Public Works
   Environmental Management Division
   825 E. Third Street, Room 201
   San Bernardino, CA 92415-0835
   Phone: (909) 387-8109

3. Staff at the Environmental Management Division will review the draft Agreement to make sure it is complete, and will request any necessary changes.

4. When the draft has been cleared, the property owner must sign the Agreement and have his/her signature notarized.

5. The Agreement will then be returned to the Environmental Management Division, who will obtain the notarized signature of the Director of Public Works (this may take up to a week, depending on the Director's schedule and availability of the Notary). When ready, the Agreement can be mailed or picked-up in person.

6. The fully executed Agreement must now be recorded at the San Bernardino County Recorder's Offices at:

   222 W. Hospitality Lane (behind the Souplantation restaurant)
   San Bernardino, CA 92415-0018
   Phone: (909) 387-8322

7. A photocopy of the final recorded Agreement should be returned to the Environmental Management Division. You will need to show the recorded

agreement to the Land Development Division of the Department of Public Works in order to receive their sign-off on your project.

RECORDING REQUESTED BY:

COUNTY OF SAN BERNARDINO

AND WHEN RECORDED MAIL TO:

County of San Bernardino
Public Works Department
825 E. Third Street
San Bernardino, CA 92415

SPACE ABOVE THIS LINE FOR RECORDER'S USE

AGREEMENT

THIS PAGE ADDED TO PROVIDE ADEQUATE SPACE FOR RECORDING INFORMATION (Additional Recording Fees Apply)

Water Quality Management Plan and Stormwater Best Management Practices Transfer, Access and Maintenance Agreement

OWNER NAME: _____

PROPERTY ADDRESS: _____

_____

APN: _____

THIS AGREEMENT is made and entered into in

_____ ,California, this _____ day of

_____ , by and between

_____ , herein after

referred to as Owner and the COUNTY OF SAN BERNARDINO, a municipal corporation, located in the County of San Bernardino, State of California hereinafter referred to as County;

WHEREAS, the Owner owns real property ("Property") in the County of San Bernardino,, State of California, more specifically described in Exhibit "A" and depicted in Exhibit "B", each of which exhibits is attached hereto and incorporated herein by this reference;

WHEREAS, at the time of initial approval of development project known as

_____ within the Property described herein, the County required the project to employ Best Management Practices, hereinafter referred to as "BMPs," to minimize pollutants in urban runoff;

WHEREAS, the Owner has chosen to install and/or implement BMPs as described in the Water Quality Management Plan, on file with the County, hereinafter referred to as "WQMP", to minimize pollutants in urban runoff and to minimize other adverse impacts of urban runoff;

WHEREAS, said WQMP has been certified by the Owner and reviewed and approved by the County;

WHEREAS, the Owner is aware that periodic and continuous maintenance, including, but not necessarily limited to, filter material replacement and sediment removal, is required to assure peak performance of all BMPs in the WQMP and that, furthermore, such maintenance activity will require compliance with all Local, State, or Federal laws and regulations, including those pertaining to confined space and waste disposal methods, in effect at the time such maintenance occurs;

NOW THEREFORE, it is mutually stipulated and agreed as follows:

1. All maintenance or replacement of BMPs proposed as part of the WQMP are the sole responsibility of the Owner in accordance with the terms of this Agreement.

2. Owner hereby provides the County of San Bernardino's designee complete access, of any duration, to the BMPs and their immediate vicinity at any time, upon reasonable notice, or in the event of emergency, as determined by the Public Works Director, no advance notice, for the purpose of inspection, sampling, testing of the Device, and in case of emergency, to undertake all necessary repairs or other preventative measures at owner's expense as provided in paragraph 3 below. The County shall make every effort at all times to minimize or avoid interference with Owner's use of the Property. Denial of access to any premises or facility that contains WQMP features is a violation of the County Stormwater Ordinance, County Code 3587. If there is reasonable cause to believe that an illicit discharge or breach of the WQMP operation and maintenance commitments is occurring on the premises then the authorized enforcement agency may seek issuance of a search warrant from any court of competent jurisdiction in addition to other enforcement actions.

3. Owner shall use its best efforts diligently to maintain all BMPs in a manner assuring peak performance at all times. All reasonable precautions shall be exercised by Owner and Owner's representative or contractor in the removal and extraction of any material(s) from the BMPs and the ultimate disposal of the material(s) in a manner consistent with all relevant laws and regulations in effect at the time. As may be requested from time to time by the County, the Owner shall provide the County with documentation identifying the material(s) removed, the quantity, and disposal destination.

4. In the event Owner, or its successors or assigns, fails to accomplish the necessary maintenance contemplated by this Agreement, within five (5) days of being given written notice by the County , the County is hereby authorized to cause any maintenance necessary to be done and charge the entire cost and expense against the property and/or to the Owner or Owner's successors or assigns,

including administrative costs, attorneys fees and interest thereon at the maximum rate authorized by the County Code from the date of the notice of expense until paid in full.

5. The County may require the owner to post security in form and for a time period satisfactory to the County to guarantee the performance of the obligations stated herein. Should the Owner fail to perform the obligations under the Agreement, the County may, in the case of a cash bond, act for the Owner using the proceeds from it, or in the case of a surety bond, require the sureties to perform the obligations of the Agreement. As an additional remedy, the Public Works Director may withdraw any previous stormwater-related approval with respect to the property on which BMPs have been installed and/or implemented until such time as Owner repays to County its reasonable costs incurred in accordance with paragraph 3 above.

6. This agreement shall be recorded in the Office of the Recorder of San Bernardino County, California, at the expense of the Owner and shall constitute notice to all successors and assigns of the title to said Property of the obligation herein set forth, and also a lien in such amount as will fully reimburse the County, including interest as herein above set forth, subject to foreclosure in event of default in payment.

7. In event of legal action occasioned by any default or action of the Owner, or its successors or assigns, then the Owner and its successors or assigns agree(s) to hold the County harmless and pay all costs incurred by the County in enforcing the terms of this Agreement, including reasonable attorney's fees and costs, and that the same shall become a part of the lien against said Property.

8. It is the intent of the parties hereto that burdens and benefits herein undertaken shall constitute covenants that run with said Property and constitute a lien there against.

9. The obligations herein undertaken shall be binding upon the heirs, successors, executors, administrators and assigns of the parties hereto. The term "Owner" shall include not only the present Owner, but also its heirs, successors, executors, administrators, and assigns. Owner shall notify any successor to title of all or part of the Property about the existence of this Agreement. Owner shall provide such notice prior to such successor obtaining an interest in all or part of the Property. Owner shall provide a copy of such notice to the County at the same time such notice is provided to the successor.

10. Time is of the essence in the performance of this Agreement.

11. Any notice to a party required or called for in this Agreement shall be served in person, or by deposit in the U.S. Mail, first class postage prepaid, to the address

set forth below. Notice(s) shall be deemed effective upon receipt, or seventy-two (72) hours after deposit in the U.S. Mail, whichever is earlier. A party may change a notice address only by providing written notice thereof to the other party.

12. The Owner its successors and assigns, hereby agrees to save and hold harmless the County, any of its departments, agencies, officers or employees, all of whom while working within their respective authority, from all cost, injury and damage incurred by any of the above, and from any other injury or damage to any person or property whatsoever, any of which is caused by an activity, condition or event arising out of the performance, preparation for performance or nonperformance of any provision of this agreement by the Owner, its agents, or any of its independent contractors.

IF TO COUNTY : **IF TO OWNER:**

_____ _____

_____ _____

_____ _____

_____ _____

IN WITNESS THEREOF, the parties hereto have affixed their signatures as of the date first written above.

OWNER:

_____
Name

_____
Title

OWNER:

_____
Name

_____
Title

NOTARIES ON FOLLOWING PAGE

A notary acknowledgement is required for recordation (attach appropriate acknowledgement).

ACCEPTED BY:

Public Works Director

Date: _____

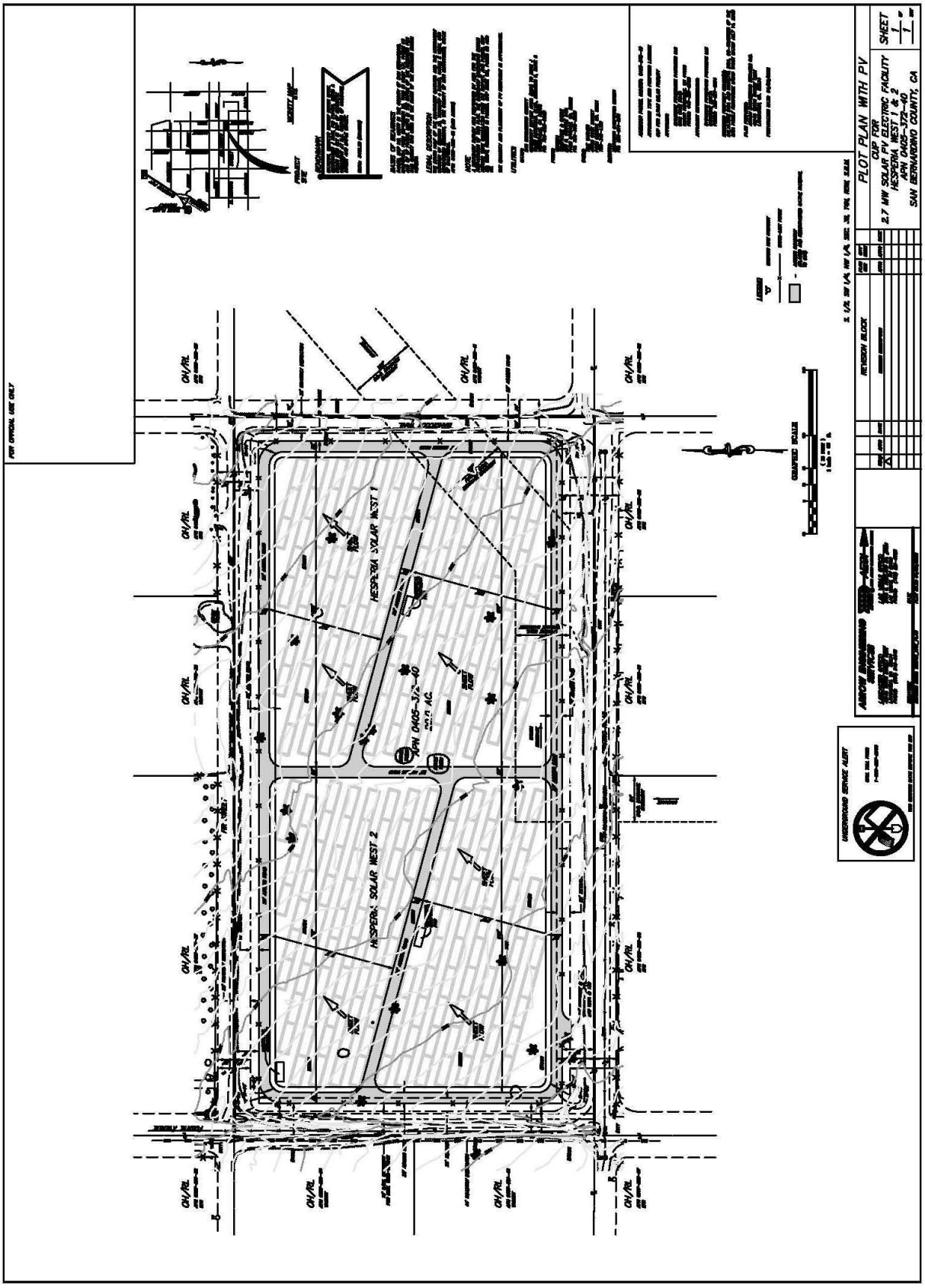
Attachment: Standard Notary Acknowledgement

EXHIBIT A
(Legal Description)

Land situated in the County of San Bernardino, State of California and described as **follows:**

The South one-half of the Southwest one-quarter of the Northwest one-quarter of Section 36, Township 4 North, Range 5 west, San Bernardino Meridian, containing 20 acres.

EXHIBIT B


PLOT PLAN WITH PV
CUP FOR
2.7 MW SOLAR PV ELECTRIC FACILITY
HESPERIA WEST 1 & 2
APN 0405-372-40
SAN BERNARDINO COUNTY, CA
SHEET
1
HESPERIA SOLAR WEST 1
HESPERIA SOLAR WEST 2
APN 0405-372-40
20.0 AC.
OH/RL

Attachment C
Pollutants of Concern

Pollutants of Concern

- *Bacteria / Viruses (Pathogens)* – Bacteria and Viruses are ubiquitous microorganisms that thrive under certain environmental conditions. Their proliferation is typically cause by the transport of animal or human fecal wastes from the watershed. Water, containing excessive bacteria and viruses, can alter the aquatic habitat and create a harmful environment for humans and aquatic life. Also, the decomposition of excess organic waste causes increased growth of undesirable organisms in the water.

- *Metals* – The primary source of metal pollution in stormwater is typically commercially available metals and metal products. Metals of concern include cadmium, chromium, copper, lead, mercury, and zinc. Lead and chromium have been used as corrosion inhibitors in primer coatings and cooling tower systems. Metals are also raw material components in non-metal products such as fuels, adhesives, paints, and other coatings. At low concentrations naturally occurring in soil, metals may not be toxic. However, at higher concentrations, certain metals can be toxic to aquatic life. Humans can be impacted from contaminated groundwater resources, and bioaccumulation of metals in fish and shellfish. Environmental concerns, regarding the potential for release of metals to the environment, have already led to restricted metal usage in certain applications (OC 2003).

- *Nutrients* – Nutrients are inorganic substances, such as nitrogen and phosphorus. Excessive discharge of nutrients to water bodies and streams causes eutrophication, where aquatic plants and algae growth can lead to excessive decay of organic matter in the water body, loss of oxygen in the water, release of toxins in sediment, and the eventual death of aquatic organisms. Primary sources of nutrients in urban runoff are fertilizers and eroded soils.

- *Noxious Aquatic Plants* – Noxious aquatic plants are invasive plants; with respect to a particular ecosystem that is not found in the ecosystem and whose presence in the environment causes economic or environmental harm or harm to human health.

- *Pesticides* -- Pesticides (including herbicides) are chemical compounds commonly used to control nuisance growth or prevalence of organisms. Relatively low levels of the active component of pesticides can result in conditions of aquatic toxicity. Excessive or improper application of a pesticide may result in runoff containing toxic levels of its active ingredient (OC 2003).

- *Polychlorinated Bi-Phenyls (PCB)* - PCB are synthetic chemicals that were manufactured for use in various industrial and commercial applications - including oil in electrical and hydraulic equipment, and plasticizers in paints, plastics and rubber products - because of their non-flammability, chemical stability, high boiling point and electrical insulation properties. When released into the environment, PCBs do not easily break apart. Instead, they persist for many years, bioaccumulate and bioconcentrate in organisms. The EPA has classified PCBs as probable human carcinogens. Long-term effects of PCB exposure include harm to the nervous and reproductive system, immune system suppression, hormone disruption and skin and eye irritation.

- *Organic Compounds* – Organic compounds are carbon-based. Commercially available or naturally occurring organic compounds are found in pesticides, solvents, and hydrocarbons. Organic compounds can, at certain concentrations, indirectly or directly constitute a hazard to life or health. When rinsing off objects, toxic levels of solvents and cleaning compounds

can be discharged to storm drains. Dirt, grease, and grime retained in the cleaning fluid or rinse water may also adsorb levels of organic compounds that are harmful or hazardous to aquatic life (OC 2003).

- *Sediments* – Sediments are solid materials that are eroded from the land surface. Sediments can increase turbidity, clog fish gills, reduce spawning habitat, lower young aquatic organisms survival rates, smother bottom dwelling organisms, and suppress aquatic vegetation growth.

- *Total Suspended Solids (TSS)* - The measure of the suspended solids in a water sample includes inorganic substances, such as soil particles and organic substances, such as algae, aquatic plant/animal waste, particles related to industrial/sewage waste, etc. These solids can increase turbidity, clog fish gills, reduce spawning habitat, lower young aquatic organisms survival rates, smother bottom dwelling organisms, and suppress aquatic vegetation growth.

- *pH* – pH is an expression of hydrogen ion concentration in water. pH affects most chemical and biological processes in water, and it is one of the most important environmental factors limiting the distribution of species in aquatic habitats. Different species flourish within different ranges of pH, with the optima for most aquatic organisms falling between pH 6.5-8. U.S. EPA water quality criteria for pH in freshwater suggest a range of 6.5 to 9. Fluctuating pH or sustained pH outside this range reduces biological diversity in streams because it physiologically stresses many species and can result in decreased reproduction, decreased growth, disease, or death.

- *Trash and Debris* – Trash (such as paper, plastic, polystyrene packing foam, and aluminum materials) and biodegradable organic matter (such as leaves, grass cuttings, and food waste) are general waste products on the landscape. The presence of trash and debris may have a significant impact on the recreational value of a water body and aquatic habitat. Trash impacts water quality by increasing biochemical oxygen demand.

- *Oxygen-Demanding Substances* – This category includes biodegradable organic material as well as chemicals that react with dissolved oxygen in water to form other compounds. Proteins, carbohydrates, and fats are examples of biodegradable organic compounds. Compounds such as ammonia and hydrogen sulfide are examples of oxygen-demanding compounds. The oxygen demand of a substance can lead to depletion of dissolved oxygen in a water body and possibly the development of septic conditions. A reduction of dissolved oxygen is detrimental to aquatic life and can generate hazardous compounds such as hydrogen sulfides.

- *Oil and Grease* – Oil and grease in water bodies decreases the aesthetic value of the water body, as well as the water quality. Primary sources of oil and grease are petroleum hydrocarbon products, motor products from leaking vehicles, esters, oils, fats, waxes, and high molecular-weight fatty acids.

2010 CWA
Section 303(d) List

DECISION ID 9028 Region 6

Mojave River (Mojave Forks Reservoir outlet to Upper Narrows)

Pollutant:	**Fluoride**
Final Listing Decision:	**List on 303(d) list (TMDL required list)**
Last Listing Cycle's Final Listing Decision:	New Decision
Revision Status	Revised
Sources:	Natural Sources
Expected TMDL Completion Date:	2021
Impairment from Pollutant or Pollution:	Pollutant

Conclusion:

This pollutant is being considered for placement on the section 303(d) list under section 3.2 of the Listing Policy. Under section 3.2 a single line of evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. Four of the annual average datapoints exceed the site-specific water quality objective. Nine samples exceed the California Maximum Contaminant Level.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:
1. The data used satisfy the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfy the data quantity requirements of section 6.1.5 of the Policy.
3. Four of five annual average datapoints exceed the site-specific objective. Nine of 14 samples exceed the California Maximum Contaminant Level and this exceeds the allowable frequency listed in Table 3.2 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

RWQCB Board Staff After review of the available data and information, RWQCB staff concludes that the

Decision:	water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.
SWRCB Board Staff Decision:	After review of this Regional Board decision, SWRCB staff recommend the decision be approved by the State Board.
USEPA Action (if applicable):	USEPA approved the listing of this water body as a water quality limited segment requiring a TMDL for this pollutant.

Line of Evidence (LOE) for Decision ID 9028, Fluoride **Region 6**

Mojave River (Mojave Forks Reservoir outlet to Upper Narrows)

LOE ID:	6767
Pollutant:	Fluoride
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Dissolved
Beneficial Use:	Cold Freshwater Habitat
Number of Samples:	5
Number of Exceedances:	4
Data and Information Type:	Fixed station physical/chemical (conventional plus toxic pollutants)
Data Used to Assess Water Quality:	The U.S. Geological Survey sampled this station under the Region 6 SWAMP program between 2001 and 2005. Fluoride concentrations in 14 quarterly samples ranged from 0.2 to 5.5 mg/L. The annual average objective was exceeded in four of five years.
Data Reference:	2007. SWAMP Data for the Mojave River Watershed
Water Quality Objective/Criterion:	The site-specific objective from Lahontan Basin Plan Table 3-21 (for Station 19) includes an annual average fluoride concentration of 0.2 mg/L and a 90th percentile value of 0 1.5 mg/L.

Objective/Criterion Reference:	Water Quality Control Plan for the Lahontan Region (as amended)
Evaluation Guideline:	
Guideline Reference:	
Spatial Representation:	One station, Mojave River below [Mojave] Forks Reservoir, was sampled.
Temporal Representation:	Fourteen quarterly samples (2 to 4 per year) were collected between 2001 and 2005.
Environmental Conditions:	The mainstem Mojave River originates below the Mojave River Forks Reservoir. The reservoir was constructed by damming the river?s two major tributaries, Deep Creek and the West Fork Mojave River. The Mojave River is designated for both the Warm Freshwater Habitat and Cold Freshwater Habitat beneficial uses
QAPP Information:	The data meet the quality assurance requirements of the SWAMP QAPP.
QAPP Information Reference(s):	

Line of Evidence (LOE) for Decision ID 9028, Fluoride **Region 6**

Mojave River (Mojave Forks Reservoir outlet to Upper Narrows)

LOE ID:	6766
Pollutant:	Fluoride
LOE Subgroup:	Pollutant-Water
Matrix:	Water
Fraction:	Dissolved
Beneficial Use:	Municipal & Domestic Supply
Number of Samples:	14
Number of Exceedances:	9
Data and Information Type:	Fixed station physical/chemical (conventional plus toxic pollutants)
Data Used to Assess Water Quality:	The U.S. Geological Survey sampled this station under the Region 6 SWAMP program between 2001 and 2005. Fluoride concentrations in 14 quarterly samples ranged from 0.2 to 5.5 mg/L. Nine of 14 samples exceeded the MCL.
Data Reference:	2007. SWAMP Data for the Mojave River Watershed

Water Quality Objective/Criterion:	California Maximum Contaminant Levels (MCLs) apply to ambient waters under the Lahontan Basin Plan's "Chemical Constituents" objective. The MCL for fluoride is 2 mg/L.
Objective/Criterion Reference:	Water Quality Control Plan for the Lahontan Region (as amended)
Evaluation Guideline:	
Guideline Reference:	
Spatial Representation:	One station, Mojave River below [Mojave] Forks Reservoir, was sampled.
Temporal Representation:	Fourteen quarterly samples (2 to 4 per year) were collected between 2001 and 2005.
Environmental Conditions:	The mainstem Mojave River originates below the Mojave River Forks Reservoir. The reservoir was constructed by damming the river?s two major tributaries, Deep Creek and the West Fork Mojave River. The Mojave River is designated for both the Warm Freshwater Habitat and Cold Freshwater Habitat beneficial uses. The major source of fluoride upstream of this station is natural geothermal springs.
QAPP Information:	The data meet the quality assurance requirements of the SWAMP QAPP.
QAPP Information Reference(s):	

LAND USE ZONING DISTRICT MAPPING