



County of San Diego
Stormwater Quality Management Plan (SWQMP)
For Standard Projects

Use for all Standard Projects (see Storm Water Intake Form, Part 4)



Standard Project

Project Information	
Project Name	Rugged Solar
Project Address	McCain Valley Road and Ribbonwood Road north of I-5
Assessor's Parcel # (APN)	611-110-01, 611-091-07, 612-030-19,01,04,03, 02 611-060-04, 611-100-07
Permit # / Record ID	PDS 2017-MUP-12-01W1, PDS 2017-MUP-12-010TE

Project Applicant / Project Proponent	
Name	Rugged Solar
Address	150 Mathilda Place, Suite 106 Sunnyvale, CA 94086
Phone	619-683-5544
Email:	james@jwhalen.net

SWQMP Preparer	
Name	Jay Sullivan, PE
Company (if applicable)	Michael Baker International
Address	9755 Clairemont Mesa Blvd
Phone	858-614-5000
Email:	JSULLIVAN@mbakerintl.com
PE Number (if applicable)	77445

Preparer's Certification	
<p>I understand that the County of San Diego has adopted minimum requirements for managing urban runoff, including storm water, from land development activities, as described in the County of San Diego BMP Design Manual. The BMP Design Manual is a design manual for compliance with local County of San Diego Watershed Protection Ordinance (Sections 67.801 et seq.) and regional MS4 Permit (California Regional Water Quality Control Board San Diego Region Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 and Order No. R9-2015-0100) requirements for storm water management.</p> <p>This SWQMP is intended to comply with applicable requirements of the BMP Design Manual. I certify that it has been completed to the best of my ability and accurately reflects the project being proposed and the applicable BMPs proposed to minimize the potentially negative impacts of this project's land development activities on water quality. I understand and acknowledge that the plan check review of this SWQMP by County staff is confined to a review and does not relieve me as the person in charge of overseeing the selection and design of storm water BMPs for this project, of my responsibilities for project design.</p>	
Signature	<i>Jay Sullivan</i>
Date	10-15-2019

COUNTY ACCEPTED	Approval Date:
SWQMP Approved By:	
<p>* Note* Approval does not constitute compliance with regulatory requirements.</p>	

General Directions

Note: These directions may be omitted from the final SWQMP submittal.

See **Standard SWQMP Form Instructions** for additional, more detailed guidance and explanation of terms.

Attachment 1: Stormwater Intake Form (Required)

Include a copy of your completed **Storm Water Intake Form** as **Attachment 1** to this submittal.

Table 1: BMPs for Existing Natural Features and Proposed Site Features

Complete **Table 1** to document existing and proposed site features and the BMPs to be implemented for them. Except where otherwise noted, all BMPs must be implemented **where applicable and feasible**.

- **Full implementation** means a BMP will be fully implemented everywhere that the feature exists on the site. For example, all existing water bodies will be fully conserved.
- **Partial implementation** means that some BMP implementation will occur, but the BMP will NOT be fully implemented everywhere that the feature exists. For example, only one of two existing water bodies will be conserved, or not all rooftop runoff will be dispersed to vegetated areas.
- **Infeasible** means a BMP cannot be either partially or fully implemented. Infeasibility can be based both on technical factors (soil type, site layout, etc.) and economic considerations (material or labor costs, etc.). However, technical factors should generally be given greater weight.

Provide justifications for not fully implementing BMPs in Table 4, Part 1.

Table 2: Source Control BMPs for Pollutant-generating Sources

All projects must complete **Table 2, Part A**. **Part B** is required unless the project is a Small Residential Project OR none of the features listed in the table are proposed for the project. *Small Residential Projects* are those requiring *either*: a Building Permit, Minor Residential Grading Permit, or Site Plan Permit for a single family home; *or* a Tentative Parcel Map Permit for up to 4 single family homes and a remainder parcel.

Each BMP must be implemented **where applicable and feasible**. Leaving a BMP unselected means it will not be implemented (either partially or fully). Provide infeasibility and partial feasibility justifications in Table 4, Part 1. Also describe in Table 4, Part 1 any proposed sources and/or BMPs not listed in Table 3.

If requested, complete and submit a **Source Control BMP Worksheet (Attachment 3)**.

Table 3: Temporary Construction Phase BMPs

Complete **Table 3** to document which BMPs will be implemented for each construction activity on the site. For each applicable activity, all BMPs listed must be fully implemented **where applicable and feasible**. Provide justifications for not fully implementing BMPs in Table 4, Part 2.

Table 4: Required Explanations

Use **Table 4** to provide justifications for Table 1, 2, and 3 BMPs as shown below.

Feature or Activity	Mandatory Justification	Justify if Requested
<ul style="list-style-type: none"> • Table 1 and 2 Site Features & Sources • Table 3 Construction Activities 	Any feature or activity for which NO BMPs are selected (you must explain why all BMPs are infeasible)	Individual BMPs that will either not be implemented, or will only be partially implemented

Table 5: Construction Plan Set Requirements

Complete **Table 5** to verify that the construction plans incorporate all applicable site features, activities, and BMPs identified in this SWQMP (**Tables 1, 2, and 3**).

Table 1 – Baseline BMPs for Existing and Proposed Site Features

Site Features	BMP Implementation					
Select each feature that applies.	Describe BMP implementation for each selected site feature.					
Group 1: Existing Natural Site Features [See BMPDM Sections 4.3.1 and 4.3.2]						
	Maintain & conserve natural features (SD-G)		Establish buffers for waterbodies (SD-H)			
	Full	Partial	Full	Partial		
<input type="checkbox"/> Natural waterbodies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/> Natural storage reservoirs & drainage corridors	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
<input checked="" type="checkbox"/> Natural areas, soils, & vegetation (incl. trees)	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Group 2: Common Impervious Outdoor Site Features [See BMPDM Sections 4.3.3 and 4.3.5]						
	Disperse impervious areas (SD-B)		Use permeable materials (SD-D)		Minimize impervious areas (SD-I)	
	Full	Partial	Full	Partial		
<input checked="" type="checkbox"/> Streets and roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Check here to confirm that impervious surfaces have been minimized where applicable and feasible for all outdoor impervious areas. If not, explain in Table 4.	
<input type="checkbox"/> Sidewalks & walkways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/> Parking areas & lots	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/> Driveways	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/> Patios, decks, & courtyards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/> Hardcourt recreation areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/> Water Storage Tanks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/> Tracker Posts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/> Inverter Pads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Group 3: Other Outdoor Site Features [See BMPDM Sections 4.2.6, 4.3.4, 4.3.5, 4.3.7, and 4.3.8]						
<input checked="" type="checkbox"/> Rooftop areas	Disperse rooftop runoff (SD-B)		Install green roofs (optional; SD-C)		Use rain barrels to capture runoff (optional; SD-E)	
	Full	Partial	Full	Partial	Full	Partial
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Landscaped areas	Use water-efficient landscaping (SD-J)		Install efficient irrigation systems (SD-K)		Minimize erosion of slopes and surfaces (SD-L)	
	Full	Partial	Full	Partial	Full	Partial
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Water features (pools, spas, etc.)	Provide a designated washing area (SC-A)		Drain feature to the sanitary sewer (if allowed) (SC-B)		Drain feature to a stormwater BMP (SC-C)	
	Full	Partial	Full	Partial	Full	Partial
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note: Table 4 justifications are required for any feature not selecting at least one BMP (either full or partial implementation). For Group 2 features this means not selecting either SD-B or SD-D. Additional justifications may be required on request by County staff. Also use Table 4 to describe sources or BMPs other than those listed.

Table 2 –Baseline BMPs for Pollutant-generating Sources (Group 4)

A. Requirements for Documentation Select either or both as applicable.	Completion of Part B is <u>not</u> required because: <input type="checkbox"/> This is a Small Residential Project, OR <input checked="" type="checkbox"/> None of these sources or features are proposed.	<input type="checkbox"/> Source Control BMP Requirements Worksheet E.1-1 (SC in Appendix E of the BMP Design Manual) is included as Attachment 3 (optional unless requested by County staff).
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B. Sources and BMPs Select all proposed sources and features below. Then select the BMPs on the right to be implemented for each.	SC-B	SC-C	SC-D	SC-E	SC-F	SC-G	SC-H
	Plumb to sanitary sewer	Drain feature to a pervious area	Provide containment for spills and discharges	Prevent contact with rainfall	Isolate flows from adjacent areas	Prevent wind dispersal	Label with stencils or signs
<u>Common Source Areas</u>							
<input type="checkbox"/> Trash & Refuse Storage	□	---	□	□	□	□	---
<input type="checkbox"/> Materials & Equipment Storage	□	---	□	□	□	□	---
<input type="checkbox"/> Loading & Unloading	□	---	□	□	□	---	---
<input type="checkbox"/> Fueling	□	---	□	□	□	---	---
<input type="checkbox"/> Maintenance & Repair	□	---	□	□	□	---	---
<input type="checkbox"/> Vehicle & Equipment Cleaning	□	---	□	□	□	---	---
<input type="checkbox"/> Food Preparation or Service	□	---	□	□	□	---	---
<u>Distributed Features</u>							
<input type="checkbox"/> Storm drain inlets & catch basins	---	---	---	---	---	---	□
<input type="checkbox"/> Interior floor drains and sumps	□	---	---	---	---	---	---
<input type="checkbox"/> Drain lines (air conditioning, etc.)	□	□	□	---	---	---	---
<input type="checkbox"/> Fire test sprinkler discharges	□	□	□	---	---	---	---

Provide the following in Table 4, Part 1: (1) justification of any source area or feature with NO BMPs selected, (2) justification of individual unselected BMPs if requested by County staff, and (3) identification of any proposed pollutant-generating sources and BMPs not listed here.

Note: Pollutant-generating sources and features may not discharge directly to the MS4.

Table 3 –Minimum Construction Stormwater BMPs

Minimum Required BMPs by Activity Type Select all applicable activities and at least one BMP for each	References	
	Caltrans ¹	County of San Diego
<input checked="" type="checkbox"/> Erosion Control for Disturbed Slopes (choose at least 1 per season)		
<input type="checkbox"/> Vegetation Stabilization Planting ² (Summer)	SS-2, SS-4	
<input checked="" type="checkbox"/> Hydraulic Stabilization Hydroseeding ⁶ (Summer)	SS-4	
<input checked="" type="checkbox"/> Bonded Fiber Matrix or Stabilized Fiber Matrix ³ (Winter)	SS-3	
<input type="checkbox"/> Physical Stabilization Erosion Control Blanket ⁷ (Winter)	SS-7	
<input checked="" type="checkbox"/> Erosion control for disturbed flat areas (slope < 5%)		
<input checked="" type="checkbox"/> County Standard Lot Perimeter Protection Detail	SC-2	PDS 659 ⁴
<input checked="" type="checkbox"/> Use of Item A erosion control measures on flat areas	SS-3, SS-4, SS-7	
<input type="checkbox"/> County Standard Desilting Basin (must treat all site runoff)	SC-2	PDS 660 ⁵
<input type="checkbox"/> Mulch, straw, wood chips, soil application	SS-6, SS-8	
<input type="checkbox"/> Energy dissipation (required to control velocity for concentrated runoff or dewatering discharge)		
<input type="checkbox"/> Energy Dissipater Outlet Protection	SS-10	RSD D-40 ⁶
<input checked="" type="checkbox"/> Sediment control for all disturbed areas		
<input checked="" type="checkbox"/> Silt Fence	SC-1	
<input checked="" type="checkbox"/> Fiber Rolls (Straw Wattles)	SC-5	
<input checked="" type="checkbox"/> Gravel & Sand Bags	SC-6, SC-8	
<input type="checkbox"/> Dewatering Filtration	NS-2	
<input type="checkbox"/> Storm Drain Inlet Protection	SC-10	
<input type="checkbox"/> Engineered Desilting Basin (sized for 10-year flow)	SC-2	
<input checked="" type="checkbox"/> Preventing offsite tracking of sediment		
<input checked="" type="checkbox"/> Stabilized Construction Entrance	TC-1	
<input checked="" type="checkbox"/> Construction Road Stabilization	TC-2	
<input checked="" type="checkbox"/> Entrance/Exit Tire Wash	TC-3	
<input checked="" type="checkbox"/> Entrance/Exit Inspection & Cleaning Facility	TC-1	
<input checked="" type="checkbox"/> Street Sweeping and Vacuuming	SC-7	
<input checked="" type="checkbox"/> Materials Management		
<input checked="" type="checkbox"/> Material Delivery & Storage	WM-1	
<input checked="" type="checkbox"/> Spill Prevention and Control	WM-4	
<input checked="" type="checkbox"/> Waste Management⁷		
<input checked="" type="checkbox"/> Waste Management Concrete Waste Management	WM-8	
<input checked="" type="checkbox"/> Solid Waste Management	WM-5	
<input checked="" type="checkbox"/> Sanitary Waste Management	WM-9	
<input checked="" type="checkbox"/> Hazardous Waste Management	WM-6	

¹ See Caltrans 2017 Storm Water Quality Handbooks, Construction Site BMP Manual, available at: <http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm>

² Planting or Hydroseeding may be installed between May 1st and August 15th. Slope irrigation must be in place and operable for slopes >3 feet. Vegetation must be watered and established prior to October 1st. A contingency physical BMP must be implemented by August 15th if vegetation is not established by that date. If landscaping is proposed, erosion control measures must also be used while landscaping is being established. Established vegetation must have a subsurface mat of intertwined mature roots with a uniform vegetative coverage of 70 percent of the natural vegetative coverage or more on all disturbed areas.

³ All slopes over three feet must have established vegetative cover prior to final permit approval.

⁴ County PDS 659. Standard Lot Perimeter Protection Design System (Bldg. Division)

⁵ County PDS 660. County Standard Desilting Basin for Disturbed Areas of 1 Acre or Less Bldg. Division

⁶ Regional Standard Drawing D-40 – Rip Rap Energy Dissipater (also acceptable for velocity reduction)

⁷ Applicants are responsible to apply appropriate BMPs for specific wastes (e.g., BMP WM-8 for concrete).

Table 4 – Required Explanations

Part 1: Permanent Post-construction BMPs (from Tables 1 and 2)		
<ul style="list-style-type: none"> • Required Justifications: If NO BMPs are selected for a source or feature, justify why <u>all</u> BMPs are either not applicable or are infeasible. For Group 2 features NO BMPs means not selecting either SD-B or SD-D. • If Requested: Justify why individual BMPs will not be implemented or will only be partially implemented. • Additional Explanation: Describe any proposed features and/or BMPs not listed in Tables 1 or 2. 		
BMP-Feature Combination		Explanation
Feature	Impervious Areas	Inverter pads, water storage tanks, and tracker posts are unable to be made from permeable materials.
BMP	Use permeable materials	
Feature		
BMP		
Feature		
BMP		
Part 2: Justifications for Temporary Construction Phase BMPs (from Table 3)		
<ul style="list-style-type: none"> • Required Justifications: Justify all construction activity types for which NO BMPs were selected. • If Requested: Justify why specific individual BMPs were not selected. • Additional Explanation: Describe any proposed features and/or BMPs not listed in Table 3. 		
BMP-Activity Combination		Explanation
Activity Type		
BMP		
Activity Type		
BMP		

Table 5 – Construction Plan Set Requirements⁸

Use this checklist to confirm that the required information is included on the construction plans.
<input checked="" type="checkbox"/> Include all source control and site design measures described in the SWQMP.
<input checked="" type="checkbox"/> Include all construction BMPs described in the SWQMP.

⁸ For Building Permit Applications, refer to Form PDS 272, <https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/pds272.pdf>