

SINGLE MOTORIZED SLIDING GATE

* 4" DIAMETER POST FOR GATE LEAF LENGHT 35'-0" AND LESS



AECOM

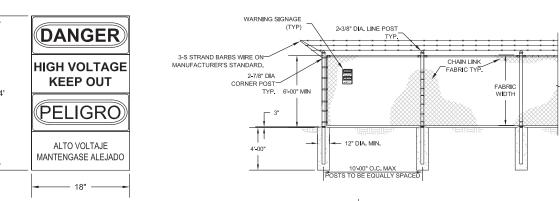
AECOM TECHINCAL SERVICES, INC 440 Stevens Avenue, Suite 250 Solana Beach, CA 98075 858.947.7144 tel 858.947.7145 fax www.aecom.com

CLIENT





Soitec Solar Development, LLC 16550 Via Esprillo San Dlego, CA 92127



3 DETAIL - CHAIN LINK FENCE

FENCE NOTES:

- 1. CHAIN LINK FABRIC SHALL BE 2" MESH NO.9 GAGE WERE SECURITY FASTED TO LINE POSTS AND RAILS.WIRE FASTENERS AND THE CLIPS SHALL BE NO.11 GAGE
- 2. WIRE.CONCRETE FOOTINGS SHALL HAVE TOPS CROWNED AT GROUND LEVEL.
- 3. CHAIN LINK FENCE TO BE FITTED WITH UV- RESISTANT MESH FABRIC, COLOR PER
- 4. ELECTRICAL SAFETY SIGNAGE TO BE PLACED ALONG PERIMETER.

-	VICINITY MAP	OWNER
20170	SSITE	NAME:
	NORTH OF STREET	ADDRESS:
5	NOTE	CITY:
3		STATE:
2	NOOTHAL 10 2 SITE	ZIP:
5	The same	PHONE:
		FAX:
1	COUNTY OF	EMAIL:
2	SAN DIEGO	

INFORMATION SEE TABLE AT C-100

NAME: Pat Brown ADDRESS: 16550 Via Esprillo San Dlego

CONTACT INFORMATION

STATE: CA

FAX:

PHONE: (858) 746-9000

EMAIL: patrick.brown@soitec.com

North of I-8, east of Ribbonwood Road. on both sides of McCain Valley Road.

DESIGNER SIGNATURE REQUIRED DATE

6120300100.6120301900.6110910700.6110910300

APN:6110900400,6110600400,6110900200,6111000100,

PARCEL INFORMATION

I CERTIFY THAT I HAVE READ ALL ZONING REGULATIONS AND BEST MANAGEMENT PRACTICES (BMPs) NOTES AND THAT I AM THE DESIGNER OF THE PROPOSED PROJECT:

PROJECT INFORMATION

2 WARNING SIGNAGE

Scale: NTS

Rolling, rugged land with two detached land sections made up of many parcels. All land is randomly populated by boulders. The site is minimally developed with unpaved roads.

PROPOSED:

Approximately 84 Megawatt (MW) project located on approximately 474 acres and includes construction and operation of approximately 3588 Concentrated Photovoltalc (CPV) trackers configured Into 61 (1.36 MW) Building Blocks (BB) each consisting of 58 trackers with associated Inverters and Transformers.

PLOT PLAN INFORMATION CPV System Summary Approx. Number of Trackers: 3588 Tracker per BB: 58 Number of BB: Total AC Capacity (MWs): Approx. 84 MW Inverter Skid AC Capacity (MWs): 1.36 to 2.0 No. of 1.36 MW Inverter Skids: 61 Total Lot Size (Acres): 765 Estimated Disturbed Acreage: 474

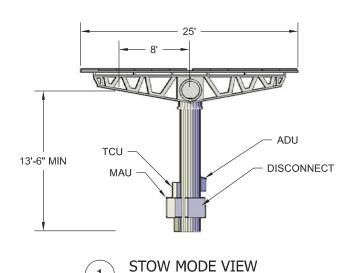
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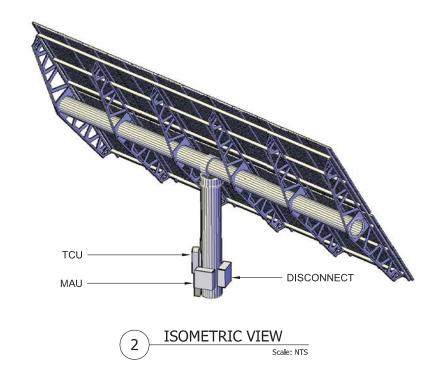
Coverage Ratio:

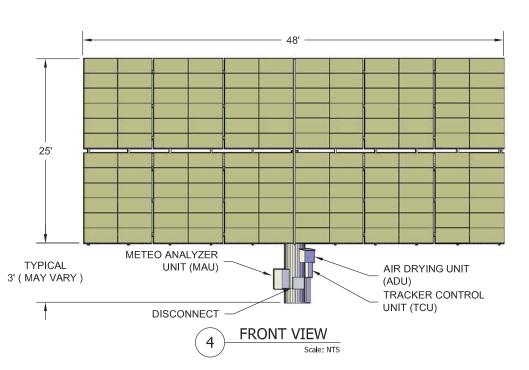
FENCE ELEVATION DETAIL

SHEET TITLE

SHEET NUMBER REV. C-132 0







30' MAX. SIDE VIEW

VICINITY	MAP
NORTH NORTH	SITE
	SITE
OLD NWY 80	OUINTY OF
	SAN DIEGO

NAME: SEE TABLE AT C-100 ADDRESS: STATE: FAX:

NAME: Pat Brown ADDRESS: 16550 Via Esprillo STATE: CA PHONE: (858) 746-9000 FAX: EMAIL: patrick.brown@soitec.com

CONTACT INFORMATION

PARCEL INFORMATION 6120300100,6120301900,6110910700,6110910300, APN**Ł** 6110900400,6110600400,6110900200,6111000100,

North of I-8, east of Ribbonwood Road, on both sides of McCain Valley Road.

I CERTIFY THAT I HAVE READ ALL ZONING REGULATIONS AND BEST MANAGEMENT PRACTICES (BMPs) NOTES AND THAT I AM THE DESIGNER OF THE PROPOSED PROJECT:

DESIGNER SIGNATURE REQUIRED DATE

474 acres and includes construction and operation of approximately 3588 Concentrated Photovoltaic (CPV) trackers configured into 61 (1.36 MW) Building Blocks (BB) each consisting of 58 trackers with associated Inverters and Transformers.

Approx. Number of Trackers: 58 1.36 to 2.0 61

PLOT PLAN INFORMATION

Tracker per BB: Number of BB: Approx. 84 MW Total AC Capacity (MWs): Inverter Skid AC Capacity (MWs): No. of 1.36 MW Inverter Skids: Total Lot Size (Acres): 765 Estimated Disturbed Acreage: 474 Coverage Ratio: 20%

DESIGNER

AECOM

AECOM TECHINCAL SERVICES, INC 440 Stevens Avenue, Suite 250 Solana Beach, CA 98075 858.947.7144 tel 858.947.7145 fax www.aecom.com

CLIENT



Soitec

Soitec Solar Development, LLC 16550 VIa Esprillo San Diego, CA 92127

OWNER INFORMATION

Rolling, rugged land with two detached land sections made up of many parcels. All land is randomly populated by boulders. The site is minimally developed with unpaved roads.

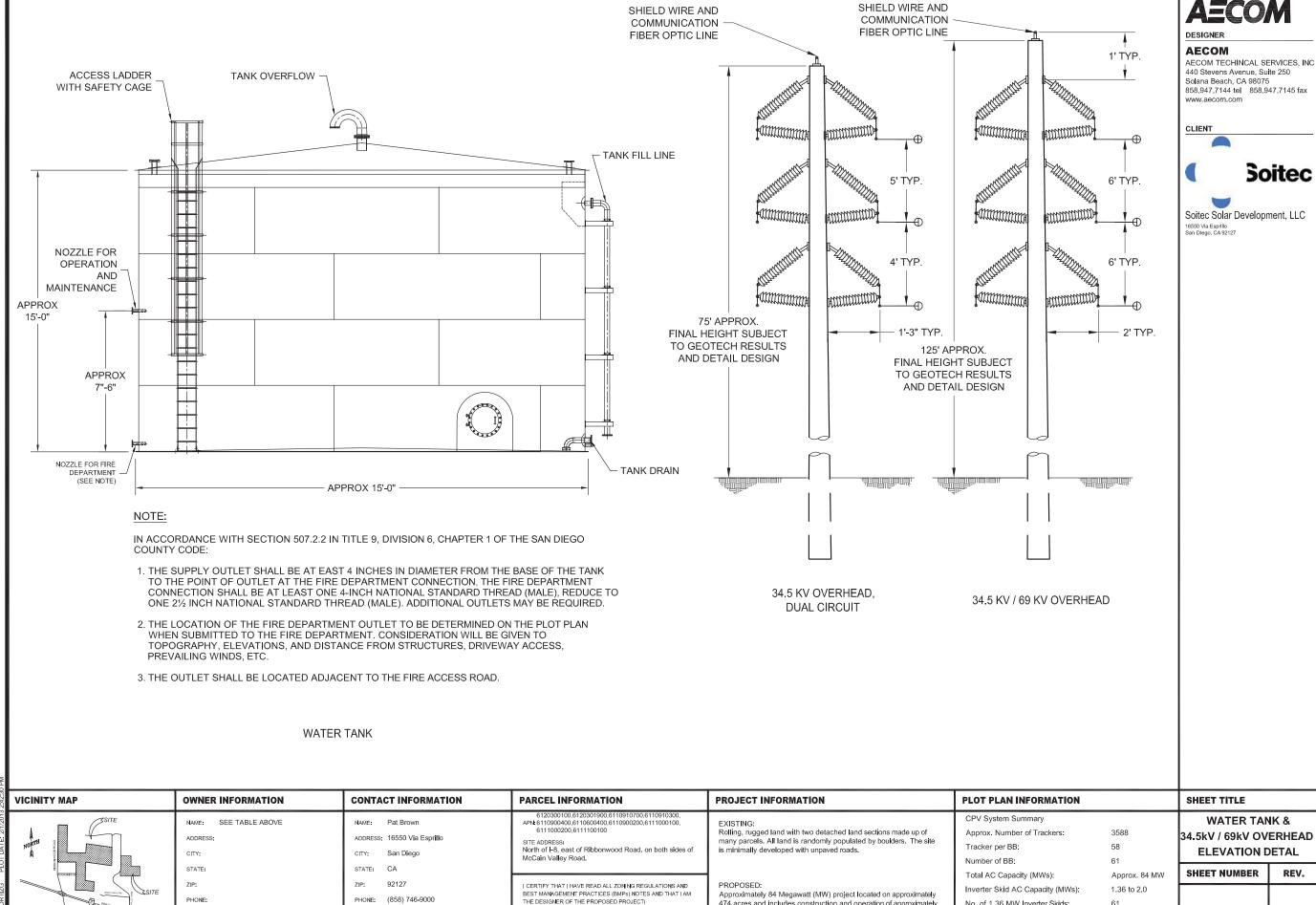
PROPOSED: Approximately 84 Megawatt (MW) project located on approximately

PROJECT INFORMATION

CPV System Summary 3588 TRACKER ELEVATION **DETAIL**

SHEET NUMBER REV. C-133 0

SHEET TITLE



DESIGNER SIGNATURE REQUIRED. DATE

474 acres and includes construction and operation of approximately 3588 Concentrated Photovoltaic (CPV) trackers configured into 61

(1.36 MW) Building Blocks (BB) each consisting of 58 trackers with

associated Inverters and Transformers.

No. of 1.36 MW Inverter Skids:

Estimated Disturbed Acreage:

Total Lot Size (Acres):

Coverage Ratio:

61

765

474

20%

C-134

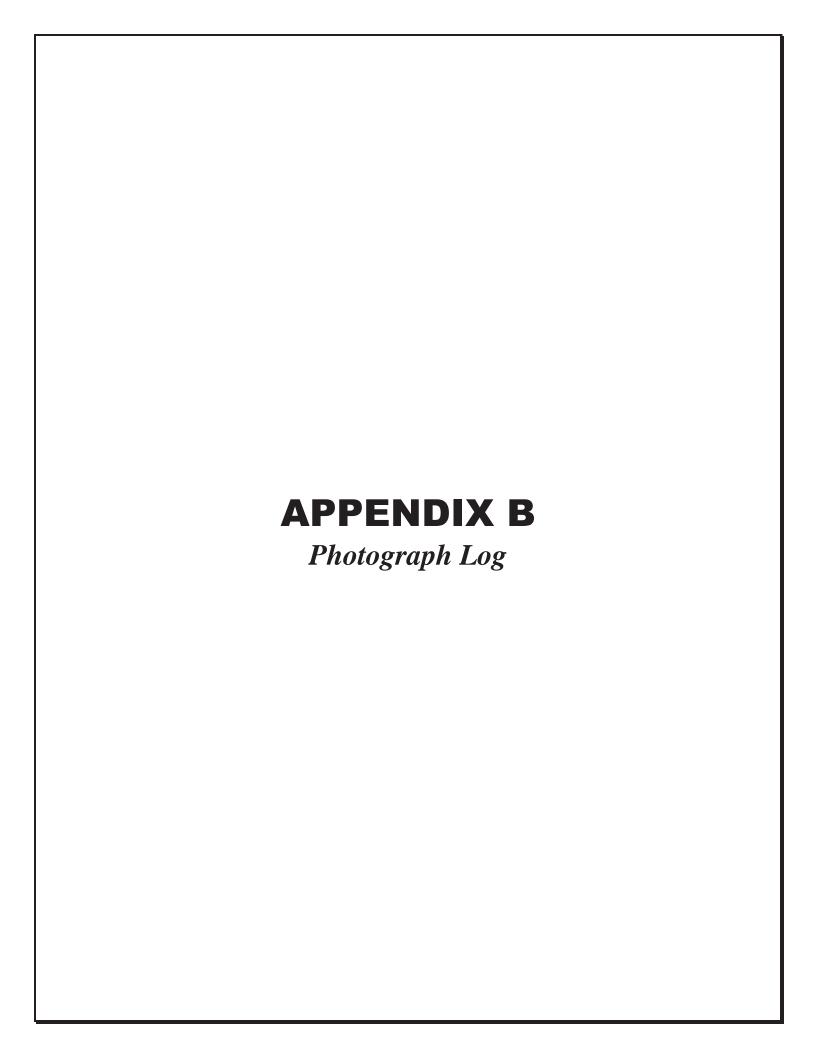
0

FAX:

COUNTY OF

FAX:

EMAIL: patrick.brown@soitec.com



APPENDIX B Photograph Log



Photo 1: View of the northern limits of the project site adjacent to McCain Valley Road. A fence associated with the staging area for the Sunrise Powerlink can be seen in the distance along with structures associated with Rough Acres Ranch.



Photo 2: A view of the project site looking southwest from the northern limits of the property.



Photo 3: Looking northward towards rock outcroppings along the northern property limits adjacent to Tule Creek.



Photo 4: The 500 kV Southwest Powerlink is located between the central and eastern building blocks along McCain Valley Road.



Photo 5: View of Tule Creek looking west towards the Kumeyaay Wind Farm.



Photo 6: The project site is actively being utilized for cattle grazing as seen here in this photo.



Photo 7: View of the central portion of the site and Coast Live Oak Woodland habitat.



Photo 8: View of the northwestern building block looking north towards McCain Valley.



Photo 9: View of Tule Creek and the southern building block looking southwest towards the Kumeyaay Wind Farm.

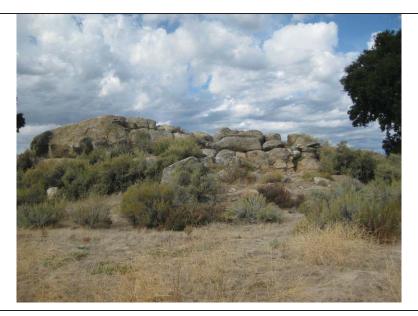


Photo 10: Large rock outcroppings located in the northwest portion of the project site.



Photo 11: View of the central portion of the project site looking west towards the Kumeyaay Wind Farm.



Photo 12: View of the southern limits of the project site looking north towards McCain Valley Road.



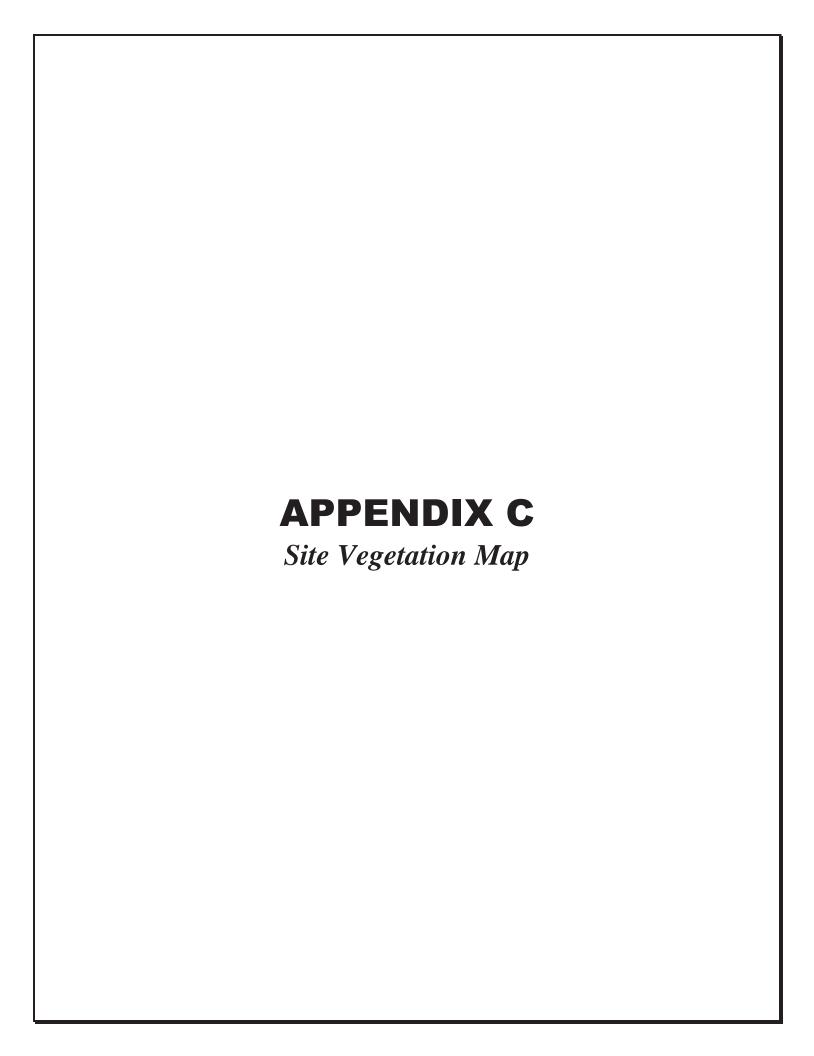
Photo 13: View of the building block located east of McCain Valley road.

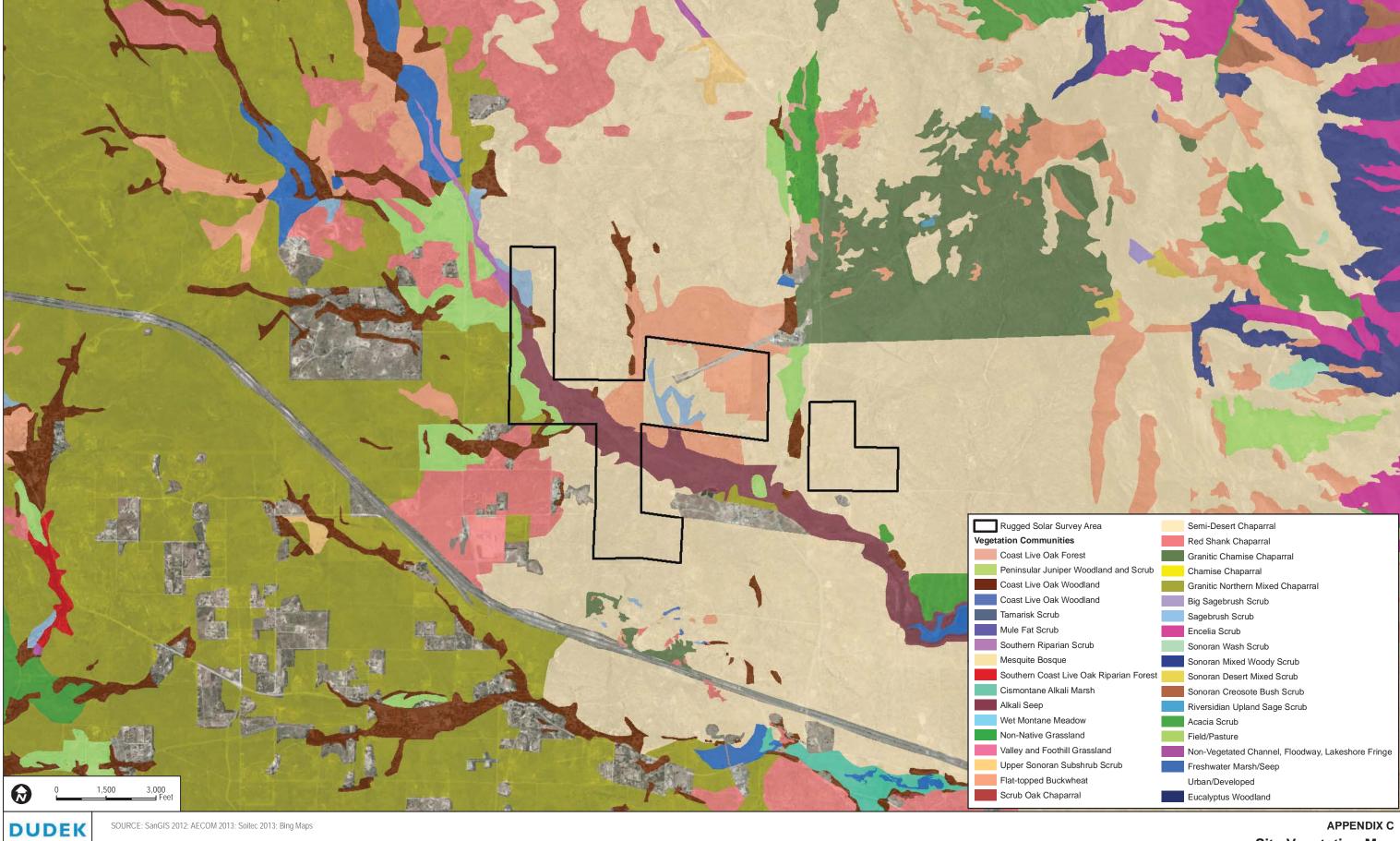


Photo 14: View of the southern project limits located adjacent to private lands.

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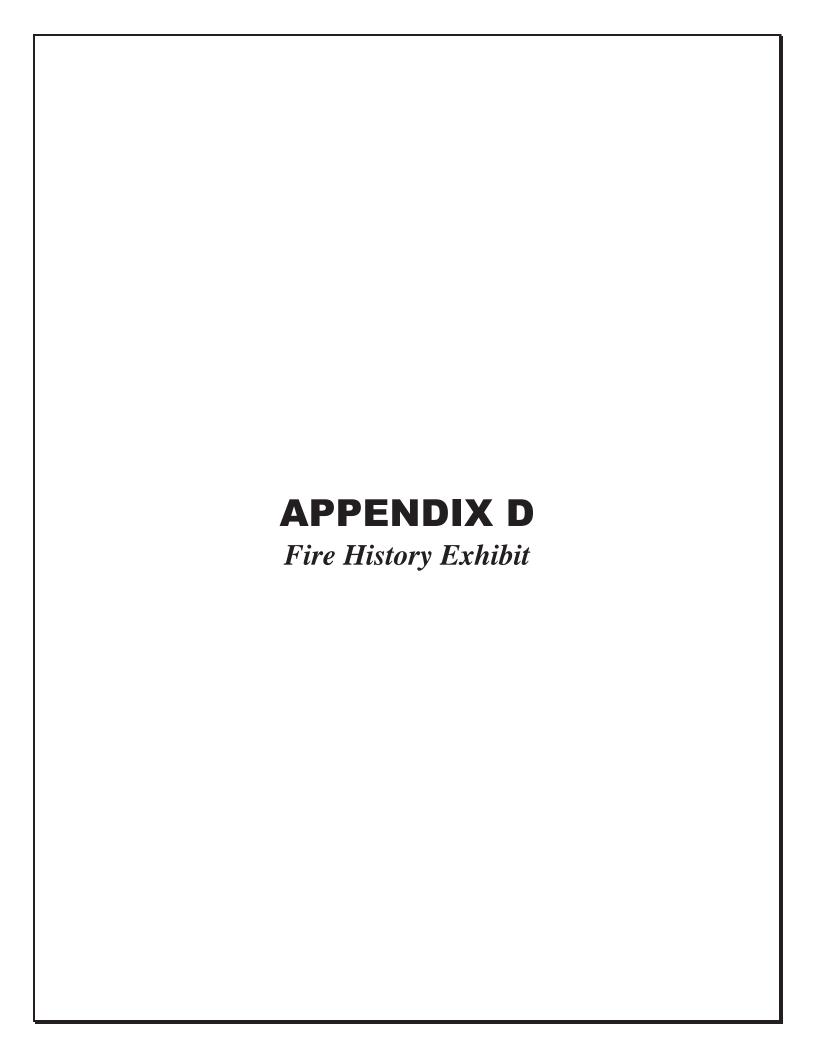


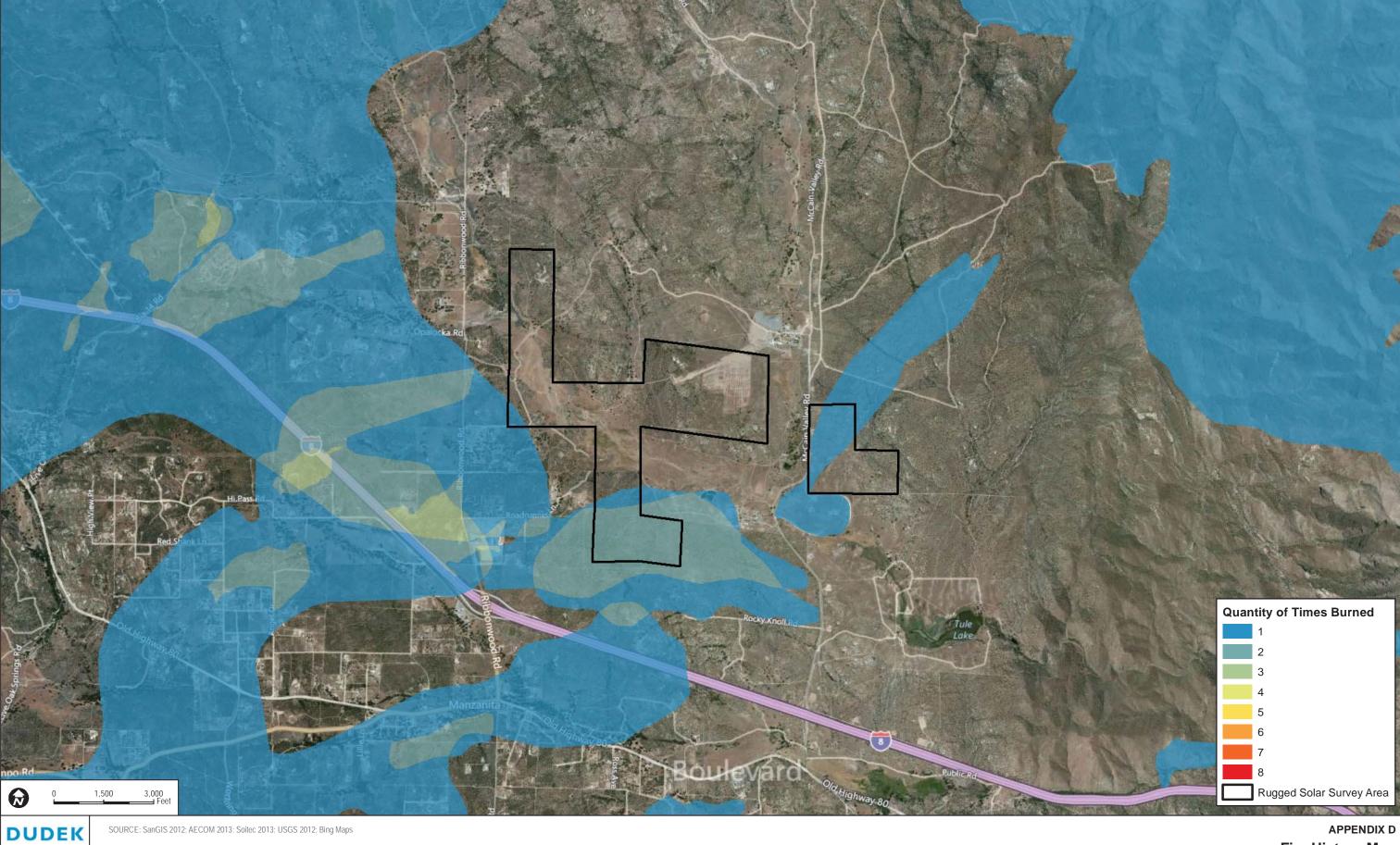




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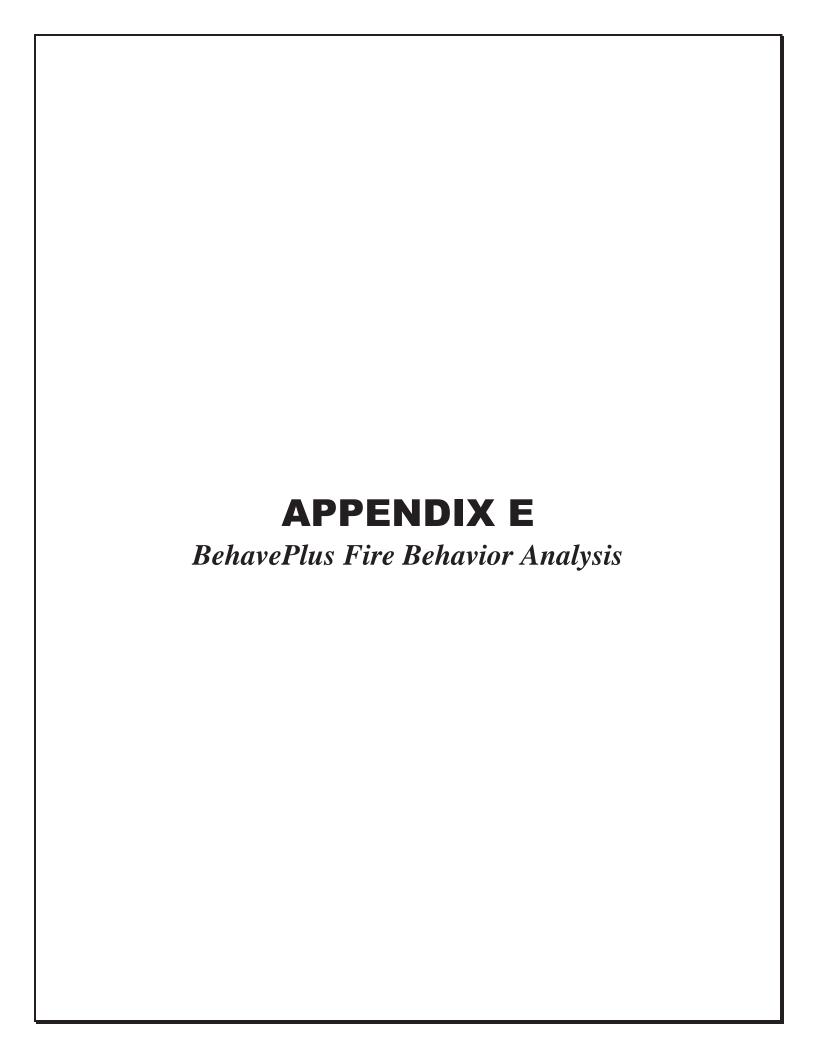
Site Vegetation Map





7122

Fire History Map



APPENDIX E BehavePlus Fire Behavior Analysis

BehavePlus Fire Behavior Modeling

Fire behavior modeling includes a high level of analysis and information detail to arrive at reasonably accurate representations of how wildfire would move through available fuels on a given site. Fire behavior calculations are based on site-specific fuel characteristics supported by fire science research that analyzes heat transfer related to specific fire behavior. To objectively predict flame lengths, spread rates, and fireline intensities, the BehavePlus 5.0.5 fire behavior modeling system was applied using predominant fuel characteristics, slope percentages, and extreme weather variables for the site.

Predicting wildland fire behavior is not an exact science. As such, the movement of a fire will likely never be fully predictable, especially considering the variations in weather and the limits of weather forecasting. Nevertheless, practiced and experienced judgment, coupled with a validated fire behavior modeling system, results in useful and accurate fire prevention planning information.

To be used effectively, the basic assumptions and limitations of BehavePlus must be understood.

- First, it must be realized that the fire model describes fire behavior only in the flaming front. The primary driving force in the predictive calculations is dead fuels less than one-quarter inch in diameter. These are the fine fuels that carry fire. Fuels greater than one inch have little effect while fuels greater than three inches have no effect on fire behavior.
- Second, the model bases calculations and descriptions on a wildfire spreading through surface fuels that are within six feet of the ground and contiguous to the ground. Surface fuels are often classified as grass, brush, litter, or slash.
- Third, the software assumes that weather and topography are uniform. However, because wildfires almost always burn under non-uniform conditions, length of projection period and choice of fuel model must be carefully considered to obtain useful predictions.
- Fourth, the BehavePlus fire behavior computer modeling system was not intended for determining sufficient fuel modification zone widths. However, it does provide the average length of the flames, which is a key element for determining "defensible space" distances for minimizing structure ignition.

Although BehavePlus has some limitations, it can still provide valuable fire behavior predictions which can be used as a tool in the decision-making process. In order to make reliable estimates of fire behavior, one must understand the relationship of fuels to the fire environment and be able to recognize the variations in these fuels. Natural fuels are made up of the various components of vegetation, both live and dead, that occur on a site. The type and quantity will depend upon the



soil, climate, geographic features, and the fire history of the site. The major fuel groups of grass, shrub, trees, and slash are defined by their constituent types and quantities of litter and duff layers, dead woody material, grasses and forbs, shrubs, regeneration, and trees. Fire behavior can be predicted largely by analyzing the characteristics of these fuels. Fire behavior is affected by seven principal fuel characteristics: fuel loading, size and shape, compactness, horizontal continuity, vertical arrangement, moisture content, and chemical properties.

The seven fuel characteristics help define the 13 standard fire behavior fuel models (Anderson 1982) and the more recent custom fuel models developed for southern California (Weise and Regelbrugge 1997). According to the model classifications, fuel models used in BehavePlus have been classified into four groups, based upon fuel loading (tons/acre), fuel height, and surface to volume ratio. Observation of the fuels in the field (on site) determines which fuel models should be applied in BehavePlus. The following describes the distribution of fuel models among general vegetation types for the standard 13 fuel models and the custom southern California fuel models:

• Grasses Fuel Models 1 through 3

• Brush Fuel Models 4 through 7, SCAL 14 through 18

• Timber Fuel Models 8 through 10

• Logging Slash Fuel Models 11 through 13

In addition, the aforementioned fuel characteristics were utilized in the recent development of 40 new fire behavior fuel models (Scott and Burgan 2005) developed for use in BehavePlus modeling efforts. These new models attempt to improve the accuracy of the standard 13 fuel models outside of severe fire season conditions, and to allow for the simulation of fuel treatment prescriptions. The following describes the distribution of fuel models among general vegetation types for the new 40 fuel models:

• Non-Burnable Models NB1, NB2, NB3, NB8, NB9

• Grass Models GR1 through GR9

• Grass-shrub Models GS1 through GS4

• Shrub Models SH1 through SH9

• Timber-understory Models TU1 through TU5

• Timber litter Models TL1 through TL9

• Slash blowdown Models SB1 through SB4



BehavePlus Fire Behavior Modeling Inputs

Vegetation/Fuels

To support the fire behavior modeling efforts conducted for this Fire Protection Plan, a fuel model was identified for the site to represent the mixed chaparral vegetation surrounding the site. While other vegetation types are located in the area and on site, mixed chaparral fuels represent the most significant wildfire threat for the proposed project. The mixed chaparral cover on and adjacent to the site was classified as Fuel Model SH5.

Weather

Fire behavior modeling conducted in support of this FPP utilized the guidelines and standards presented by the County of San Diego, Department of Planning and Land Use (San Diego County 2010). These guidelines identify acceptable fire weather inputs for extreme fire conditions during summer months and Santa Ana fire weather patterns. The County analyzed and processed fire weather from Remote Automated Weather Stations (RAWS) between April 15 to December 31 in order to represent the general limits of the fire season. Data provided by the County's analysis included temperature, relative humidity, and sustained wind speed and is categorized by weather zone, including Maritime, Coastal, Transitional, Interior, and Desert.

To evaluate potential fire behavior for the project site, Dudek utilized the BehavePlus (v. 5.0.5) fire behavior modeling software package to determine fuel moisture values and expected fire behavior for the site. The temperature, relative humidity, and wind speed data for the Desert weather zone (SANGIS 2013) were utilized for this FPP based on the project location. Reference fuel moistures were calculated in BehavePlus and were based on site-specific topographic data inputs. Fire behavior for the site was calculated using worst-case fuels, topography, and weather and included an assessment of potential fire burning cross-slope (5% slope) in chaparral fuel beds (Fuel Model SH5) with Summer (18 mph), Santa Ana (24 mph), and Peak (56 mph) sustained wind speeds. Table 1 summarizes the fuel moisture calculations utilized for this FPP.

Table 1
BehavePlus Fine Dead Fuel Moisture Calculation

Variable	Value
Dry Bulb Temperature	90 -109 deg. F
Relative Humidity	5 - 9%
Reference Fuel Moisture	1%
Month	Feb Mar Apr Aug Sep Oct
Time of Day	16:00 - 17:59
Elevation Difference	Level (within 1,000 ft.)

Table 1
BehavePlus Fine Dead Fuel Moisture Calculation

Variable	Value
Slope	0 - 30%
Aspect	West
Fuel Shading	Exposed (< 50% shading)
Fuel Moisture Correction	2%
Fine Dead Fuel Moisture	3%

Topography

The topography of the site is discussed in greater detail in the FPP. Slope is a measure of angle in degrees from horizontal and can be presented in units of degrees or percent. Slope is important in fire behavior analysis as it affects the exposure of fuel beds. Additionally, fire burning uphill spreads faster than those burning on flat terrain or down hill as uphill vegetation is pre-heated and dried in advance of the flaming front, resulting in faster ignition rates. Slope values for this site were measured from site topographic maps and are presented in units of percent.

The modeling locations on the west and east sides of the project site represent the maximum slope (5%) and are aligned with anticipated on-shore and Santa Ana winds (an approximately east-west alignment). These sites were selected based on the strong likelihood of fire approaching from the west during a late-season on-shore wind-driven fire and from the east during a Santa Ana wind-driven fire event. The fire behavior modeling input variables for the project site are presented in Table 2. Locations for each modeling run are presented graphically in Figure 4 of the FPP.

Table 2
BehavePlus Fire Behavior Modeling Inputs

Variables	Scenario 1 (Santa Ana)	Scenario 2 (On-shore)
Fuel Model	SH5	SH5
1h Moisture	3%	3%
10h Moisture	4%	4%
100h Moisture	5%	5%
Live Herbaceous Moisture	30%	30%
Live Woody Moisture	60%	60%
20-foot Wind Speed (upslope)	24, 56*	18
Wind Adjustment Factor	0.4	0.5
Slope Steepness	5%	5%

^{*}includes Santa Ana (24 mph) and peak (56 mph) sustained wind speeds



BehavePlus Fire Behavior Modeling Results

Three fire behavior variables were selected as outputs from the BehavePlus analysis conducted for the project site, and include flame length (feet), rate of spread (mph), and fireline intensity (BTU/feet/second). The aforementioned fire behavior variables are an important component in understanding fire risk and fire agency response capabilities. Flame length, the length of the flame of a spreading surface fire within the flaming front, is measured from midway in the active flaming combustion zone to the average tip of the flames (Andrews, Bevins, and Seli 2004). It is a somewhat subjective and non-scientific measure of fire behavior, is extremely important to fireline personnel in evaluating fireline intensity and is worth considering as an important fire variable (Rothermel 1983). Fireline intensity is a measure of heat output from the flaming front, and also affects the potential for a surface fire to transition to a crown fire. Fire spread rate represents the speed at which the fire progresses through surface fuels and is another important variable in initial attack and fire suppression efforts. The information in Table 3 presents an interpretation of these fire behavior variables as related to fire suppression efforts. The results of fire behavior modeling efforts are presented in Table 4 and identification of modeling run locations is presented graphically in Figure 4 of the FPP.

Table 3
Fire Suppression Interpretation

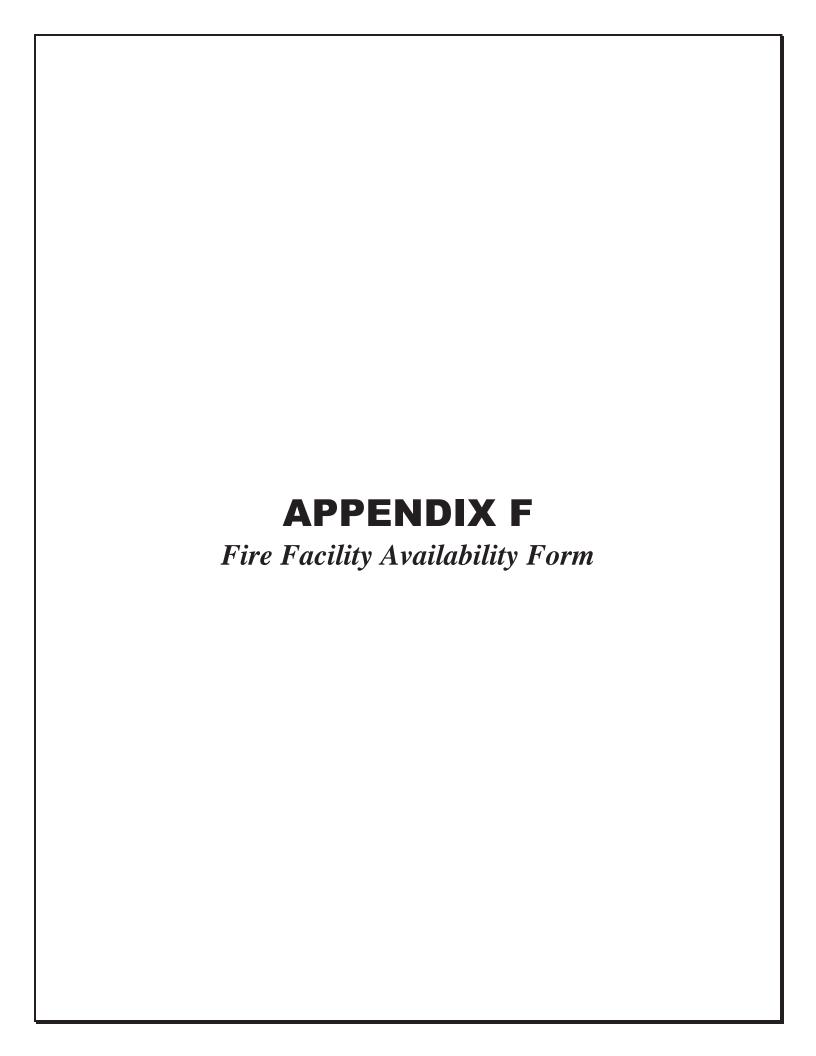
Flame Length (ft)	Fireline Intensity (Btu/ft/s)	Interpretations
Under 4 feet	Under 100 BTU/ft/s	Fires can generally be attacked at the head or flanks by persons using hand tools. Hand line should hold the fire.
4 to 8 feet	100-500 BTU/ft/s	Fires are too intense for direct attack on the head by persons using hand tools. Hand line cannot be relied on to hold the fire. Equipment such as dozers, pumpers, and retardant aircraft can be effective.
8 to 11 feet	500-1000 BTU/ft/s	Fires may present serious control problems torching out, crowning, and spotting. Control efforts at the fire head will probably be ineffective.
Over 11 feet	Over 1000 BTU/ft/s	Crowning, spotting, and major fire runs are probable. Control efforts at head of fire are ineffective.

Table 4
BehavePlus Fire Behavior Modeling Results

Fire Behavior Variable	Summer (18 mph Winds)	Santa Ana (24 mph Winds)	Peak (56 mph Winds)
Flame Length (feet)	25.0	29.2	46.2
Fireline Intensity (Btu/ft/s)	6,210	8,690	23,567
Surface Rate of Spread (mph)	2.2	3.1	8.5

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COUNTY OF SAN DIEGO DEPARTMENT OF PLANNING AND LAND USE: Zoning PROJECT FACILITY AVAILABILITY FORM, Fire

Please type or use pen					
	ORG				
Rugged Solar LLC 858-638-0999 Owner's Name Phone	ACCT				
16650 Via Esprillo	ACT				
Owner's Mailing Address Street	TASK				
San Diego CA	DATE AMT \$				
City State Zio					
	DISTRICT CASHIER'S USE ONLY				
SECTION 1. PROJECT DESCRIPTION TO BE COMPLETED BY APPLICANT					
A. Major Subdivision (TM) Specific Plan or Specific Plan Amendment Minor Subdivision (TPM) Cartificate of Compliance:	Assessor's Parcel Number(s) (Add extra if necessary)				
Boundary Adjustment Rezone (Reclassification) from to zone	see attached				
Major Use Permit (MUP), purpose: SOIST 13/171					
Time ExtensionCase No. Expired MapCase No.					
Other					
B. Residential Total number of dwelling units					
Communicial Gross floor area					
Industrial Gross floor area 7500 square reet	Thomas Bros. Page 1300 Grid F2				
Other Gross floor area	between Ribbwood and McCain Valley Rd				
C. Total Project acreage 765 Total lots Smallest proposed lot	Project address Street				
	Boulevard/Mtn. Empire 91905				
	Community Planning Area/Subregion Zip				
OWNER/APPLICANT AGREES TO COMPLETE ALL CONDITIONS DEQUIRED BY THE DISTRICT. October 22, 2014					
Applicant's Signature: D / Law / Law/814	October 22, 2014				
Address: 16650 Via Esprillo San Diego, CA					
Address: 16650 Via Esprillo San Diego, CA Phone: (858) 638-0999 (On completion of above, present to the district that provides fire protection to complete Section 2 and 3 below.)					
SECTION 2: FACILITY AVAILABILITY TO BE COMPLETED BY DISTRICT					
District name San Diego County Fine Authority					
Indicate the location and distance of the primary fire station that will serve the proposed project: 39912 Ribbon wood Rd.					
3.75 miles					
Project is in the District and eligible for service. Project is not in the District but is within its Sphere of Influence bounce.	dans number must apply for approvation				
Project is not in the District and not within its Sphere of Influence bout	indary .				
Project is not located entirely within the District and a potential boundary issue exists with the					
adequate or will be adequate to serve the proposed project. The expected emergency travel time to the amoust annient is					
adequate or will be adequate to serve the proposed project. The expected emergency travel time to the proposed project is minutes.					
Fire protection facilities are not expected to be adequate to serve the proposed development within the next five years. For the proposed development within the next five years. For the proposed development within the next five years.					
	THE STATE OF THE S				
SECTION 3. FUELBREAK REQUIREMENTS					
Note: The fuelbreak requirements prescribed by the fire distric clearing prior to project approval by the Depcri	t for the proposed project do not authorize any ment of Planning and Land Use.				
Within the proposed project 30-50 feet of clearing will be	and the state of t				
i I I ne croosed druect is located in a razadous wholano life area, and additional it is interest actilization of the companies of the compani					
Environmental mitigation requirements should be coordinated with the	e fire district to ensure that these requirements will not				
pose fire hazards.	1				
This Project Facility Availability Form is valid until final discretionary action is taken pur withdrawn, unlesses shorter expiration date is otherwise noted.	suant to the application for the proposed project or until it is				
Class CIMES PINE, DFN	1 858.495.5434 10/23/2014				
Autrorized signature First harrie and tale	Priorie Defe				
On completion of Section 2 and 3 by the District, applicant in Zoning Counter, Department of Planning and Land Use, 5201 F	S to submit this form with application to:				