



## **Construction Fire Prevention Plan**

# **Sycamore– Peñasquitos 230 Kilovolt Transmission Line Project**

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## 1. CONSTRUCTION FIRE PREVENTION PLAN DEFINITIONS

**a. ESP 113.1 SDG&E Wildland Fire Prevention & Fire Safety Plan (SDG&E ESP 113.1):**

This is an internal San Diego Gas & Electric (SDG&E) standard outlining practices and procedures for SDG&E activities occurring within areas of potential wildland fire threat within SDG&E's service territory.

**b. Fire Coordinator (FC):** An SDG&E employee who serves as liaison or agency representative to the fire agencies and other emergency services during an emergency and with other fire related activities in non-emergency situations.

**c. Fire Patrol:** Fire patrol(s) are personnel who are assigned the responsibility and accountability for fire prevention, risk management, early detection of fires, reporting and rapid extinguishment.

A "**designated**" Fire Patrol is a member of a work crew assigned responsibility and accountability for fire prevention, risk mitigation, early detection of fires, reporting and rapid extinguishment should one occur. This can be accomplished co-laterally with other work duties but must be ready to respond with appropriate fire equipment.

A "**dedicated**" Fire Patrol is a person(s) assigned duties associated with fire prevention and fire safety for a specific job or location, with appropriate training and equipment equivalent to the risk presented. This would be their sole duty while serving as a dedicated Fire Patrol, and are typically assigned to a fire engine or water tender, but not necessarily.

**d. Fire Tools:** References to "fire tools" pertains to firefighting tools which include; shovel, Pulaski, fire extinguisher, and five (5) gallon backpack pump. These tools are commonly required on project vehicles and work sites. Additional requirements maybe identified which increase that number of fire tools above what is found on the vehicles.

**e. Fire Threat Zone (FTZ):** An area within the SDG&E service territory which identifies the wildland fire threat on a scale of low to extreme. This is a rating based on a combination of potential fire behavior (wildland fuel) and expected fire frequency. SDG&E has established practices within the FTZ on how it will construct facilities and identifies certain wildland fire safety practices.

**f. At Risk Activity:** Project activities that present a risk of igniting a wildfire.

**g. Fire Potential Index (FPI):** This is a comprehensive assessment of fire risk, used as a tool for making operation & maintenance decisions related to fire prevention. The tool converts environmental, statistical, and scientific data into an easily understood forecast of short-term fire threat. The index is generated for a seven day forecast period for an assortment of geographic areas within the service territory. The 7-day forecast is used for planning purposes while the daily FPI is also used for work activities. The FPI is used to determine

the operating condition for each day (Normal, Elevated, or Extreme), definitions of each to follow.

- h. Normal Operating Condition:** It is considered “Normal” operating condition when the FPI is in any shade of green (*very low, low, or moderate*). All O&M activities can take place in the wildland areas of the service territory without additional fire risk management, as long as baseline fire equipment is available as prescribed in this plan. Note; the baseline fire equipment requirements meet or exceed all local, state, & federal requirements for working in the wildland areas
- i. Elevated Operating Condition:** It is considered “Elevated” operating level when the FPI is either yellow or orange (high or very high). Certain “at risk” O&M activities will require additional risk management (see Attachment 1: Fire Prevention Matrix) to perform those work activities.
- j. Extreme Operating Condition:** It is considered “Extreme” operating level when the FPI is red (extreme). No “at risk” activities should be conducted except for those activities which if, left undone present a greater risk than that involved with their accomplishment. Consultation with the On-duty Fire Coordinator is required to help make that determination and identify additional fire prevention measures required to reduce risk.
- k. Red Flag Warning (RFW):** A Red Flag Warning is issued for a stated period of time by the National Weather Service (NWS) using pre-determined criteria to identify particularly critical danger in a particular geographic area. All construction and maintenance activities shall cease during RFWs, as discussed in the Fire Plan. Certain variances may be available for activities that do not present a risk of starting a fire. Consultation with the On-duty Fire Coordinator is required to help make that determination and identify fire prevention measures required.
- l. Major Operation Worksite (MOW):** These work sites are typically large in size and include but are not limited to construction staging yards, tower construction sites, substation pads and any other area where construction work will be concentrated. The criteria for identifying MOW is the number of people, type of work, and duration occupied.
- m. Construction Fire Prevention Plan:** Also known as the Fire Plan. The Fire Plan is developed and implemented by SDG&E and its construction contractor to provide fire prevention guidance for a specific construction project.
- n. Project:** “Project” may be used interchangeably in place of the formal name of the project in the construction fire prevention plan.

## **2. PROJECT DESCRIPTION**

### **General location:**

The Proposed Sycamore-Peñasquitos 230 kilovolt (kV) Transmission Line Project (Project) is located within the City of San Diego and on the extreme northern portion of Marine Corps Air Station (MCAS) Miramar. The Project route consists of approximately 14-miles traversing through developed residential and commercial areas as well as undeveloped areas. The Project begins at the Sycamore Canyon Substation (SCS) located on the northern portion of MCAS Miramar and travels westerly through primarily along existing roadways in urban and industrial areas to the Peñasquitos Substation located at Carmel Mountain Road near Interstate-5. A Figure illustrating the Project route and the Fire Threat Zone is included as Attachment 2: Fire Threat Zone Map.

**Table 1: Fire Jurisdiction and Land Ownership**

<b>Ownership</b>	<b>Fire Suppression Responsibility</b>	<b>Approximate Miles in Project Area</b>	<b>Emergency Contact</b>
LRA	San Diego Fire Department	14	911
FRA	Miramar Fire Department	0.5	911

*(FRA, Federal Responsibility Area; LRA, Local Responsibility Area)*

### **Scope and Intent of Proposed Project:**

The Proposed Project includes the construction and operation of a new, approximately 14-mile 230 kV transmission line. The Proposed Project is comprised of four segments based upon the type and location of proposed facilities. The Proposed Project segments are listed below in Table 2, Proposed Project Transmission Line Segments.

**Table 2: Proposed Project Transmission Line Segments**

Segment No.	Length (miles)	Description of Work <sup>1</sup>
A	0.74	Construction of approximately 0.74 mile of new 230 kV transmission line and relocated 138 kV power line on new tubular steel poles (mono-pole structures) and steel H-frame structures all within existing SDG&E ROW located between the existing Sycamore Canyon Substation and Stonecroft Trail. Construction of one new cable pole at the transition point from overhead to underground.
B	11.45	Construction of approximately 11.45 miles of 230 kV underground transmission line in existing roads and bridges.
C	2.2	Install approximately 2.2 miles of new 230 kV transmission line and all-dielectric self-supporting (ADSS) communication cable on existing 230 kV tubular steel poles within existing SDG&E ROW from Scranton Road to Peñasquitos Substation. Construction of one new cable pole at the transition point from underground to overhead.
D	NA	Minor modifications of the existing Sycamore Canyon and Peñasquitos Substations to allow for connection of the new 230 kV transmission line.
Notes: <sup>1</sup> Description of work is based upon preliminary engineering and subject to minor changes.		

**Project Timeframes:** The project is anticipated to begin October 2016 and end in June 2018. The actual construction schedule is dependent upon licensing and permitting for the Project. Once construction is initiated, construction will continue until the Project is complete. Work on the Project will take place during all seasons within the proposed time frames. The FPI will determine the fire risk level and therefore the fire prevention measures for each activity performed during construction of the Project.

**Work activities that will take place in the FTZ and areas of high fire danger fuels may include:**

- Grading for road maintenance and structure foundations
- Hazard reduction; mowers & weed eaters
- Existing wood structure removal
- Excavation for new foundation steel pole/tower placement
- Blasting for excavation
- Digging & setting direct bury new steel structures
- Erection of new structures

- Micro-pile foundations
- Operation of generators, compressors, and other internal combustion engines.
- Operation of backhoes, augers, & other rock striking equipment
- Welding, grinding, & cutting of steel.
- Conductor stringing
- Reconductoring
- Cable pull operations
- Helicopter operations
- Construction meetings at the staging yard
- Environmental monitoring

### **3. PROJECT FIRE RISKS AND FIRE PREVENTION MEASURES:**

During the construction phase of the Project, SDG&E and its contractors will implement the fire prevention measures listed in the **Attachment 1: Fire Prevention Matrix**. Construction activities may take place both inside and outside the FTZ shown on Attachment 2: Fire Threat Zone Map where areas of wildland fuels exist. The Work Restriction Fire Prevention Matrix is based on the Fire Risk & Fire Prevention Matrix found in ESP 113.1 and may contain additional fire prevention measures based on project specific risks. Activity Risks identified after Project initiation shall be added to the Work Restriction Fire Prevention Matrix with appropriate fire prevention measures as determined by the Fire Coordinator and/or in coordination with the appropriate fire agency with jurisdictional responsibility.

**Substations:** Work inside substation fence lines poses little to no wildland fire risk due to its distance from wildland fuels. Work may proceed at SCS and PS during “Normal” and “Elevated” FPI levels without restrictions or additional fire prevention measures. During “Extreme” and “RFW” FPI, work may continue after consultation with the fire coordinator.

**Undergrounding within existing paved roadways:** Work along existing paved roads poses limited wildland fire risk due to its typical distance from wildland fuels. See **Attachment 1: Fire Prevention Matrix** for work restrictions during “Normal”, “Elevated” and “Red Flag” FPI levels.

### **4. MAJOR OPERATION WORK (MOW) SITES:**

Major operations work sites which are located in the SDG&E Wildland Fire Area:

**Table 3: Major Operations Work Sites**

<b>Name</b>	<b>Fire Agency with Jurisdiction</b>	<b>Location</b>	<b>Acreage</b>
<b>Stonebridge Parkway</b>	San Diego City	15000 Stonebridge Parkway (cross street of Deprise Cove)	4
<b>Shire</b>	San Diego City	9750 Summer Ridge Road (cross street of Camino Santa Fe)	7
<b>Driving Range</b>	San Diego City	5500 Nancy Ridge Drive (cross of Carroll Canyon Road)	1
<b>Penasquitos</b>	San Diego City	Within Existing Substation	5
<b>Sycamore</b>	San Diego City	Within Existing Substation	5
<b>Site 1a</b>	San Diego City	Conrock Road off of Black Mountain Road	1.43
<b>Site 1b</b>	San Diego City	Conrock Road off of Black Mountain Road	2.98
<b>Site 2</b>	San Diego City	Carrol Canyon Road off of Camino Ruiz	1.25
<b>Site 3</b>	San Diego City	9255 Camino Santa Fe	2.62
<b>Stowe</b>	City of Poway	1.6 miles north of the Sycamore Canyon Substation	3.6
<b>Carmel Valley Rd</b>	San Diego City	Northeast corner of intersection of Camino Del Sur and Carmel Valley Road	7.2
<b>Evergreen Nursery</b>	San Diego City	North of the intersection of Segments B and C	3.5
<b>San Luis Rey</b>	City of Oceanside	Within Existing Substation	5
<b>Mission</b>	San Diego City	Within Existing Substation	5

The following precautions will take place at each major operations work area as depicted on Attachment 2: Fire Threat Zone Map:

- MOW will be assessed by the contract administrator (CA) for wildland fire risk prior to beginning operations at the site.
- Wildland fire risk associated with helicopter landing, lifting, and/or fueling adjacent to wildland fuels will be assessed at each MOW by the CA prior to beginning operations at the site.
- Hazard reduction inside and around the perimeter of the MOW will be performed according to environmental specifications.



- Other fire prevention measure may include regular watering to reduce fire potential danger.
- Smoking, welding, and fueling of equipment will be done only in designated areas with appropriate fire protection measures as described in the **Attachment 1: Fire Prevention Matrix**.
- Parking will be permitted in areas absent of vegetation within an MOW
- Each site will have a minimum of one fire box/cache with tools for 5 personnel (i.e., 3 shovels & 2 Pulaski's). Additional tools and equipment may be required as determined by the CA in addition to what is carried on vehicles.
- Additional tools, equipment, and requirements identified during inspections will be documented in this Fire Plan and posted at the project field office.

## **5. OTHER PROJECT TOOLS & EQUIPMENT REQUIREMENTS:**

The following equipment **may be required** to be staged as proximate as possible to on-going Project activities as determined by the CA. These items should be strategically placed to afford the best opportunity to help to prevent ignitions and expeditiously extinguish any fire resulting from Project activities.

- Fire engine with minimum of 150 gallons water and a firefighter.
- Water tank (water buffalo) with at least 50 gallons of water, for filling back pumps.
- When water source (e.g. fire engine, tender or tank) is used for fire stand-by, it must have enough hose to reach worksite.

Water trucks may be used for dust suppression and wetting of vegetation prior to vegetation management, as appropriate.

## **6. AGENCY SPECIFIC REQUIREMENTS:**

(Refer to Section 2 for Agencies involved)

**San Diego Fire Departments:** None

**Miramar Fire Department:** None

## **7. RED FLAG WARNINGS (RFW) AND OTHER CRITICAL FIRE DECLARATIONS (CFD):**

When there is a notice of a Red Flag Warning, the FPI will normally default to "FPI - Extreme". This applies for the specific weather zone involved and lasts for the entire duration of the RFW/CFD. Project managers, CA's, and supervisors will be responsible for exchanging their contact information with Grid Operations, to insure they are notified of these events. It is the responsibility of supervisors and crew members to know and

communicate the details of a RFW/CFD before work begins to minimize the risks associated with the RFW/CFD. At the end of the RFW/CFD, confirmation should be obtained from the on-call Fire Coordinator [REDACTED] that work can begin again and if restrictions are imposed.

At times, fire danger declarations can be made by any jurisdictional fire department for a given period of time. As soon as these declarations are shared with the Project Manager and CA, they will be communicated to Project personnel. Restrictions and fire prevention measures will apply until the declarations are lifted.

During periods of FPI - Extreme, work restrictions may be in place (see Attachment 1: Fire Prevention Matrix). Unfinished work, repairs, or other activities may be allowed during this period if the facility/equipment poses a greater fire risk if left in its current state. The CA will consult with the FC in these situations.

Construction in the work area shall cease in the event of a fire within 1,000 feet of a work area or as otherwise requested by local fire authorities. Should a wildfire occur within one mile of a work area, helicopters in use by SDG&E shall immediately cease construction activities and not restart aerial operations until authorized by the appropriate fire agency.

## **8. TRAINING REQUIREMENTS FOR SDG&E & CONTRACT PERSONNEL**

Prior to the start of construction activities, all Project construction personnel (*SDG&E & Contractors*) will receive training on Fire Prevention and Safety. This training will be provided by a qualified instructor. Training will include:

- Fire prevention
- Fire detection & reporting
- Extinguishment tools and methods
- Initial attack firefighting

Additionally, prior to start of construction, all project personnel will receive a presentation on the contents of the Fire Plan. All construction personnel shall be provided a hard hat sticker listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on hard hat stickers shall be updated and redistributed to construction personnel. Construction personnel will receive refresher training as necessary and no less frequent than every 12-months after Project initiation.

## **9. TAILBOARDS, INSPECTIONS, REVIEW & COMPLIANCE**

Construction supervisors will be responsible for reviewing the contents of the Fire Plan with construction personnel throughout the duration of the project. Daily safety tailboard session should include an assessment of the day's FPI level and discussion of the fire risk for the day.

The CA shall perform periodic inspections of equipment and worksites to verify compliance with this Fire Plan. Compliance with the Fire Plan is mandatory. Monitoring compliance with this Fire Plan is everyone's responsibility. Project management should identify who has authority to shut down any operation that presents an inappropriate amount of fire risk or hazard until it can be properly addressed.

Violations of the requirements of this Fire Plan will be addressed immediately. Appropriate consequences for repeated or negligent actions in respect to this Fire Plan will be forwarded to the appropriate management for action.

All project-related vegetation fires, regardless of size, shall be promptly reported to the fire agency having jurisdiction. The project manager, CA, and fire coordinator shall also be immediately notified.

## **10. COMMUNICATIONS PLAN**

The ability to communicate with all Project personnel working within the project right of way and to contact emergency first responders is critical for fire and personnel safety. Cell phone, satellite phone, and/or radios are all acceptable. All personnel must know emergency communication procedures while on the project. 911 is the primary first responder contact number for all incidents. All fires will be reported to the fire agencies with jurisdiction in the project area immediately upon discovery. Daily communication checks will be performed by CA, foreman or site supervisor prior to initiating construction activities. All Project personnel will have access to a communication device, such as a cell phone, satellite phone or radio.

## **11. REFERENCES:**

California Public Utilities Commission. 2016. Sycamore to Peñasquitos 230-KV Transmission Line Project Final Environmental Impact Report. March 2016.



## **Attachment 1: Fire Prevention Matrix**



SX-PQ 230 kV Transmission Line Project – Fire Prevention Matrix

ACTIVITY	TOOLS & EQUIPMENT	Operating Level Conditions (FPI)		
		NORMAL	ELEVATED	EXTREME or RFW <sup>1</sup>
<b>A designated fire patrol must be assigned at all levels and jobs unless otherwise noted.</b>				
<b>Vehicles, Roads &amp; Pads</b>				
Privately owned vehicles (POV)	A privately own vehicle used as transportation to a yard and parking in a POV area.	No tools required when parked in designated area (If the vehicle is brought out to sites it must have the same tools as other project vehicles).	No Change	No Change
Project vehicles	Company owned vehicles	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump. Never park on top of vegetation.	No Change	No Change
Diesel powered vehicles	Diesel-fueled commercial motor vehicles with gross vehicle weight ratings greater than 10,000 pounds	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump. Never park on top of vegetation. No idling for more than five minutes except as permitted under 13 CCR §2485.	No Change	No Change
Road and pad construction, grading, and maintenance	Grader, bulldozer, & other steel blade/tracked equipment.	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50'.	Implement Normal requirements and 150 gallons (minimum) of water with pump, hose, & nozzle. Water tender, water buffalo or other water tank. Dedicated fire patrol.	No Work
Monitoring and Surveys: Vegetation, Wildlife, Cultural, etc.	No tools or mechanized equipment	No requirements (See POV & Project vehicles tools requirements).	No Change	No Change
Transmission Line underground construction work adjacent to wildland areas	Equipment used for trenching, vault installation, splicing, conductor installation and other underground activities	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50'.	Implement Normal requirements and 150 gallons (minimum) of water with pump, hose, & nozzle. Water tender, water buffalo or other water tank. Dedicated fire patrol.	No Work

<sup>1</sup> Variances may be approved if unfinished work poses a greater risk if left in its current state.

SX-PQ 230 kV Transmission Line Project – Fire Prevention Matrix

ACTIVITY	TOOLS & EQUIPMENT	Operating Level Conditions (FPI)		
		NORMAL	ELEVATED	EXTREME or RFW <sup>1</sup>
Transmission Line underground construction work NOT adjacent to wildland areas	Equipment used for trenching, vault installation, splicing, conductor installation and other underground activities	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50'.	No Change	No work unless authorized by the PM or CA with evidence of written consultation from Fire Coordinator.
<b>Vegetation Management</b>				
Chain saw use and fueling	Chain saw	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50', the shovel must be within 25' or a A:B:C rated fire extinguisher in the operators immediate possession.	No Change	No Work
Chipping vegetation off paved roads	Chippers	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50'.	Implement Normal requirements and 150 gallons (minimum) of water with pump, hose, & nozzle. Water tender, water buffalo or other water tank.	No Work
Vegetation Management using hand tools	No Mechanical equipment.	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50'.	No Change	No Work
Vegetation Management using mechanized equipment	Weed eater and mower.	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50'.	Implement Normal requirements and 150 gallons (minimum) of water with pump, hose, & nozzle. Water tender, water buffalo or other water tank.	No Work
<b>Equipment Repair, Replacement &amp; Installation</b>				
Pole Removal/Replacement (direct bury)	Hand tools, augers, jack hammers, compressors, etc.	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50'. Must have 5' of clearance on all sides and no combustible material underneath; approved spark arrestors on exhaust.	Implement Normal requirements and 150 gallons (minimum) of water with pump, hose, & nozzle. Water tender, water buffalo or other water tank. Dedicated fire patrol	No Work



SX-PQ 230 kV Transmission Line Project – Fire Prevention Matrix

ACTIVITY	TOOLS & EQUIPMENT	Operating Level Conditions (FPI)		
		NORMAL	ELEVATED	EXTREME or RFW <sup>1</sup>
Pole and Tower Foundation including micropile and pier	Drill, compressor, back-hoe, etc.	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50'. Must have 5' of clearance on all sides and no combustible material underneath; approved spark arrestors on exhaust.	Implement Normal requirements and 150 gallons (minimum) of water with pump, hose, & nozzle. Water tender, water buffalo or other water tank. Dedicated fire patrol	No Work
Hotwork: Welding, cutting and/or grinding of metal or other spark producing activities.	Welder, grinder, saw; gas, air or electric powered.	All welding, cutting and other hot work will follow a hot work program that will at minimum meet the standards set in NFPA 51B, CFC Chapter 35 and have 1 round point shovel, 1 Pulaski, 1 (5) gallon backpack pump within 50'; 10' of clearance, surrounding fuels (e.g. vegetation) will be wet down prior to performing hot work and kept sufficiently wet to prevent ignitions, A designated "Fire Patrol" must be present during work and 1 hour after hot work is complete.	All welding, cutting and other hot work will follow a hot work program that will at minimum meet the standards set in NFPA 51B, CFC Chapter 35 and have 1 round point shovel, 1 Pulaski, 1 (5) gallon backpack pump within 50'; 10' of clearance, surrounding fuels (e.g. vegetation) will be wet down prior to performing hot work and kept sufficiently wet to prevent ignitions, A dedicated "Fire Patrol" must be present during work and 1 hour after hot work is complete.	No Work
Working on or in proximity to energized equipment and facilities, including removal and replacement and new installations	Conductor, transformers, switches, etc.	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50'.	Implement Normal requirements 150 gallons (minimum) of water with pump, hose, & nozzle. Water tender, water buffalo or other water tank. Dedicated fire patrol.	No Work
Reconductoring and new conductor stringing (adjacent to de-energized equipment and lines)	Pull & travel equipment.	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50' of pull and feed site.	Implement Normal requirements post lookouts at strategic locations.	No Work

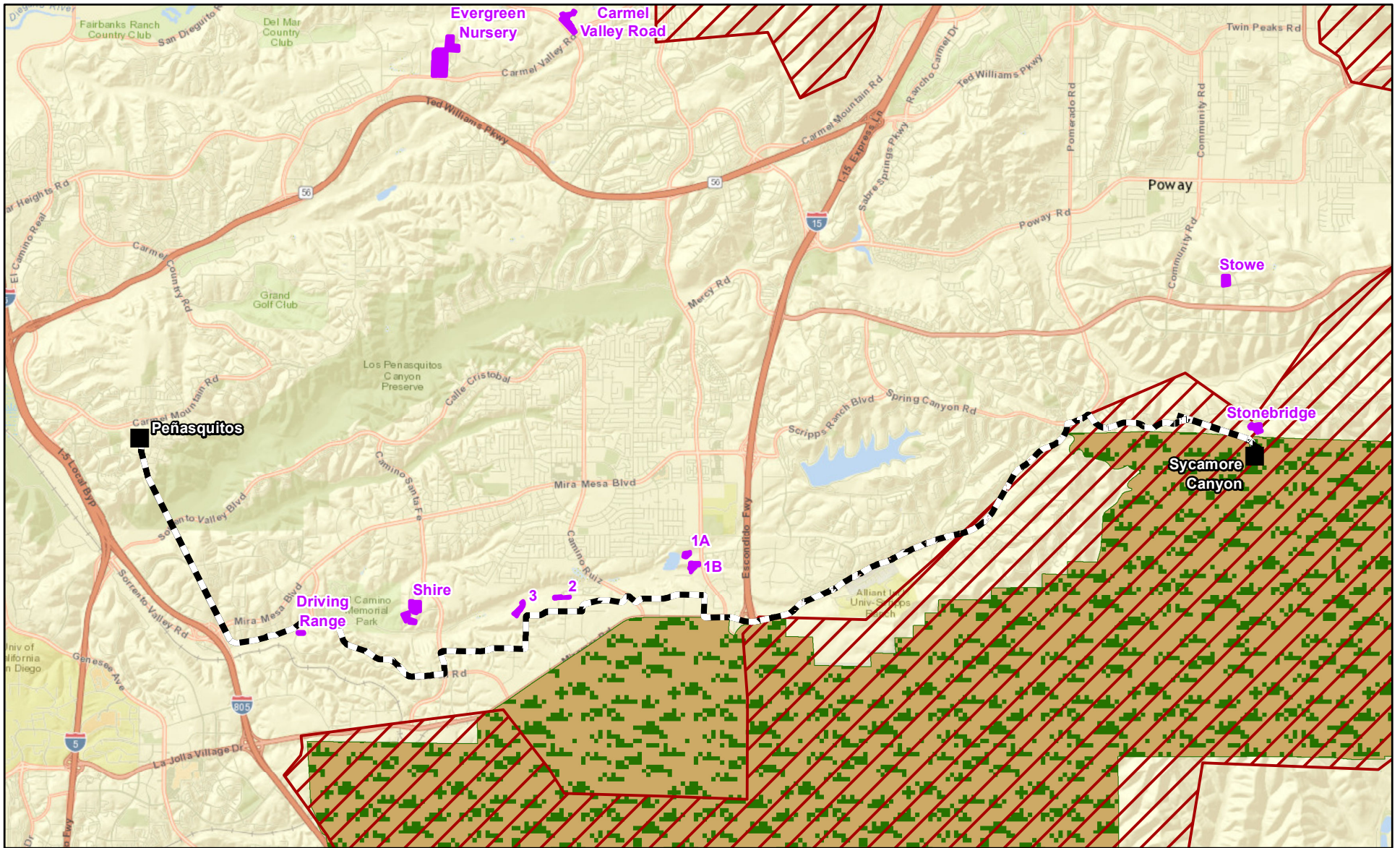
SX-PQ 230 kV Transmission Line Project – Fire Prevention Matrix

ACTIVITY	TOOLS & EQUIPMENT	Operating Level Conditions (FPI)		
		NORMAL	ELEVATED	EXTREME or RFW <sup>1</sup>
Reconductoring and new conductor stringing (adjacent to energized equipment and lines)	Pull & travel equipment.	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50'. Post lookouts at strategic locations.	Implement Normal requirements and 150 gallons (minimum) of water with pump, hose, & nozzle. Water tender, water buffalo or other water tank. Dedicated fire patrol.	No Work
Energizing equipment, segments, and circuits		1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump. Post observers at strategic locations with communication. Patrol energized segment.	Implement Normal requirements and 150 gallons (minimum) of water with pump, hose, & nozzle. Water tender, water buffalo or other water tank. Dedicated fire patrol.	No Work
Internal combustion engines, equipment and machinery - off paved roads	Generators, Compressors, and any piece of equipment with a combustion engine.	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50'; generators, compressors, and any piece of equipment with a combustion engine must have 5' of clearance on all sides and no combustible material underneath; approved spark arrestors on exhaust.	Implement Normal requirements and 150 gallons (minimum) of water with pump, hose, & nozzle. Water tender, water buffalo or other water tank. Dedicated fire patrol.	No Work
Helicopter operations including picking and setting equipment/ poles/ towers in high risk wildland areas		1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50' of the work site on the ground.	Implement Normal requirements and 150 gallons (minimum) of water with pump, hose, & nozzle. Water tender, water buffalo or other water tank. Dedicated fire patrol	No Work
Smoking	Cigarettes & Cigars (Electronic Cigarettes can be used anywhere).	When permitted smoking will be in designated areas only within a MOW, 10' cleared area, with ash can and no butts left on the ground.	No Change	Never

SX-PQ 230 kV Transmission Line Project – Fire Prevention Matrix

ACTIVITY	TOOLS & EQUIPMENT	Operating Level Conditions (FPI)		
		NORMAL	ELEVATED	EXTREME or RFW <sup>1</sup>
Rock drilling and splitting	Rock drills, breakers, and blasting systems	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50' of each worksite or as permitted. Blasting operations permits and protocols.	Implement Normal requirements and 150 gallons (minimum) of water with pump, hose, & nozzle. Water tender, water buffalo or other water tank at each worksite. Dedicated fire patrol	No Work
Equipment and vehicle fueling	Fuel trucks	1 round point shovel, 1 pulaski, 1 (5) gallon backpack pump within 50', and a B:C rated fire extinguisher	No change	Only within MOWs
<p><b>Spark Arresters:</b> All internal combustion engines shall have approved spark arresters; Engines used to provide motive power for trucks, tractors, buses, and passenger vehicles, except motorcycles, are exempt if the exhaust system is equipped with a muffler; Turbocharged engines are exempt.</p>				
<p><b>Delivery Vehicles:</b> Defined as vehicles that will drop off equipment or material and leave (e.g. water tankers, postal trucks); these vehicles do not need to be equipped with fire tools, but drivers need to follow all SEAP mandated procedures while accessing the site.</p>				

**Attachment 2: Fire Threat Zone Map**






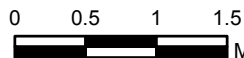
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**Sycamore to Peñasquitos 230 kV Transmission Line Project**  
**Fire Threat Zone Map**  
**Attachment 2**

SDG&E is providing this map with the understanding that the map is not survey grade. Certain technology used under license from AT&T Intellectual Property I, L.P. Copyright ©1998 – 2007 AT&T Intellectual Property 1, L.P. All Rights Reserved.

- Substation
- Proposed Route
- Potential Staging Yard Locations
- Fire Threat Zone
- MCAS Miramar

N  
  
 Miles