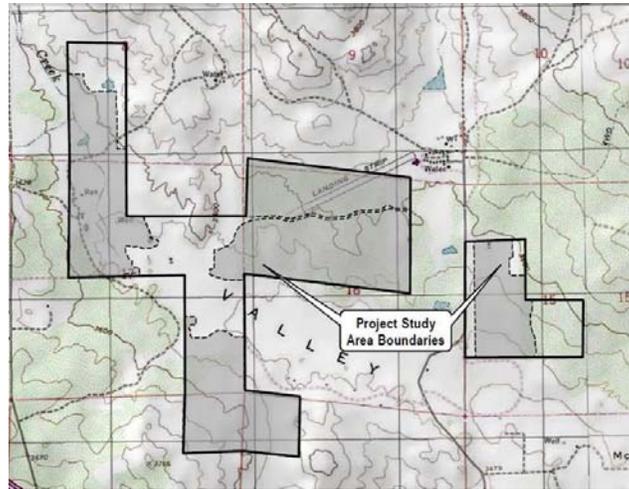


# DRAFT

## Fire Protection Plan Rugged Solar Farm Project



Rugged Solar Farm Project Site

APNs 611-110-01-00, 611-100-02-00, 611-100-01-00, 611-090-04-00, 611-091-03-00,  
611-090-02-00, 611-060-04-00, 611-091-07-00, 612-030-19-00, 611-091-09-00, and  
612-030-01-00, MUP # 3300-12-007

Environmental Review Project Number 3910-120005

*Prepared for:*

**County of San Diego**

*Project Proponent:*

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**DECEMBER 2013**



# Rugged Solar Farm Project Fire Protection Plan

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## TABLE OF CONTENTS

<b><u>Section</u></b>	<b><u>Page No.</u></b>
<b>EXECUTIVE SUMMARY .....</b>	<b>III</b>
<b>1.0 INTRODUCTION.....</b>	<b>1</b>
1.1 Project Summary.....	2
1.1.1 Project Location .....	2
1.1.2 Project Description.....	7
1.1.3 Construction Fire Prevention .....	11
1.1.4 Environmental Setting .....	11
<b>2.0 DETERMINATION OF PROJECT EFFECTS .....</b>	<b>21</b>
<b>3.0 ANTICIPATED FIRE BEHAVIOR .....</b>	<b>26</b>
3.1 Fire Behavior Modeling .....	26
3.1.1 Fire Behavior Modeling Inputs .....	26
3.1.2 Fire Behavior Modeling Results .....	27
<b>4.0 ANALYSIS OF PROJECT EFFECTS .....</b>	<b>32</b>
4.1 Adequate Emergency Services .....	32
4.1.1 Emergency Response .....	32
4.2 Fire Access.....	35
4.2.1 Fire and Maintenance Access Roads for Solar Facility .....	35
4.2.2 Identification .....	38
4.3 Water.....	38
4.4 Ignition-Resistant Construction and Fire Protection Systems .....	39
4.5 Defensible Space and Vegetation Management .....	41
4.5.1 Fuel Modification.....	41
4.6 Cumulative Impact Analysis.....	46
<b>5.0 MITIGATION MEASURES AND DESIGN CONSIDERATIONS .....</b>	<b>48</b>
<b>6.0 CONCLUSION .....</b>	<b>50</b>
<b>7.0 LIST OF PREPARERS.....</b>	<b>53</b>
<b>8.0 REFERENCES.....</b>	<b>55</b>

**Rugged Solar Farm Project  
Fire Protection Plan**

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**TABLE OF CONTENTS (CONTINUED)**

**Page No.**

**APPENDICES**

A	Rugged Solar Farm Project Features
B	Representative Photographs
C	Site Vegetation Map
D	Fire History Exhibit
E	BehavePlus Fire Behavior Analysis
F	Fire Facility Availability Form
G	Fire Safety Site Plan
H	Prohibited Plant List
I	Potential Plant List for Fuel Modification Areas
J	Solar Facility Fire Hazard Technical Report

**FIGURES**

1	Regional Map.....	3
2	Vicinity Map.....	5
3	Site Plan.....	9
4	BehavePlus Analysis Map.....	30

**TABLES**

1	Rugged Solar Farm Project Vegetation Communities.....	12
2	BehavePlus Fine Dead Fuel Moisture Calculation.....	26
3	BehavePlus Fire Behavior Modeling Inputs.....	27
4	BehavePlus Fire Behavior Modeling Results.....	28
5	Total Estimated Water Use for Project Operation.....	38

# Rugged Solar Farm Project Fire Protection Plan

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## EXECUTIVE SUMMARY

This Fire Protection Plan (FPP) is submitted pursuant to section 4903 of the County Consolidated Fire Code to address the adverse environmental effects that the proposed Rugged Solar Farm Project (Project) may have from wildland fire. It provides documentation that the project does not expose people or structures to a significant risk of loss, injury or death involving wildland fires based on its conformance with applicable fire and building codes.

The proposed Project is a solar farm that would produce up to 80 megawatts (MW) of solar energy and would consist of approximately 3,588 concentrating photovoltaic (CPV) trackers on 765 acres in southeastern San Diego County, near the unincorporated community of Boulevard, California. The project includes the use of “moving” solar arrays that track the sun across the sky on a daily basis. Individual solar tracker dimensions are approximately 48 feet across by 25 feet tall and they are elevated above the ground on steel poles.

The Project will be constructed in an area of San Diego County which is statutorily designated by the California Department of Forestry and Fire Protection (CAL FIRE) as a Moderate and Very High Fire Hazard Severity Zone (CAL FIRE 2013). Fire hazard designations are based on topography, vegetation, and weather, amongst other factors that indicate the likelihood of wildfire occurrence. The project site is located in an area dominated by chaparral vegetation, which is a vegetation community that experiences occasional wildfire and can burn in an extreme manner under windy, dry conditions. The terrain on, and within the vicinity of the Project, is predominantly flat to gently rolling. The Project area, like all of inland San Diego County, is subject to seasonal weather conditions that can heighten the likelihood of fire ignition and spread. Based on the region’s fuels, fire history, and expected fire behavior, a high-intensity fire can be expected to occur in the project area. Fire behavior in the project area can be extreme with intense heat, above average flame lengths, fast spread and spotting. The applicable fire codes and measures required by this FPP directly address the fire concerns associated with this Project’s location.

Fire protection in the Project area is shared by several agencies, with the San Diego County Fire Authority (SDCFA) and CAL FIRE providing significant resources. The closest fire station is the Boulevard Volunteer Fire Department. CAL FIRE has the primary responsibility for wildfire protection within State Responsibility Areas (SRAs). Both SDCFA and CAL FIRE operate fire stations within a short driving distance of the project.

The project will introduce a solar facility, electrical transmission line and related activities into a rural setting that currently includes semi-disturbed and undisturbed wildland fuels. The Project may increase potential ignition sources in the area with the ongoing operation and

## **Rugged Solar Farm Project Fire Protection Plan**

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maintenance program, but will reduce the available wildland fuels and will result in a higher level of fire monitoring and awareness due to on-site personnel and security measures. The site is currently subject to ignition sources including nearby roads, including Interstate 8, a major electrical transmission line easement adjacent to McCain Valley Road associated with the Sunrise Powerlink, and ongoing ranching operations. The Project will include compliance with the San Diego County Consolidated Fire Code and will provide additional measures that enhance fire safety and protection.

Based on the project's conformance with applicable fire and building codes along with the additional measures identified in this FPP, the project would not result in a significant impact under CEQA.

# Rugged Solar Farm Project Fire Protection Plan

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## 1.0 INTRODUCTION

This Fire Protection Plan (FPP) has been prepared for the Rugged Solar Farm Project near the community of Boulevard, California. The purpose of the FPP is to assess the potential impacts resulting from wildland fire hazards and identify the measures necessary to adequately mitigate those impacts. As part of the assessment, this FPP has considered the property location, topography, geology (soils and slopes), combustible vegetation (fuel types), climatic conditions, and fire history. The plan addresses water supply, access (including secondary/emergency access where applicable), solar component and structure ignitability and ignition resistive features, fire protection systems and equipment, impacts to existing emergency services, defensible space, and vegetation management. The plan identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment that will protect this project and its essential infrastructure. The plan recommends measures that the property owner will take to reduce the probability of ignition of equipment or structures throughout the project area addressed by this plan.

This FPP is consistent with the County Consolidated Fire Code (CCFC), which was certified as a package with the County Building Code by the State Board of Forestry to be consistent with California Code of Regulations, Title 14, Fire Safe Regulations. Since the project is within State Responsibility Area, Title 14 is applicable, but the certified CCFC is now used in lieu of Title 14. Further, the Project is consistent with the County Building and Electrical Codes and will employ all related California Public Utilities Commission (CPUC) regulations including the General Order 95: *Rules for Overhead Electric Line Construction*.

The purpose of this FPP is to analyze the project's various components and siting in a fire hazard area and to generate and memorialize the fire safety requirements of the Fire Authorities Having Jurisdiction (FAHJ). Recommendations of this FPP incorporate analysis and recommendations resulting from the Soitec Solar Portfolio Project Emergency Service Capabilities Assessment and Cumulative Impact Mitigation report (Dudek and Hunt 2013) which analyzed the cumulative impact of the Soitec projects, along with other foreseeable projects, on the area's emergency service resources and made recommendations for effectively mitigating identified impacts. Requirements and recommendations are based on site-specific characteristics and incorporate input from the project applicant and the SDCFA. This FPP incorporates all applicable fire safety regulations and requirements and documents in text a selection of these regulations that are most pertinent to the Project's unique facility and location.

# Rugged Solar Farm Project Fire Protection Plan

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## 1.1 Project Summary

### 1.1.1 Project Location

The 765-acre Rugged solar farm site is located north of I-8 to the east of Ribbonwood Road and primarily west of McCain Valley Road and includes the following APNs: 611-060-04, 611-090-02, 611-090-04, 611-091-03, 611-091-07 (portion), 611-100-07, 612-030-01, and 612-030-19, and a property (APN 611-110-01) located adjacent to and east of McCain Valley Road. As depicted in Figure 1-2, the Rugged solar farm includes two separate sites. A majority of the site is located west of McCain Valley Road and includes the central, northwest, and southern subareas. A smaller portion of the site is east of McCain Valley Road and comprises the eastern subarea. Existing land uses in the surrounding area include Rough Acres Ranch, public agency and tribal lands designated and planned for renewable energy development, and lands designated rural by the County of San Diego General Plan. Rough Acres Ranch consists of open and disturbed grazing lands, boulder outcrops, mixed vegetation coverage including grasslands and sparse chaparral vegetation, a large construction yard, a conference center, and several agricultural-supporting structures such as barns located adjacent to McCain Valley Road which support ranch operations. Public Agency Lands consist of the McCain Valley Conservation Camp (located south of Rough Acres Ranch) and undeveloped lands managed by the Bureau of Land Management (BLM) that are generally located north of Rough Acres Ranch as well as east of McCain Valley Road. The proposed 128-turbine Tule Wind Energy Project would be located north of the Rugged Solar Farm project on lands designated as available for wind energy development by the BLM and the proposed Jewel Valley Wind Project would be located on County jurisdictional land approximately 0.5 miles northwest of the Rugged Solar Farm site (the number of turbines associated with the Jewel Valley Wind Project has not been determined at this time). Development on rural lands surrounding the project site is relatively sparse and consists of scattered rural residences situated on large, chaparral-strewn lots bisected by narrow dirt roadways (rural residential development in the immediate area is generally located south and east of the project site).

The Project site (solar farm) will be constructed in areas of San Diego County which are determined to be in an area classified as Moderate and Very High Fire Hazard Severity Zones by California Department of Forestry and Fire Protection (CAL FIRE) (CAL FIRE 2013).