FINAL – REVISION 2

Fire Management Plan

West of Devers Upgrade Project
Riverside and San Bernardino Counties, California

Prepared for

Southern California Edison

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Prepared by

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Fire Management Plan Checklist

Applicable Agencies:

- ☒ Bureau of Land Management
- ☒ CAL FIRE San Bernardino
- ☒ California Public Utilities Commission
- ☒ City of Grand Terrace Fire Department
- ☒ City of Redlands Fire Department
- ☒ County of Riverside Fire Department
- ☒ City of Banning Fire Department
- ☒ CAL Fire Riverside
- ☒ Morongo Fire Department
- ☒ City of San Bernardino Fire Department
- ☒ City of Colton Fire Department
- ☒ City of Loma Linda Fire Department
- ☒ City of Calimesa Fire Department
- ☒ City of Beaumont Fire Department

Applies in the Following Areas:

- ☒ BLM Lands
- ☒ Morongo Reservation
- ☒ San Bernardino County
- ☒ Coachella Valley Multiple Species Habitat Conservation Plan
- ☒ Western Riverside Multiple Species Habitat Conservation Plan
- ☒ Riverside County

Applies to the Following Project Components:

- ☒ Transmission Line
- ☒ Subtransmission
- ☒ Telecom
- ☒ Substations
- ☒ Distribution
- ☒ Construction Yards

Addresses the Following Measures:

FEIR/FEIS MM WF-1a Prepare and Implement a Fire Management Plan

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Acronyms and Abbreviations

BLM	Bureau of Land Management
CAL FIRE	California Department of Forestry and Fire Protection
CPUC	California Public Utilities Commission
FEIR	Final Environmental Impact Report
FHSZ	Fire Hazard Severity Zone
kV	kilovolt(s)
MM	mitigation measure
Morongo Reservation	Reservation Trust Lands of the Morongo Band of Mission Indians
NWS	National Weather Service
Plan	Fire Management Plan
Project	West of Devers Upgrade Project
PWD	Person with Disabilities
ROW	right-of-way
SCE	Southern California Edison
WF	Wildfire
WOD	West of Devers

SECTION 1

Introduction

Southern California Edison (SCE) proposes to construct the West of Devers (WOD) Upgrade Project (Project) to increase the power transfer capability of the WOD 220-kilovolt (kV) transmission lines between Devers, El Casco, Vista, and San Bernardino substations. The Project is needed to facilitate the full deliverability of new electric generation resources being developed in eastern Riverside County, in an area designated by the California Independent System Operator for planning purposes as the Blythe and Desert Center areas. The Project, planned to be operational by 2021, would upgrade the existing WOD transmission line system by replacing the existing WOD 220-kV transmission lines and associated structures with higher-capacity transmission lines and structures and making telecommunication improvements.

This Fire Management Plan (Plan) for the WOD Project presents the activities to be conducted to support compliance with the measure defined in Section 1.4. Compliance with the measure listed in Section 1.4 will reduce the potential for fire impacts to residential, commercial, recreational, and public property. This Plan addresses fire prevention, fire safety, and fire-suppression methods that may be used during construction activities to the extent that is safe and feasible.

1.1 Project Overview

The Project will upgrade the existing WOD system by replacing existing 220-kV transmission lines and associated structures with new, higher-capacity 220-kV transmission lines and structures, modifying existing substation facilities, removing and relocating existing subtransmission (66-kV) lines, removing and relocating existing distribution (12-kV) lines, and making various telecommunication improvements. In particular, the Project will:

- Upgrade substation equipment within SCE's existing Devers, El Casco, Etiwanda, San Bernardino, and Vista substations in order to accommodate continuous and emergency power on the upgraded WOD 220-kV transmission lines. Activities related to substation upgrades will take place within the existing, disturbed fence lines of the substations and are not addressed further in this Plan.
- Remove and upgrade the existing 220-kV transmission lines and structures primarily within the existing WOD corridor as follows:
  - Segment 1 would be approximately 3.5 miles long and extend south from San Bernardino Substation to the San Bernardino Junction. It would include the following existing 220-kV transmission lines: Devers–San Bernardino, Etiwanda–San Bernardino, San Bernardino–Vista, and El Casco–San Bernardino.
  - Segment 2 would be approximately 5 miles long and extend west from the San Bernardino Junction to Vista Substation. It would include the following existing 220-kV transmission lines: Devers–Vista No. 1 and Devers–Vista No. 2.
  - Segment 3 would be approximately 10 miles long and extend east from the San Bernardino Junction to El Casco Substation. It would include the following existing 220-kV transmission lines: Devers–Vista No. 1, Devers–Vista No. 2, El Casco–San Bernardino, and Devers-San Bernardino.
  - Segment 4 would be approximately 12 miles long and extend east from the El Casco Substation to San Gorgonio Avenue in the City of Banning. It would include the following existing 220-kV transmission lines: Devers–Vista No. 1, Devers–Vista No. 2, Devers–El Casco, and Devers–San Bernardino.

  - Segment 5 would be approximately 9 miles long and extend east from San Gorgonio Avenue in the City of Banning to the eastern limit of the Reservation Trust Lands of the Morongo Band of Mission Indians (Morongo Reservation) at Rushmore Avenue. It would include the following existing 220-kV transmission lines: Devers–Vista No. 1, Devers–Vista No. 2, Devers–El Casco, and Devers–San Bernardino.
  - Segment 6 would be approximately 8 miles long and extend east from the eastern boundary of the Morongo Reservation to Devers Substation. It would include the following existing 220-kV transmission lines: Devers–Vista No. 1, Devers–Vista No. 2, Devers–El Casco, and Devers–San Bernardino.
- Remove a portion (approximately 2 miles) of the existing San Bernardino–Redlands–Timoteo and San Bernardino–Redlands–Tennessee 66-kV Subtransmission Lines from within the existing WOD right-of-way (ROW) and reconstruct as follows:
  - The relocated San Bernardino–Redlands–Timoteo 66-kV Subtransmission Line would be approximately 2 miles long and would reconnect to the San Bernardino–Redlands–Timoteo 66-kV Subtransmission Line inside Timoteo-Substation.
  - The relocated San Bernardino–Redlands–Tennessee 66-kV Subtransmission Line would be approximately 3.5 miles long and would reconnect to the San Bernardino–Redlands–Tennessee 66-kV Subtransmission Line at Barton Road.
- Remove a portion of the existing Dental and Intern 12-kV distribution circuits within the WOD ROW and relocate the circuits as follows:
  - The relocated Dental 12-kV Distribution Circuit would be approximately 1.5 miles long and would reconnect to the existing Dental 12-kV circuit.
  - The relocated Intern 12-kV Distribution Circuit would be approximately 2.25 miles long and would reconnect to the Intern 12-kV circuit.
- Install telecommunication lines and equipment for the protection, monitoring, and control of transmission lines and substation equipment.

The Project is currently in construction and is projected to be operational and in service by the end of 2021.

1.2 Project Location

The Project crosses the cities of Banning, Beaumont, Calimesa, Colton, Grand Terrace, Loma Linda, Palm Springs, Rancho Cucamonga, Redlands, San Bernardino, and Yucaipa, as well as unincorporated areas of Riverside and San Bernardino counties. The transmission corridor passes over Interstate 215 in San Bernardino County, as well as State Route (SR) 60, SR 79, SR 243, and SR 62 in Riverside County, and runs approximately parallel to the Interstate 10 corridor for the majority of the corridor in both San Bernardino and Riverside counties (Figure 1-1).

1.3 Agency Involvement

Lead agencies have discretionary approval over the Project and are responsible for reviewing aspects of the measures documented in this Plan. The California Public Utilities Commission (CPUC) is the state lead agency responsible for compliance with the California Environmental Quality Act. The Bureau of Land Management (BLM) is the federal lead agency responsible for compliance with National Environmental Policy Act. Identified materials or documentation will be provided to the CPUC and BLM in accordance with the Project requirements (Section 1.4).

In addition, the contents of this Plan were the result of close coordination with several fire agencies that act as the ultimate authorities regarding proper fire prevention and fire safety, and that are ultimately responsible for fighting wildland and other types of fires. In accordance with the Project requirement (Section 1.4) this Plan and subsequent revisions, if necessary, are subject to review and approval by the following fire agencies:

- California Department of Forestry and Fire Protection (CAL FIRE) San Bernardino County
- CAL FIRE Riverside County
- Morongo Fire Department
- County of San Bernardino Fire Department
- City of Colton Fire Department
- City of Grand Terrace Fire Department (San Bernardino County Fire Department)
- City of Loma Linda Fire Department
- City of Redlands Fire Department
- City of Calimesa Fire Department
- County of Riverside Fire Department
- City of Beaumont Fire Department
- City of Banning Fire Department (Riverside County Fire Department)
- BLM

In March 2018, SCE provided a draft version of this Plan to the Riverside and San Bernardino county fire departments and local municipal fire agencies with jurisdiction over areas designated as Very High or High Fire Hazard Severity Zone (FHSZs), where the Project is located. SCE incorporated all comments in consultation with CAL FIRE, BLM, and the Morongo Fire Department.

1.4 Measures

This Plan addresses Mitigation Measure (MM) Wildfire (WF)-1a from the Final Environmental Impact Report[1] (FEIR) and Final Environmental Impact Statement (BLM, 2016), as presented in the Certificate of Public Convenience and Necessity (CPUC, 2016b) and the record of decision (ROD) (BLM, 2016b). A Fire Management Plan is listed as a submittal requirement for MM WF-1a.

> ***Prepare and implement a Fire Management Plan.*** *A Project-specific fire prevention plan for both construction and operation of the project shall be prepared by SCE and submitted for review prior to initiation of construction. The draft copy of this Plan is to be provided to each fire agency at least 90 days before the start of any construction activities in areas designated as Very High or High Fire Hazard Severity Zones. Plan reviewers shall include CPUC, BLM, CAL FIRE, San Bernardino and Riverside Counties, and local municipal fire agencies with jurisdiction over areas where the project is located. Comments on the Plan shall be provided by SCE to all other participants, and SCE shall resolve each comment in consultation with CAL FIRE, BLM, and the Morongo Fire Department, as appropriate. The final Plan shall be approved by these agencies at least 30 days prior to the initiation of construction activities. SCE shall fully implement the Plan during all construction and maintenance activities.*
>
> *A project Fire Marshal or similar qualified position shall be established by SCE to enforce all provisions of the Fire Management Plan as well as perform other duties related to fire detection, prevention, and suppression for the project. SCE shall monitor construction activities to ensure implementation and effectiveness of the plan.*

[1] For the purpose of this Plan, "FEIR" refers to the FEIR (CPUC, 2015) and Addendum to the FEIR (CPUC, 2016a).

The plan shall include at a minimum SCE's Specification E-2005-104 (Transmission line Project Fire Plan), including any updates and amendments, and other requirements specified below.

The plan should recognize and prepare for the high probability that fast moving, wind driven wildfires will burn adjacent or through the Proposed Project with some regularity as the result of severe fire weather conditions, flash fuels such as provided by perennial grasslands, and abundant ignition sources. Wind driven fires can quickly overcome operational and maintenance crews, placing their health and safety at risk.

The plan shall cover:

- *The purpose and applicability of the plan;*
- *Responsibilities and duties;*
- *Preparedness training and drills;*
- *Procedures for fire reporting, response, and prevention that include:*
  - *Identification of daily site-specific risk conditions*
  - *The tools and equipment needed on vehicles and to be on hand at sites*
  - *Reiteration of fire prevention and safety considerations during tailboard meetings*
  - *Daily monitoring of the Red Flag Warning System with appropriate restrictions on types and levels of permissible activity,*
- *Coordination procedures with BLM and San Bernardino and Riverside County fire officials.*
- *Crew training, including fire safety practices and restrictions.*
- *Method for verification that plan protocols and requirements are being followed.*

SCE Specification E-2005-104 is provided in Appendix B to ensure compliance with the letter of MM WF-1a which states, "The plan shall include at a minimum SCE's Specification E-2005-104 (Transmission line Project Fire Plan), including any updates and amendments, and other requirements specified below." However, as described in Section 1.1(B) of Specification E-2005-104, "The intent of this Specification is to provide an overall technical reference for the Work as defined in the Project Specification. However, not all sections of this Specification may be applicable to every Project. The Project Specification shall define the specific Project Job requirements and shall be the master document in regards to this Specification. In all cases where this Specification is in conflict with the Project Specification, the Project Specification shall apply." This Fire Management Plan, which was developed in cooperation with SCE and the State and local fire agencies and using Specification E-2005-104 as a reference, serves as the Project Specification, as provided for in Section 1.1(C) which states, "Deviation from this Specification shall not be permitted unless so described in the Project Specification or approved by Edison's Construction Representative."

1.5 Plan Purpose

This Plan was prepared to satisfy MM WF-1a, which primarily addresses the risk of wildland fire initiated by construction activities. The primary purpose of this Plan is to describe the measures that will be taken to *prevent* the start of wildland fires as a result of construction activities and the steps that will be taken if a fire is initiated by construction or observed in or adjacent to the Project area. As described by MM WF-1a, wind-driven wildfires, once initiated, have the potential to burn adjacent to or through the

Project area as the result of severe fire weather conditions, flash fuels such as annual and perennial grasslands, and other abundant ignition sources. Wind-driven fires can quickly overcome construction crews, placing their health and safety at risk. Project personnel are not professionally trained firefighters. There is no expectation that construction personnel will actively fight wildland fires. Rather, trained project personnel are only expected to suppress incipient-stage fires to the extent that it is safe and feasible, using the standard fire suppression tools (listed in Section 2.4.3), after first calling 9-1-1.

The BLM only authorizes professionally trained firefighters to suppress fires on BLM-managed land. Contractor personnel will not suppress fires on BLM land, unless an incipient-stage fire located in an approved construction work area, is first reported to the BLM, and can safely be suppressed by trained construction personnel, using the tools specified in this Plan.

1.6 Applicable Project Segments and Timing

This Plan is applicable during construction and operation of the Project and is applicable to work sites in wildland areas and at wildland-urban interfaces in all Project segments and components, including SCE self-perform work. The plan is also applicable in areas surrounding approved work sites, except that on BLM-managed land, fire-suppression activities will only be conducted within approved construction work areas, if it is safe to do so, after reporting protocols have been completed.

SECTION 2

Approach

This Plan has been developed to work in conjunction with the contractor's emergency plans and other safety programs. This includes reviewing all planned transmission line construction activities to ensure compliance with applicable state, local, and national fire and life safety standards. The fire-prevention measures in this Plan reduce the incidence of fires by eliminating opportunities for ignition of flammable materials. The fire safety measures in this Plan reduce the incidence of injury or death caused by fires by properly educating, preparing, and equipping Project personnel. The fire-suppression measures in this Plan reduce the impact of fires to Project personnel, the public, and property by minimizing the escalation of incipient-stage fires, when it is safe to do so.

2.1 Roles and Responsibilities

2.1.1 Supervisors

Project supervisors will be responsible for the following:

- Ensure that equipment is not parked or staged on vegetation.
- Train assigned employees in the safe storage, use, and handling of flammable materials, the use of fire suppression equipment to suppress incipient-stage fires, and the requirements of this fire Plan.
- Ensure flammable material storage areas are properly maintained.

2.1.2 Fire Marshal

The designated Project Fire Marshal is Dustin Bunch (Barnard Construction Company, Inc.). Dustin can be reached by telephone at 661-434-7603. The Project Fire Marshal will be responsible for the following:

- Ensure that Fire Management Leads are properly trained and guided to enforce all provisions of this Fire Management Plan.
- Ensure fire-suppression systems, such as extinguishers and fire-fighting equipment (referenced in Section 2.4.3), are periodically inspected (at least weekly), and maintained in excellent working order.
- Train Fire Management Leads and other project personnel on the use of fire extinguishing equipment for suppressing incipient-stage fires, to the extent that is safe and feasible.
- Inform Fire Management Leads and other project personnel of evacuation routes and procedures for reporting fires.
- Monitor National Weather Service (NWS) Red Flag Warnings and state/local fire agency alerts, bulletins, and notifications issued for the Project vicinity daily, and communicate fire risk to project personnel.
- Modify Fire Management Plan procedures, including construction means and methods, as necessary to accommodate Project Fire and Safety needs.

2.1.3 Fire Management Leads

Each working crew will have a designated Fire Management Lead responsible for the following:

- Enforce all provisions of this Plan.
- Ensure that all work areas, equipment, and vehicles are equipped with properly maintained fire extinguishing equipment for the work being performed.
- Ensure fire-suppression systems, such as extinguishers, are periodically inspected and maintained in excellent working order.
- Train project personnel on the use of fire extinguishing equipment for suppressing incipient-stage fires, to the extent that is safe and feasible.
- Inform project personnel on evacuation routes and procedures for reporting fires.
- Take suppression action for incipient-stage fires, if trained personnel can do so safely, using the fire suppression tools (listed in Section 2.4.3), after first calling 9-1-1.
- On BLM-managed lands, in addition to calling 9-1-1, all fires must be immediately reported to BLM by calling 909-383-5651. Construction personnel are not authorized to suppress fires on BLM land, unless an incipient-stage fire occurs in an approved construction work area, it is immediately reported to the jurisdiction, and can safely be suppressed by trained construction personnel, using the tools specified in this Plan.
- Patrol all work areas after the close of work before finishing for the day.
- Monitor fire prevention activities in SCE-designated Critical Protection Sites.

2.1.4 All Project Personnel

All onsite Project personnel will be responsible for the following:

- Use, store, and transfer flammable materials in accordance with provided training.
- Use approved spark arrestors on all equipment.
- Do not mix flammable materials.
- Report violations of this Plan to the Fire Management Lead, Fire Marshal, and/or supervisor immediately.
- Take reasonable actions to suppress incipient-stage fires to the extent you have been trained to use the fire suppression tools listed in Section 2.4.3, after first calling 9-1-1, in compliance with this Plan.

2.2 Fire Hazards/Analysis

The following subsections describe the potential fire hazards for the Project and the processes through which the hazards and risk for fire will be evaluated.

2.2.1 Fire Hazards

Fire and explosion hazards can exist in almost any work area. Potential hazards include the following:

- Improper operation or maintenance of gas-fired equipment
- Improper storage or use of flammable liquids
- Smoking in prohibited areas
- Accumulation of trash

- Unauthorized hot work (riveting, welding, flame cutting, or other fire- or spark-producing operation)
- Sparks from electrical or other equipment

2.2.2 Fire Hazard Analysis

The Fire Marshal and Fire Leads will assess the worksite, identify known hazards (i.e., hot works, weather conditions, agency alerts), develop an emergency plan, and ensure employees are working in the safest possible environment. It is the responsibility of the worksite contractor foreman to conduct a daily fire hazard analysis to reassess worksite hazards and the emergency plan as conditions change and report such changes to all workers in conjunction with the Daily Job Briefing.

2.2.3 Red Flag Warning

Daily, the Project Fire Marshal or their designee will monitor Red Flag Warnings issued by the NWS for the project area. Upon issuance of a Red Flag Warning. Construction managers will coordinate with the Project Fire Marshal, or their designee, to determine which construction activities located within the NWS Red Flag Warning Zone (Zone) will be temporarily halted until work can safely be resumed. All construction activities may be halted at any time due to changes in fire-related conditions. In addition to stopping work, the Fire Management Lead will designate a monitor to patrol the work area at a specific frequency and specified period after work ceases (determined by the Fire Marshal), to watch for delayed ignitions.

CAL FIRE assists Local and State Responsibility Area agencies by notifying utility companies on Very High and Extreme fire danger days. These days may or may not coincide with the Red Flag Warning days. A communications link will be established between the CAL FIRE San Bernardino and Riverside County Unit Command Centers and SCE for these notifications. During Very High and Extreme fire danger days, local weather parameters reach the 90th percentile of fire danger, identifying the areas as severe fire hazards.

The construction contractor will notify CPUC Environmental Monitors Jaime Miner at 626-262-2207 and Jenny Slaughter at 818-292-2328, in the event construction is adversely affected by weather conditions.

2.2.3.1 Approach to Determine Restricted Work Areas

- For West of Devers, restricted work areas will be determined based upon both Red Flag Warning Events for NWS Zones and CAL FIRE Very High and Extreme fire danger day notifications. Red Flag warning events and CAL FIRE danger notifications will be distributed to project personnel on a daily basis via the POD, and supplemental alerts will be issued to project personnel during the work day, as appropriate. The Wildland Fire Assessment System (https://www.wfas.net/) will be used in conjunction with direct communication between the Project Fire Marshal and CAL FIRE, to assess weather conditions, fuel loading, and determine the CAL FIRE forecast for fire danger across the various project segments.
- Hot work will cease within an NWS Red Flag Warning Zone, unless otherwise approved by the Fire Marshal. Other construction activities, such as the clearing and grubbing of native soil, may also cease based upon Fire Marshal and CAL FIRE recommendations during a NWS Red Flag Warning.
- The designated monitor will continue to patrol the work area at a specific frequency for a specified period after work ceases (determined by the Fire Marshal), to watch for delayed ignitions.
- An exception to work cessation during a Red Flag Warning will be made for West of Devers Project components that are entirely cleared of vegetation or entirely contained within underground vaults with associated access and ventilation equipment located on gravel pads cleared of vegetation. Based on their site-specific conditions, these areas pose a low fire risk. Hot work within a graveled yard or other area cleared to bare mineral soil will be allowed, when approved by the Fire Marshal,

who, at his discretion, may also require additional protective measures, such as a water truck or water buffalo at a specific site.

Note: Additional work restrictions may be dictated by permits (e.g., hot work permit) issued by local fire agencies. The process does not supersede such permit restrictions.

2.2.4 Critical Protection Sites

SCE will identify Critical Protection Sites, based upon the CAL FIRE FHSZ mapping that identifies Moderate, High, and Very High FHSZs within the state. These FHSZs are based on factors such as fire history, existing and potential fuel (natural vegetation), terrain, and typical weather for the area.

The FHSZ mapping, shown on Figures 1-2a through 1-2h, identifies Moderate, High, and Very High FHSZs within CAL FIRE and local fire agency jurisdictions. Construction crews will take precautions in Very High FHSZs, including the following: prohibiting smoking (additional information in Section 2.3.1); requiring the use of spark arrestors on equipment exhaust; daily patrolling of fire-prevention activities, inspection of portable fire extinguishers, shovels, Pulaskis, and other equipment for fighting incipient-stage fires; and observing other precautionary measures that may be ordered by CAL FIRE or local fire agencies.

2.3 Fire Prevention and Safety Measures

The following subsections describe the measures that will be implemented to ensure fire safety through prevention.

2.3.1 Smoking and Fire Rules

All smoking (including, but not limited to, conventional cigarettes and vaporizers) shall be prohibited, except in designated smoking areas, equipped with a smoking container, and cleared to mineral soil at least 50 feet in diameter. The contractor shall post signs to designate approved smoking areas.

Smoking will be allowed under the following conditions:

- Inside the cab of vehicles with the doors closed and parked in a cleared parking area.
- In designated smoking areas with an approved smoking container.
- Smoking areas must be cleared to mineral soil a minimum radius of 25 feet around the approved smoking container.
- The container shall be resistant to high wind gusts either by design or an adequate form of securing.
- The smoker must remain within 5 feet of the smoking container.
- The smoking container will be removed from the ROW and cleaned by the contractor daily.
- Smoking areas shall be located at least 50 feet from all hazardous material, gas and oil storage areas, and equipment service areas.
- Ashes, matches, and/or butts observed on the ground in or near the designated smoking area will result in the elimination of ROW smoking privileges.

These rules shall be posted near the smoking container with the responsible person's contact information, for periodic removal and service.

Under no circumstances shall smoking of any kind be permitted while workers are operating light or heavy equipment, while traveling on the ROW, or walking/working in grass and woodlands, or in a Critical Protection Site.

2.3.2 Elimination of Ignition Sources

All nonessential ignition sources must be eliminated where flammable liquids are used or stored. The following is a list of some of the more common potential ignition sources:

- Open flames, such as cutting and welding torches, furnaces, matches, and heaters. These sources should be kept away from flammable liquids operations. Cutting or welding on equipment with flammable liquids should not be performed unless the equipment has been properly emptied and purged with a neutral gas such as nitrogen.
- Chemical sources of ignition such as DC motors, switches, and circuit breakers. These sources should not be present where flammable liquids are handled or stored. Only approved explosion-proof devices should be used in these areas.
- Mechanical sparks can be produced as a result of friction. Only non-sparking tools should be used in areas where flammable liquids are stored or handled.
- Static sparks can be generated as a result of electron transfer between two contacting surfaces. The electrons can discharge in a small volume, raising the temperature to above the ignition temperature. Every effort should be made to eliminate the possibility of static sparks. Also, proper bonding and grounding procedures must be followed when flammable liquids are transferred or transported.
- Motors, engines, welding equipment, cutting torches, grinding devices, or other equipment from which a spark, fire, or flame may originate will not be used without first clearing away flammable material for a distance of 10 feet (radially), and having available a round-point shovel with an overall length of not less than 46 inches, Pulaski, and a fire extinguisher - ready to use. Section 2.4.3 details fire extinguisher and equipment specifications. This does not apply to power saws and other portable tools powered by a gasoline-fueled internal combustion engine.
- Portable gasoline-fueled tools (chain saws, etc.) will not be used within 25 feet of flammable materials without providing one round-point shovel with an overall length of not less than 46 inches or a fire extinguisher having a minimum rating of 2-BC. The fire tools will be located within 50 feet of the tool operation at all times. Motor vehicles will not be parked or operated outside of cleared work areas, except for the specific purpose of clearing vegetation.

2.3.3 Removal of Incompatibilities

Materials that can contribute to a flammable liquid fire should not be stored with flammable liquids. Examples are oxidizers and organic peroxides, which, on decomposition, can generate large amounts of oxygen.

2.3.4 Control of Flammable Gases

Generally, flammable gases pose the same type of fire hazards as flammable liquids and their vapors. Many of the safeguards for flammable liquids also apply to flammable gases. Other properties such as toxicity, reactivity, and corrosiveness also must be considered. Also, a gas that is flammable could produce toxic combustion products**.**

2.3.5 Permitting

The contractor will work with the necessary agencies to acquire all permits to operate within compliance of this Plan.

Permitting agencies include state, federal, city, and county agencies. The permits serve to notify the appropriate agencies of the potential for fire and the permit conditions include additional measures for the prevention of fires.

The contractor shall evaluate the work to be performed and determine if a hot-work permit (or equivalent) is required. At a minimum, the following activities may require a hot-work permit:

- Blasting and storage of explosives and detonators
- Welding and cutting
- Grinding
- Sparking tools
- Footing demolition
- Use of gasoline- or diesel-powered tools (i.e., chain saws)

The San Bernardino County Fire Department, which provides fire protection in the cities of Grand Terrace and San Bernardino, as well as the unincorporated areas of the county, requires a Hot Works permit prior to welding, cutting, or working with open flames in hazardous fire areas. Hot Works Permits are also required in the cities of Colton and Loma Linda. The Project Fire Marshal and local fire agencies (where applicable) will maintain responsibility for acquiring/issuing Hot Work Permits, and assessing fire prevention measures that may be required.

2.3.5.1 Blasting

The contractor shall prepare a blasting plan prior to conducting blasting operations. The contractor shall use electric caps only. When blasting is necessary in slash areas, a watchperson equipped with shovel and fire extinguisher, shall remain in the immediate area for 1 hour after blasting has been completed.

2.3.5.2 Welding and Cutting

The contractor shall select a welding site that is free of native combustible material and/or clear the site of such material to minimize the fire hazard. All welding on supporting structures shall be performed during fabrication of the structures at the fabricator's yard, to the extent practicable. If welding occurs on the ROW, a fire patrol person/fire watch shall be designated to observe the operation and monitor the area for potential fire ignition during and at least 1 hour after welding is completed. The contractor shall confine welding activities to cleared areas having a minimum radius of 10 feet measured from the place of welding and use a metal shield where possible to deflect sparks, unless otherwise determined by Fire Marshal based on the site conditions.

All welding rigs shall be equipped with a minimum of one 20-pound or two 10-pound fire extinguishers, a shovel, and a Pulaski.

2.3.5.3 Implosive Sleeve Splicing

The contractor shall prepare an implosive sleeve slicing plan prior to conducting such operations.

2.3.6 Fire Safety Inspections and Housekeeping

First-line supervisors for contractors and Fire Management Leads are responsible for conducting worksite surveys that include observations of compliance with the Fire Plan. The surveys will include observations of worksite safety and housekeeping issues and will specifically address proper storage of chemicals and supplies, availability of required fire-suppression equipment and tools, unobstructed access to fire extinguishers, and emergency evacuation routes. Also, they will determine if an emergency evacuation plan is present in work areas and that personnel are familiar with the plan.

2.3.7 Emergency Exits

Project Supervisors will identify preferred evacuation routes for specific project sites in the Daily Job Briefing. Means of evacuation may include vehicle, walking, or helicopter removal. Helicopter removal may be provided by construction subcontractors or county fire departments.

2.3.8 Emergency Plans for Persons with Disabilities

The first-line supervisor for contractors will be assigned the responsibility to assist Persons with Disabilities (PWDs) under their supervision. The first-line supervisor will appoint an alternate to assist PWDs in his absence or in the event that additional support is required. The role of the first-line supervisor and his alternate is to assist PWDs in the event of an evacuation, and make sure that the PWD is removed from danger.

- Supervisors, alternates, and the PWDs will be trained on available escape routes and methods.
- A list of PWDs will be kept in the contractor's office.
- Visitors who have disabilities will be assisted in a manner similar to that of company employees. The host of the PWD will also assist in the PWD's evacuation.

2.3.9 Employee Training

General fire prevention and protection measures will be incorporated into the Project-specific Worker Environmental Awareness Program and Safety Training. The training will include classroom sessions where employees will learn what equipment and tools are required to be on hand and to recognize potential fire hazards, identify incipient fire stages, begin the emergency response protocol, and understand extinguishing methods using available equipment. In addition, the effects of fire on sensitive (native desert vegetation) and riparian (streamside vegetation) habitats will be discussed.

2.3.10 Evacuation Routes and Plans

The Fire Marshal, Fire Leads, and Crew Leaders will define and implement evacuation routes/plans for each work area.

2.3.10.1 Office Locations

Each facility shall have an emergency evacuation plan. All emergency exits shall conform to National Fire Protection Association standards.

Should evacuation be necessary, employees will go to the nearest exit or stairway and proceed to an area of refuge outside the building. Most stairways are fire resistant and present barriers to smoke if the doors are kept closed.

2.3.10.2 Right-of-Way

Fieldwork occurring on the ROW will require unique evacuation routes and planning daily, as construction areas will change. The nature and difficulty of access will change, as will the nature of the vegetation. Weather, fire history, existing and potential fuel sources (natural vegetation), terrain, and site conditions will dictate the speed of spreading wildland fires. Crew leaders will be expected to develop a daily evacuation plan while completing the Daily Job Briefing. Employees will be expected to know and understand their responsibility before signing the briefing. All evacuation routes are subject to approval or modification by the responsible fire patrol personnel. In the event of a modification, it shall be clearly communicated to all employees present and any that may arrive on that specific site.

2.3.10.3 Emergency Response Coordinators/Supervisors

Emergency Coordinators/Supervisors will be responsible for verifying that personnel have evacuated from their assigned areas.

2.3.10.4 Support Services

The CAL FIRE Riverside and San Bernardino units provide wildland fire protection in all areas of Riverside and San Bernardino Counties, except the incorporated cities of Redlands, Colton, Loma Linda, and Beaumont. The Riverside County Unit supports the southern areas of the Project and the San Bernardino Unit supports the northern areas of the Project, and will provide fire support services, including air operations, in the event of an evacuation. BLM has responsibility for wildland fire support in the southern areas of the project in the White Water vicinity and the Highway 62 corridor.

The contact numbers for CAL FIRE Riverside are:

- Emergency: 951-657-2161
- Non-emergency: 951-940-6949

The contact numbers for CAL FIRE San Bernardino are:

- Emergency: 800-992-4494
- Non-emergency: 909-881-6916

The contact numbers for the BLM are:

- Emergency: 9-1-1
- Non-emergency: 909-383-5651

Appendix A contains a complete list of non-emergency local fire agency contact information.

2.4 Fire Emergency Procedures

The following sections describe the procedures that will be implemented if a fire occurs in the Project area.

2.4.1 If a Fire is Discovered

If a fire occurs, the following steps will be taken:

- Alert the appropriate fire agency by calling 9-1-1. All project-related fires will be reported immediately.
- On BLM-managed lands, in addition to calling 9-1-1, all fires must be immediately reported to the BLM by calling 909-383-5651.
- When reporting, note the location, size, and type of fire
- Notify supervisors and other personnel
- Establish communication to any necessary support services
- Immediately take a site-specific employee head count

If a fire occurs in an office or trailer, employees should do the following:

- Engage the fire alarm
- Evacuate the area, close the windows, turn off gas jets, and close doors as they leave
- Leave the building and move away from exits and out of the way of emergency operations
- Assemble in a designated area

- Report to the monitor so he/she can determine that all personnel have evacuated their areas
- Remain outside until competent authority states that it is safe to re-enter

2.4.2 Suppression of Incipient-stage Fires

As described in Section 1.5, the primary purpose of this Plan is to describe the measures that will be taken to *prevent* the start of wildland fires as a result of construction activities and the steps that will be taken if a fire is initiated by construction or observed in the Project area. There is no expectation that construction personnel will actively fight wildland fires. Rather, Project personnel will only be expected to suppress incipient-stage fires, to the extent it is safe and feasible.

Fire will be suppressed by trained SCE and contractor personnel, ONLY if each of the following criteria are met:

- The fire department (9-1-1) has been FIRST notified of the fire
- The fire is small and confined to its area of origin
- There is an escape route and employees can suppress the fire with their backs to the exit
- The proper extinguisher/tools, in good working order, are available, and their proper use is known.

If employees are unsure of their ability or the fire extinguisher's capacity to contain the fire, employees will leave the area.

SCE personnel and contractors will NOT take action to suppress fires on BLM land unless the incipient-stage fire is located in an approved construction work area, and the BLM is first contacted at 909-383-5651.

2.4.3 Fire Suppression Equipment

Where required, the following are the Project fire tool and equipment standards:

- *Shovels shall be size "O" or larger and not be less than 46 inches in overall length*.
- *Pulaskis shall be equipped with a 2.5-pound or larger head and not be less than 28 inches in overall length.*
- *Fire extinguishers, unless otherwise noted, shall be a 2-A:10B:C or larger.*

Extinguishers will be selected according to the potential fire hazard, the construction of facilities, hazard to be protected, and other factors pertinent to the situation. All Project work areas, including demolition, construction, erection, drilling, wire pulling/removal, vegetation clearing, permit-required activities, and any other focused work areas shall have the following tools placed within 50 feet, and be readily available in the event of an emergency:

Vehicles outside existing substations shall have the following:

- One shovel
- One Pulaski
- One 5-pound Class A-B-C fire extinguisher

Welders shall have the following (one set inside existing substations):

- One shovel
- One pressurized 20-pound or two 10-pound fire extinguishers
- One Pulaski

Gasoline- or diesel-fueled tools shall have the following (one set inside existing substations):

- One shovel (must be kept within 100 feet)

- One pressurized fire extinguisher within 50 feet of work being performed

Hydraulic systems outside existing substations shall have the following:

- Two 4-A:80-B:C fire extinguishers

Heavy construction equipment outside existing substations shall have the following:

- Exhaust spark arrestors
- One type O shovel
- One Pulaski
- One 5-pound Class A-B-C fire extinguisher, a larger fire extinguisher may be required at Fire Marshal discretion

2.4.4 Fire Extinguishers

A portable fire extinguisher is a first-aid device and is very effective when used for combating incipient-stage fires. The use of a fire extinguisher that matches the class of fire and is operated by a person who is well trained can save both lives and property. Portable fire extinguishers must be available at all worksites, on construction equipment, and vehicles, regardless of other fire suppression measures. The successful performance of a fire extinguisher in a fire situation largely depends on its proper selection, inspection, maintenance, and distribution.

2.4.4.1 Classification of Fires

Fires are classified into four general categories depending on the type of material or fuel involved. The type of fire determines the type of extinguisher that should be used to extinguish it.

- Class A fires involve materials such as wood, paper, and cloth that produce glowing embers or char.
- Class B fires involve flammable gases, liquids, and greases, including gasoline and most hydrocarbon liquids that must be vaporized for combustion to occur.
- Class C fires involve fires in live electrical equipment or in materials near electrically powered equipment.
- Class D fires involve combustible metals, such as magnesium, zirconium, potassium, and sodium.

2.4.4.2 Location and Marking of Extinguishers and Equipment

Fire extinguishers will be conspicuously located and readily accessible for immediate use on incipient-stage fires. In locations where visual obstruction cannot be completely avoided, locating arrows will be provided to indicate the location of extinguishers.

If extinguishers intended for different classes of fire are located together, they will be conspicuously marked to ensure that the proper class extinguisher selection is made at the time of a fire.

2.4.4.3 Condition

Portable extinguishers will be maintained in a fully charged and operable condition. They will be kept in their designated locations at all times when not being used. When extinguishers are removed for maintenance or testing, a fully charged and operable replacement unit will be provided.

2.4.4.4 Mounting and Distribution

Extinguishers (pressurized water canisters and tanks, where applicable) will be installed on hangers, brackets, in cabinets, or in vehicle storage bins.

Extinguishers having a gross weight not exceeding 40 pounds will be installed so that the top of the extinguisher is not more than 3.5 feet above the floor.

Extinguishers must be distributed in such a way that the amount of time needed to travel to their location and back to the fire does not allow the fire to get out of control. The Occupational Safety and Health Administration requires that the travel distance for Class A and Class D extinguishers not exceed 75 feet. The maximum travel distance for Class B extinguishers is 50 feet because flammable liquid fires can get out of control faster than Class A fires. There is no maximum travel distance specified for Class C extinguishers, but they must be distributed on the basis of appropriate patterns for Class A and B hazards.

2.4.4.5 Inspection and Maintenance

Once an extinguisher is selected, purchased, and installed, it is the responsibility of the Site Superintendent to oversee the inspection, maintenance, and testing of fire extinguishers to ensure that they are in proper working condition and have not been tampered with or physically damaged.

2.4.5 Water Supplies

For the purpose of fugitive dust suppression and other construction activities, a water truck and/or "water buffalo" may be located within a supersite or access road. To the extent that is feasible and safe, these water supplies may be used to suppress incipient-stage fires. However, the equipment listed above (e.g., fire extinguishers, shovel, Pulaski) are the primary fire-suppression tools for SCE and Contractor personnel. SCE construction personnel will call 9-1-1 ***before*** attempting to suppress incipient-stage fires with these tools. If a fire grows beyond containment using these tools, onsite personnel will initiate evacuation procedures. As MM WF-1a describes, the dry conditions and presence of flash fuel sources in the Project area, combined with the potential for high winds in some areas, make for potentially unsafe conditions should a fire occur. Personal safety is the first priority. Therefore, true fire-fighting will be the responsibility of the appropriate fire agencies, not Project personnel.

SECTION 3

Plan Approval

This Plan has been prepared to address the requirements of MMs WF-1a. The Plan was reviewed by CPUC, BLM, CAL FIRE, San Bernardino County, Riverside County, and local municipal fire agencies and originally approved on July 18, 2017. The fire agencies approved this version of the Plan in October 2018. The original Plan has been revised to address unforeseen issues. The revised plan was reviewed and approved by CPUC, BLM, CAL FIRE, San Bernardino County, Riverside County, and local municipal fire agencies and was finalized for submittal to the CPUC and BLM for review, comments, and final approval.

SECTION 4

References

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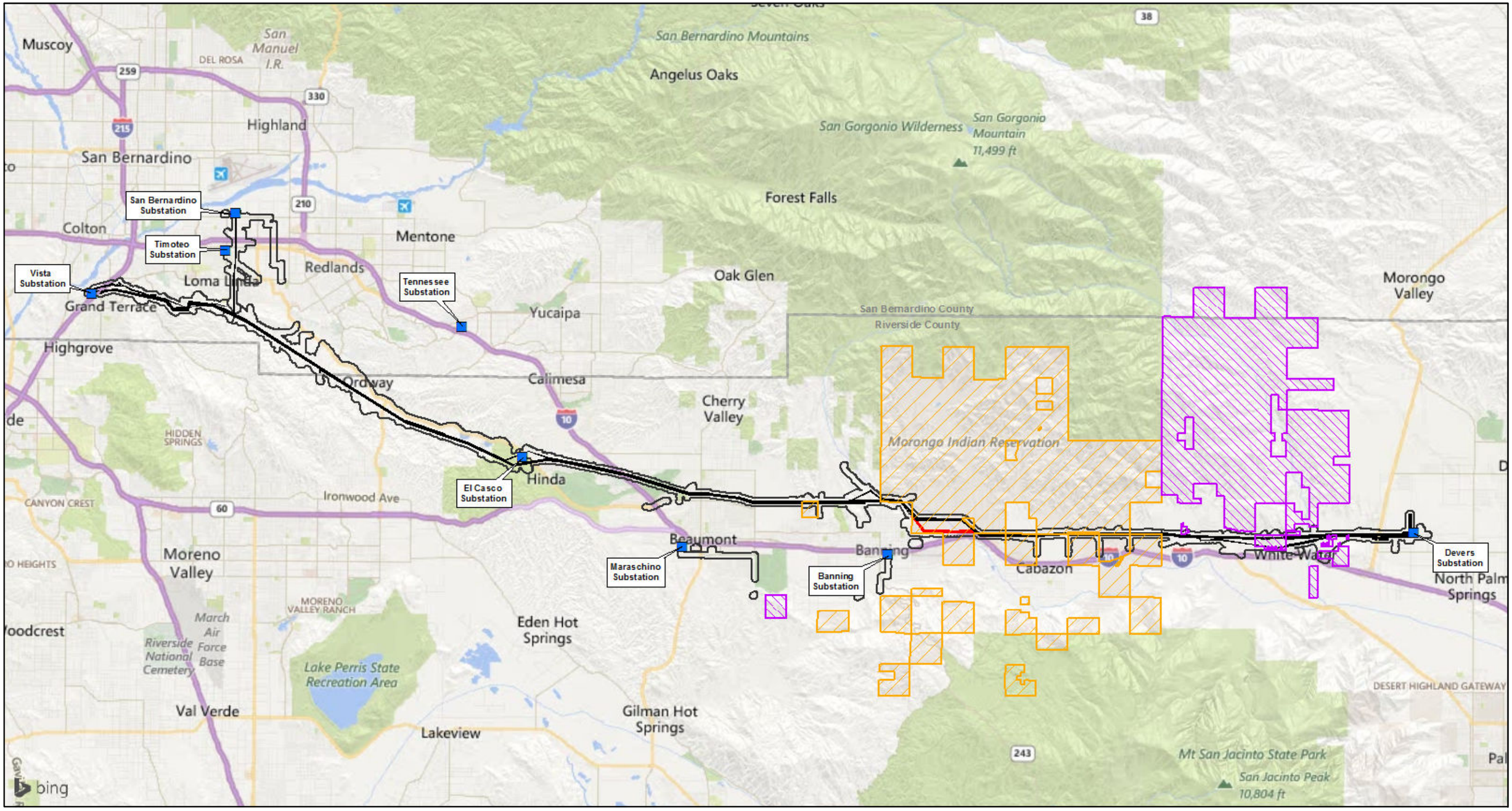
SECTION 5

Revisions

Revisions made to standard text (black ink) should be noted below to document changes in requirements or SCE's approach to this Fire Management Plan.

Date	Description of Revision	Contact
4/10/2018	Barnard Construction Proposed Edits	Dustin Bunch – (661) 434-7603
10/20/2018	Barnard Construction Edits	Dustin Bunch – (661) 434-7603

Figures



SOUTHERN CALIFORNIA EDISON
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LEGEND

- Project Study Area
- Existing Transmission Line Right of Way
- Proposed Right of Way
- Substation
- U.S. Bureau of Land Management
- Morongo Reservation

0 1.5 3
Miles

Source: SCE, Bing Maps

FIGURE 1-1

Southern California Edison
West of Devers Upgrade Project
Project Overview and Study Area
Fire Management Plan

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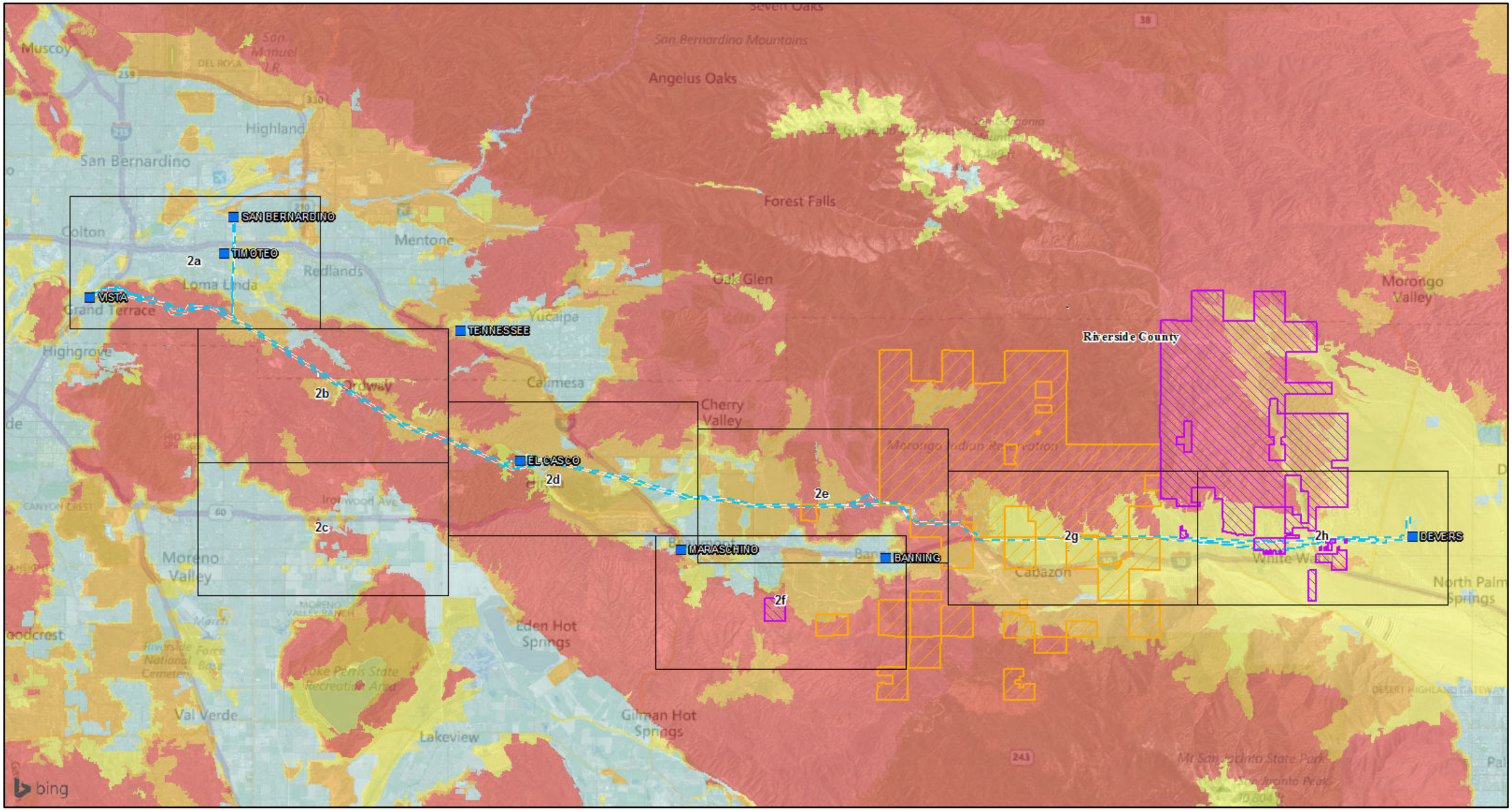

SOUTHERN CALIFORNIA EDISON
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LEGEND

- Substation
- Existing Transmission Line Right of Way
- 01 Map Grid (Map Sheet Number)
- U.S. Bureau of Land Management
- Morongo Reservation

Fire Hazard Severity Zones

- Very High
- High
- Moderate
- Undesignated (non-wildlands)

0 1.5 3
Miles

Source: SCE, Cal Fire, Bing Imagery, Bing Roads

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FIGURE 1-2

Southern California Edison
West of Devers Upgrade Project
Fire Hazard Severity Zones
Fire Management Plan

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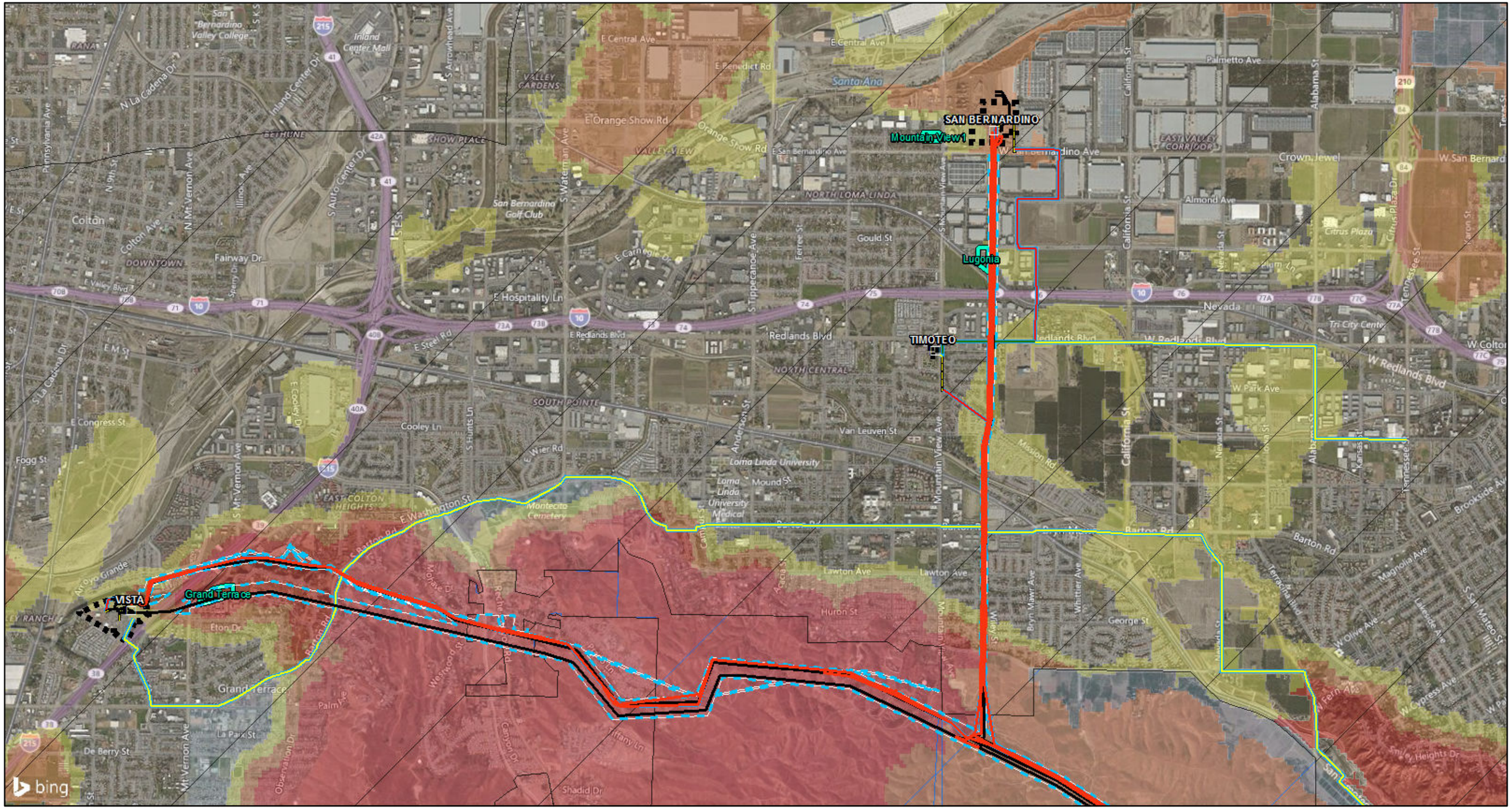

SOUTHERN CALIFORNIA EDISON
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Miles

SCE, Cal Fire, ESRI World Street Map, Bing Imagery

LEGEND

Fire Hazard Severity Zones
- Very High
- High
- Moderate
- Undesignated (non-wildlands)

Fire Agency Jurisdictions
- CalFire Riverside Unit
- CalFire San Bernardino Unit
- California Desert District
- Local
- Other

- Substation
- Proposed 220kV C/L test
- Existing 220kV
- Existing Substation
- Material Storage Yard (MSY)
- Existing ROW

Telecom Line
- Existing, OH
- Existing, UG
- Proposed Telecom
- Remove, OH
- Remove, UG

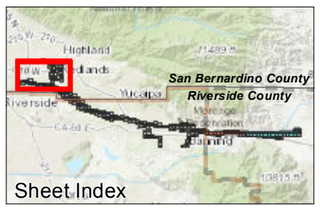

FIGURE 1-2a

Southern California Edison
West of Devers Upgrade Project
Fire Hazard Severity Zones
Fire Management Plan

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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

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Miles

SCE, Cal Fire, ESRI World Street Map, Bing Imagery

LEGEND

Fire Hazard Severity Zones
- Very High
- High
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- Undesignated (non-wildlands)

Fire Agency Jurisdictions
- CalFire Riverside Unit
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- Local
- Other

- Substation
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- Proposed Telecom
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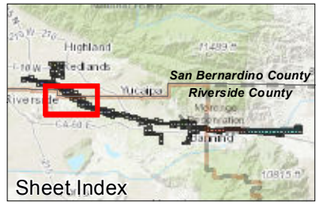

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FIGURE 1-2b

Southern California Edison
West of Devers Upgrade Project
Fire Hazard Severity Zones
Fire Management Plan

ch2m

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LEGEND

Fire Hazard Severity Zones
- Very High
- High
- Moderate
- Undesignated (non-wildlands)

Fire Agency Jurisdictions
- CalFire Riverside Unit
- CalFire San Bernardino Unit
- California Desert District
- Local
- Other

- Substation
- Proposed 220kV C/L test
- Existing 220kV
- Existing Substation
- Material Storage Yard (MSY)
- Existing ROW

Telecom Line
- Existing, OH
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SCE, Cal Fire, ESRI World Street Map, Bing Imagery

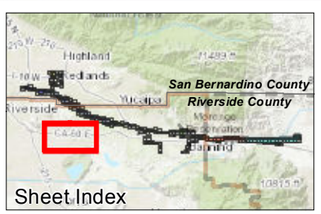

FIGURE 1-2c

Southern California Edison
West of Devers Upgrade Project
Fire Hazard Severity Zones
Fire Management Plan

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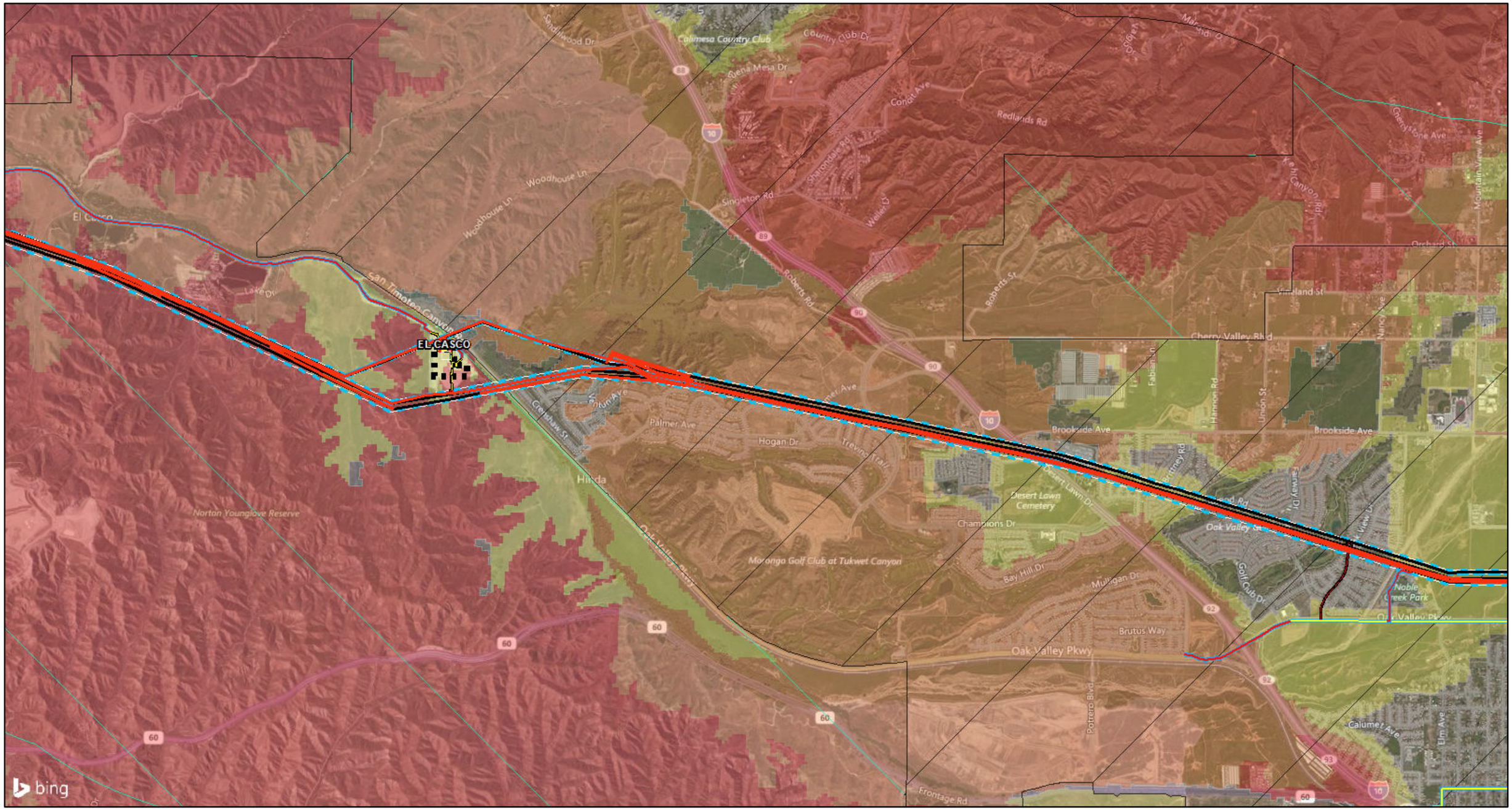

SOUTHERN CALIFORNIA EDISON
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Miles

SCE, Cal Fire, ESRI World Street Map, Bing Imagery

LEGEND

Fire Hazard Severity Zones
- Very High
- High
- Moderate
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Fire Agency Jurisdictions
- CalFire Riverside Unit
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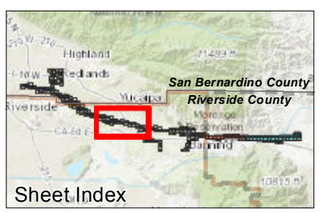

FIGURE 1-2d

Southern California Edison
West of Devers Upgrade Project
Fire Hazard Severity Zones
Fire Management Plan

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LEGEND

Fire Hazard Severity Zones
- Very High
- High
- Moderate
- Undesignated (non-wildlands)

Fire Agency Jurisdictions
- CalFire Riverside Unit
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Telecom Line
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SCE, Cal Fire, ESRI World Street Map, Bing Imagery

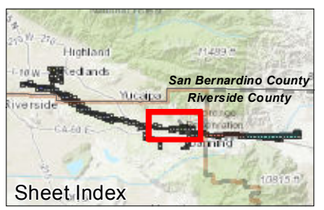

FIGURE 1-2e

Southern California Edison
West of Devers Upgrade Project
Fire Hazard Severity Zones
Fire Management Plan

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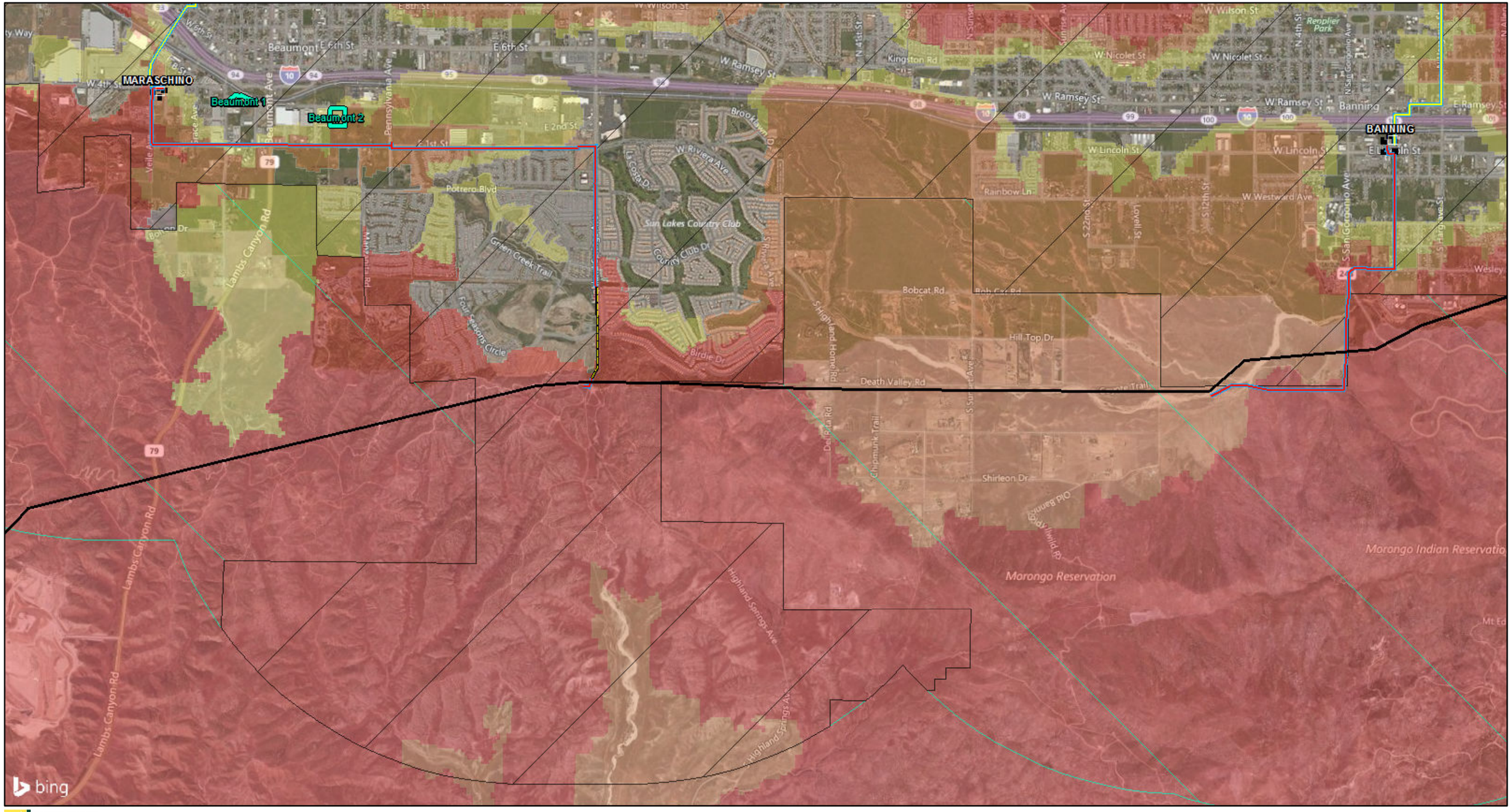

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL™ Company

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SCE, Cal Fire, ESRI World Street Map, Bing Imagery

LEGEND

Fire Hazard Severity Zones
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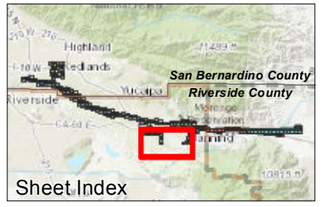

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FIGURE 1-2f

Southern California Edison
West of Devers Upgrade Project
Fire Hazard Severity Zones
Fire Management Plan

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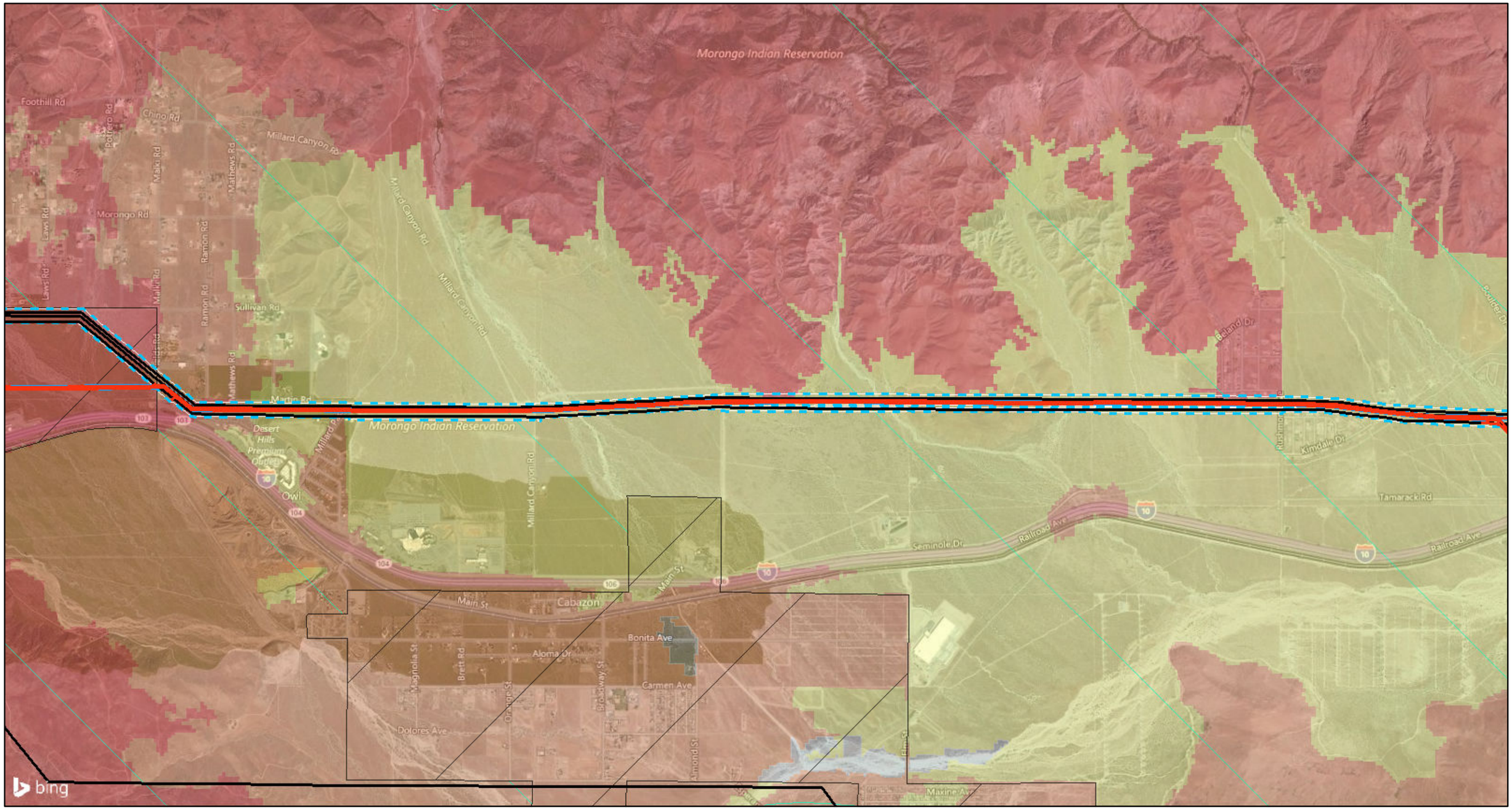

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

LEGEND

Fire Hazard Severity Zones
- Very High
- High
- Moderate
- Undesignated (non-wildlands)

Fire Agency Jurisdictions
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SCE, Cal Fire, ESRI World Street Map, Bing Imagery

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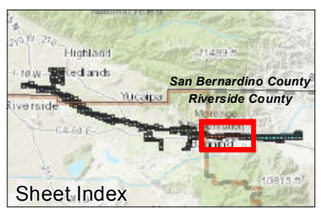

FIGURE 1-2g

Southern California Edison
West of Devers Upgrade Project
Fire Hazard Severity Zones
Fire Management Plan

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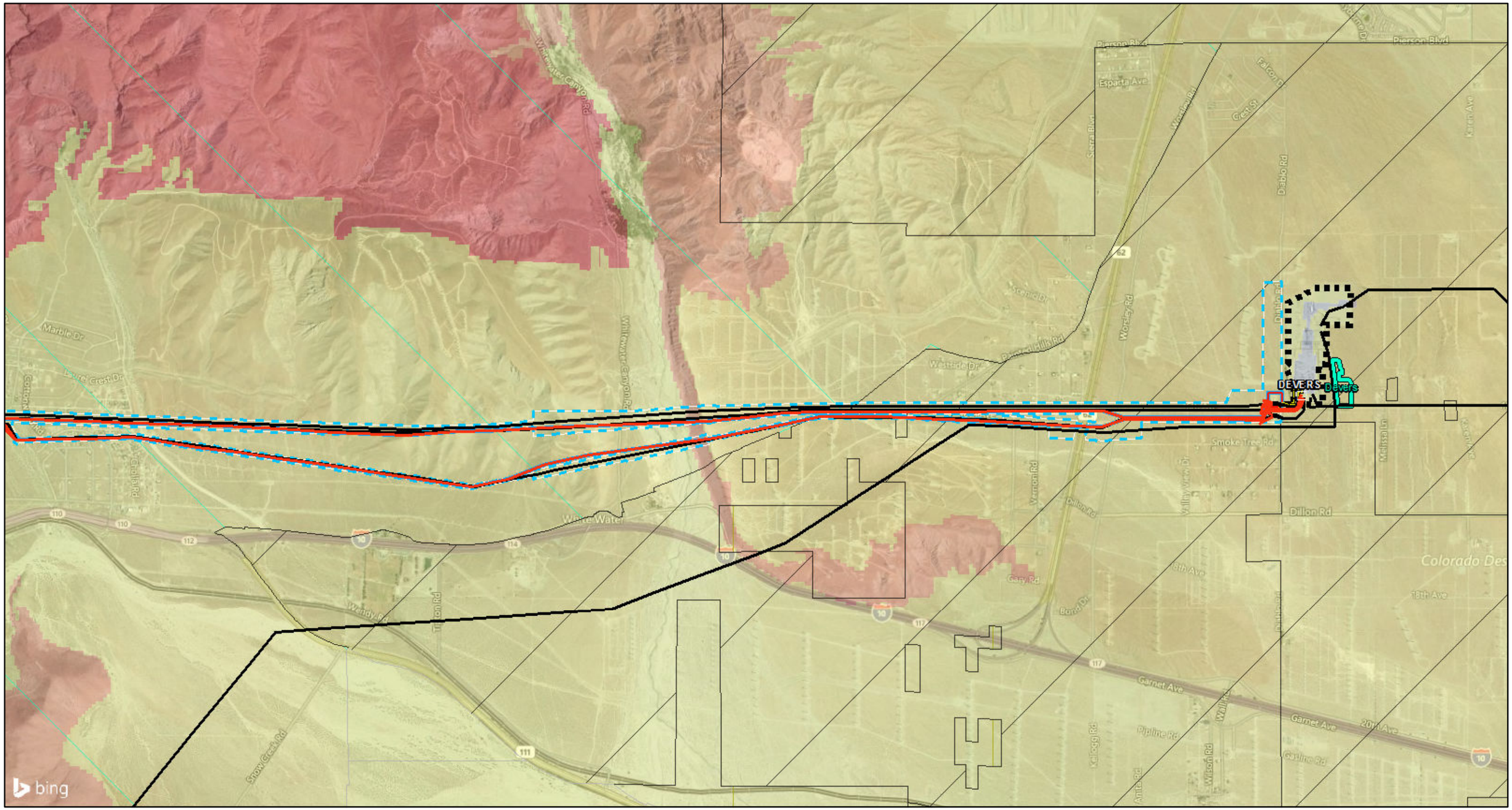

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

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Miles

SCE, Cal Fire, ESRI World Street Map, Bing Imagery

LEGEND

Fire Hazard Severity Zones
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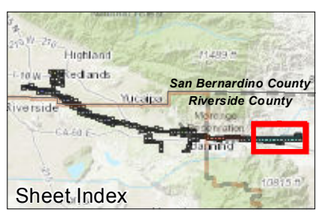

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FIGURE 1-2h

Southern California Edison
West of Devers Upgrade Project
Fire Hazard Severity Zones
Fire Management Plan

ch2m

Appendix A
Non-Emergency Contact Information

Table A-1. Non-Emergency Contact Information
WOD Fire Management Plan

Agency	Segment(s)	Non-Emergency Phone Number
BLM	6	909-383-5651
County of San Bernardino	1, 2, and 3	909-386-8400
City of Colton	2	909-370-5100
City of Grand Terrace (San Bernardino County)	2	909-386-8400
City of Loma Linda	1 and 2	909-799-2850
City of Redlands	1 and 3	909-798-7600
City of Calimesa (Jock Johnson)	4	909-735-6743
County of Riverside	3, 4, 5, and 6	951-940-6900
City of Beaumont (Richard Horner)	4	951-572-3905
City of Banning (Michelle Devoux)	4 and 5	951-922-3167
Morongo Reservation	5	951-755-5315

Appendix B
SCE Specification E-2005-104

SOUTHERN CALIFORNIA EDISON COMPANY
Pomona, California

(THIS VERSION CONVERTS AND REPLACES THE ORIGINAL ASSIGNED NUMBER FROM AN ENGINEERING SPECIFICATION TO A STANDARD TRANSMISSION SPECIFICATION NUMBER; NO CHANGES HAVE BEEN MADE TO THE SPECIFICATION ITSELF)

STANDARD SPECIFICATION – TRANSMISSION

NO. SST8-2015

TRANSMISSION LINE PROJECT FIRE PLAN

(Replaces Specification E-2005-104, Revision 0)

November 23, 2015

(2005 VERSION SIGNED)

SOUTHERN CALIFORNIA EDISON COMPANY
Pomona, California

STANDARD SPECIFICATION – TRANSMISSION

NO. SST8-2015

TRANSMISSION LINE PROJECT FIRE PLAN

(Replaces Specification E-2005-104, Revision 0)

November 23, 2015

Approved for Issue:

(2005 VERSION SIGNED)

Britton E. Miller
Senior Engineer,
Transmission Structural Engineering
T&D

Date

Peter L. Hlapcich
Manager, Transmission,
Transmission Engineering
T&D

Date

Caroline Meissner
Manager, Transmission,
Transmission Engineering
T&D

Date

REVISION SUMMARY

The main purpose of this summary is to document previous and current revisions/amendments.

Revision/ Amendment	Date	Comments:	Revised by:
0	02/21/06	Initial Issue	Albert Milikian
0	11/23/15	Converted from Engineering Specification E-2005-104 to Transmission Standard Specification SST8-2015	L. Arellanes

SOUTHERN CALIFORNIA EDISON COMPANY
Pomona, California

STANDARD SPECIFICATION – TRANSMISSION

NO. SST8-2015

TRANSMISSION LINE PROJECT FIRE PLAN

(Replaces Specification E-2005-104, Revision 0)

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TABLE OF CONTENTS

END TABLE OF CONTENTS

SECTION 1

TRANSMISSION LINE PROJECT FIRE PLAN

1.1 INTENT

A. This Specification has been developed for use by Edison and/or Contractor crews to ensure uniform guidelines for prevention, control, and extinguishment of fires are followed during transmission line construction projects. Frequent reference to and compliance with this Specification shall result in more consistency and greater fire control during transmission line construction.

B. The intent of this Specification is to provide an overall technical reference for the Work as defined in the Project Specification. However, not all sections of this Specification may be applicable to every Project. The Project Specification shall define the specific Project Job requirements and shall be the master document in regards to this Specification. In all cases where this Specification is in conflict with the Project Specification, the Project Specification shall apply.

C. Deviation from this Specification shall not be permitted unless so described in the Project Specification or approved by Edison's Construction Representative.

D. All Working areas shall be maintained in an orderly, safe, clean and neat manner. As Work is completed in any one area, the area shall be promptly cleaned of all trash and surplus material and left in as good or better condition than initially encountered.

1.2 CONFORMANCE TO APPLICABLE CODES AND SAFETY REGULATIONS

A. Construction shall be performed in accordance with all sanitary, safety and building codes; Rules for Overhead Electric Line Construction G.O. 95, Public Utilities Commission, the National Electric Safety Code; and orders, ordinances and regulations that may apply. All work shall be performed in accordance with the Constructor's Safety Policy, OSHA or any other applicable provisions of Federal, State or local safety regulations. All regulations of the Division of Industrial Safety of the applicable state, any other public agency, or insurance policies shall also be complied with.

B. All Work shall be accomplished by compliance to United States Forest Service Fire Plan, California Public Resource Code, Project Specification, this Specification, referenced specifications and standards, permitting constraints and conditions, and governing regulations using proper tools and equipment that are in good Working condition.

C. The Work shall be performed in compliance with the latest version of the following codes and standards as amended to the date of the Project Specification, which are by reference, incorporated herein and made a part of the Project Specification. However, where the Drawings and/or this Specification calls for apparatus, workmanship, construction, etc., in excess of the referenced code requirements, Constructor shall take steps such that the Work shall be provided.

California Public Resource Code (Division 4. Forests, Forestry and Range and Forage Lands) (CPRC)

United States Forest Service Handbook (FSH)

Storm Water Pollution Prevention Plan (SWPPP)

1.3 RESPONSIBILITES

This Specification describes Constructor and Construction Representative's responsibilities. Edison or Constructor's crew may assume these responsibilities as follows:

1. Edison crew that are assigned to construct transmission lines will assume the responsibilities of "Constructor", as described in this specification, or

2. Contractors who are contracted and authorized by Edison to construct transmission lines shall take on the responsibilities of "Constructor", as delineated in this Specification.

3. A Construction Representative will be assigned by Southern California Edison.

1.4 SCOPE OF WORK

Constructor shall furnish all supervision, labor, tools, equipment and material necessary to prevent starting any fire, control spread of fires if started, and provide assistance for extinguishing fires started as a result of transmission line construction activities; as specified herein, the Project Specification, and Job Walk Minutes.

1.5 SAFEGUARDS AND CONTROL OF FIRES

A. Constructor shall provide temporary safeguards, walks, rails, guards, construction fences, and suchlike, as required by any ordinances, as directed by the Construction Representative, or as necessary to protect workers, Edison employees, and the public from the time when the Work is begun until it is accepted by Edison. Constructor shall ensure reasonable safeguards have been implemented to prevent any fires from starting.

B. Constructor shall incorporate Best Management Practices to prevent starting any uncontrolled fire, control spread of fires if started, and provide assistance for extinguishing fires started as a result of transmission line construction. Constructor shall be solely responsible to owners or occupants of land for damage of every kind and nature resulting from the Work and activities of Constructor and its crews.

C. In the event of unforeseen damage to any improvement, Constructor shall promptly notify the Construction Representative and the owner of such improvements. Any damaged improvements shall immediately be repaired by Constructor as approved by the owner of such damaged facility. Other damaged property shall be repaired within a reasonable time.

1.6 PRECAUTIONS IN AREAS OF FIRE HAZARDS

A. Constructor shall use every reasonable precaution against starting fires where the work is performed, in whole or in part, in an area covered with flammable dry grass, brush, and trees. Such precautions shall include, but not be limited to, prohibiting smoking on the Jobsite, use of spark arresters on equipment exhaust, and if necessary assigning a Fire Patrolperson whose responsibility shall be solely to monitor the Constructor's fire-prevention activities. The Fire Patrolperson shall be equipped with radio or cell phone communication capability.

B. Constructor shall provide required portable fire fighting equipment, shovels, axes, and other necessary fire fighting equipment at all sites where work is in progress, and with all crews in transit.

C. Constructor shall observe all other precautionary measures that may be ordered by the United States Forest Service (USFS), Division of Forestry of the State where the worksite is located, County Fire Departments, and their authorized representative.

D. Constructor is further advised that during periods of extreme fire hazard due to critical weather conditions, USFS, Division of Forestry of the State where the worksite is located, and County Fire Departments may order Work to be suspended at any time in designated areas.

E. In the event of any uncontrolled fire near the work, and as requested by the Construction Representative, Constructor shall furnish any and all of its forces and equipment to extinguish such fire as directed by the USFS, Division of Forestry of the State where the worksite is located, and County Fire Departments. Under these conditions, Constructor's forces shall operate under the sole jurisdiction of the USFS, Division of Forestry of the State where the worksite is located, and County Fire Departments. Payment for labor and equipment shall be negotiated between the Constructor and the USFS.

1.7 FIRE PLAN REQUIREMENTS FOR US NATIONAL FOREST AREAS

1.7.1 Constructors Responsibilities

A. The provisions set forth in this section of the Project Fire Plan outline the Constructor's responsibility for fire prevention and suppression activities, along with the establishment of a fire attack procedure during transmission line construction projects which take place within U.S. National Forest areas. The "Project Vicinity" is defined as that area which is within and adjacent to the project rights-of-way and work areas, along with all roads used in connection with the construction activities. The provisions set forth in this section of the Project Fire Plan also specify conditions under which construction activities may be curtailed or shut down while within National Forest areas.

B. The terms and conditions of this Project Fire Plan are designed to be in compliance, or exceed the provisions of the U.S Forest Service “Fire Plan for Construction and Service Contracts” dated 04-26-04 and is incorporated in it’s entirety herein.

C. The Forest Service may conduct one or more inspections for compliance with this fire plan. The number, timing, and scope of such inspections will be committed at the discretion of the agency employees responsible for contract administration. Such inspections do not relieve the Constructor of responsibility for correcting violations of this fire plan or for fire safety in general.

Constructor (or his designated representative) shall:

1. Abide by the requirements of this Fire Plan,

2. Take all steps necessary to prevent his/her employees, subcontractors and their employees from setting fires,

3. Be responsible for preventing the escape of fires set accidentally as a result of construction activity,

4. Participate in the extinguishing of all fires in the event that they cannot be immediately contained until relieved by a representative of the U.S. Forest Service,

5. Assure that all project fire prevention methods, tools, equipment and fire suppression activities are in accordance with any U.S. Forest Service, State, or local codes, the Project Specification requirements, and as stated herein,

6. Complete the Contractor's Plan Regarding Personnel, Equipment and Organization (See last page this document), and furnish the U.S. Forest Service representative with a copy prior to commencing work in the National Forest Project Vicinity,

7. Advise the responsible U.S Forest Service representative of any changes in personnel, equipment and organization as the changes occur, and

8. Assign a fire patrolperson whose responsibility shall be solely to monitor the Constructor's fire-prevention activities. The fire patrolperson shall be equipped with radio or cell phone communication capability. The fire patrolperson shall perform the project fire patrolperson duties as described herein and any other duties as necessary to ensure that the Constructor is abiding by this Specification.

1.7.2 Operating and Construction Guidelines

Prior to commencement of work each day, the Constructor shall obtain the Project Activity Level (PAL) and plan the work accordingly. Constructor shall then, as part of a morning safety tailboard meeting:

- Review fire plan with employees, fire patrolperson, and the Construction Representative;
- Review smoking policy;
- Remind employees to not leave idling vehicles with hot exhaust manifolds on dirt roads with dead combustible vegetation under the vehicle;
- Inspect vehicles and fire fighting equipment daily to ensure equipment is operable and that Fire Plan inspection sheet is still with vehicles;
- Inspect any new vehicles and construction equipment to ensure it is properly equipped with minimum required fire fighting tools and equipment; and
- Keep a detailed daily log which documents locations of all crew and equipment as part of placement in case a fire occurs.

1.7.3 Fire Prevention Measures

1.7.3.1 Permits Required

The Constructor must secure a special written permit from the District Ranger or designated representative before engaging in any of the activities listed below.

- Blasting and Storage of Explosives and Detonators. Explosives Permit is required by California Health & Safety Code, Section 12101,
- Burning,
- Air Pollution (Issued by local State or County Air Pollution Control Districts, as applicable.)
- Camp, Lunch and Warming Fires.
- Welding and Cutting.

1.7.3.2 Regulations for Burning

Before setting any fires whatsoever, the Constructor shall notify the Contracting Officer (CO) of his/her intentions. Special care shall be taken to prevent scorching or causing any damage to adjacent structures, trees, and shrubbery. Piles of material to be burned shall be of such size and so placed that during burning no damage shall result to adjacent objects.

1.7.3.3 Smoking and Fire Rules

Smoking shall not be permitted, except in a barren area or in an area cleared to mineral soil at least 3-feet in diameter. Designated smoking areas shall be assigned by the Constructor. Constructor shall provide closeable airtight and fireproof container designed to contain cigarette butts for designated smoking areas. Constructor shall post signs regarding smoking and fire rules in conspicuous places for all employees to see. Constructor's supervisory personnel shall require compliance with these rules. Under no circumstances shall smoking be permitted while Constructor's employees are operating light or heavy equipment, while commuting to the jobsite from highways, or walking or working in grass and woodlands.

1.7.3.4 Storage and Parking Areas

Equipment service areas, parking areas, and gas and oil storage areas shall be cleared of all flammable material for a radius of at least 50-feet. Small mobile or stationary engine sites shall be cleared of flammable material for a radius of at least 15-feet from such engine. The USFS Contracting Officer (CO) shall approve such sites in writing.

1.7.3.5 Welding

Constructor shall confine welding activity to cleared areas having a minimum radius of 10-feet measured from place of welding. If welding occurs on the line right of way, a fire patrolperson shall observe the operation.

1.7.36 Blasting

Constructor shall use electric caps only. When blasting is necessary in slash areas, a watchperson equipped with shovel and a water-filled backpack can (5 gallon), with hand pump, shall remain in the immediate area for an hour after blasting has been completed.

1.7.3.7 Oil Filter and Glass Jugs

Constructor shall remove from National Forest land all oily rags and used oil filters. Constructor shall prohibit his/her employees using glass bottles and jugs in National Forests.

1.7.4 Fire Fighting and Reporting Tools and Equipment

Constructor shall provide the Fire Fighting tools and equipment as listed below. All tools and equipment shall be in good workable condition and shall meet the following principle Forest Service specifications for fire tools:

- Shovels shall be size "O" or larger and be not less than 46-inches in overall length.
- Axes (or pulaskis) shall have 2-1/2 pound or larger heads and be not less than 28-inches in overall length.

1.7.4.1 For Diesel and Gasoline Operated Engines

For Project Activity Level A or higher, Constructor shall equip all diesel and/or gasoline-operated engines, both stationary and mobile, and all flues used in any contract and camp operations with spark arresters that meet Forest Service standards set forth in the National Wildfire Coordinating Group publication for Multi-position Small Engines, #430-1, or General Purpose and Locomotive, #430-2.

Spark arresters are not required on equipment powered by exhaust-driven turbo-charged engines or motor vehicles equipped with a maintained muffler as defined in California Public Resources Code (CPRC), Section 4442 and 4443.

1.7.4.2 For Vehicles and Construction Operating Equipment

For Project Activity Level A or higher, Constructor shall furnish and have available for emergency use on each vehicle used in conjunction with performance of the work (i.e., truck, pickup trucks, crew vehicle, tractor, grader and other construction equipment) hand tools and/or equipment as follows:

- One shovel,
- One axe (or pulaski), and
- A fully charged 2-A:10-B:C fire extinguisher, or larger.

1.7.4.3 For Machines with Hydraulic System

For Project Activity Level A or higher, Constructor shall equip each mechanized harvesting machine with hydraulic systems, powered by an internal combustion engine (e.g., chipper, feller/buncher, harvester, forwarder, stroke delimber, etc), except tractors and skidders, with at least two 4-A:80-B:C fire extinguishers, or equivalent. In addition, concentrations of wood dust and debris shall be removed from such equipment daily.

1.7.4.4 For Welders

For Project Activity Level A or higher, Constructor shall furnish one shovel and one backpack 5 gallon water-filled tank with pump with each welder.

1.7.4.5 For Non-Self-Propelling Gasoline or Diesel Powered Tools

For Project Activity Level A or higher, Constructor shall furnish one shovel and one pressurized chemical fire extinguisher for each gasoline-powered tool, including but not restricted to compressors, hydraulic accumulators, gardening tools (such as chain saws and weed trimmers), soil augers, rock drills, etc. Fire extinguishers shall be of the type and size

necessary to provide assurance of controlling fire caused by use of portable power tools under various climatic and fuel conditions. Shovel must be kept within 100-feet from each chain saw when used off cleared landing areas.

1.7.4.6 Communication Capability

A. For Project Activity Level A or higher, Constructor shall furnish communication capability (e.g., a serviceable telephone, radio-telephone, or radio system) connecting each operation with the designated Forest Service Dispatch Center. A radio-equipped fire patrolperson vehicle will satisfy this requirement if in operation during the time required.

B. The communication system shall provide prompt and reliable communications between the Constructor's operations and the Forest Service Dispatch Center.

C. The communications system shall be operable during Constructor's operation in the fire precautionary period and at the time fire patrolperson service is required.

D. The communications system shall be capable of contacting the designated Forest Service Dispatch Center within five (5) minutes of discovery of a fire in the Constructor’s operating area.

1.7.4.7 For Project Work Area

A. A project work area is an area where work is concentrated, including a zone extending 500-feet radially from the center of a work area.

B. For Project Activity Level B or higher, the following personnel and equipment shall be provided:

1.7.4.7.1 Fire Patrolperson

Constructor shall provide and stage the following personnel and equipment at each project work area:

A. One dedicated fire patrolperson who shall be responsible for patrol of the activities for prevention, detection, control, and extinguishing of fires;

B. One water filled five (5) gallons backpack pump dedicated to the fire patrolperson;

C. One water filled five (5) gallons backpack pump dedicated to the crew at the project work area; and

D. Proven working and reliable communication equipment, radio or cell phone, which guarantees communication path to 911 operator in case of emergency. This communication equipment can be vehicle equipment but must be portable if remote operation away from the vehicle is commenced.

1.7.4.7.2 Water Tank or Trailer

A. Constructor shall furnish a water tank truck or trailer. The truck may serve a dual purpose. The truck may be used to spray water on roads and work area to suppress dust as per Storm Water Pollution Prevention Plan (SWPPP) requirements. The main purpose shall be to assist in the fire prevention and fire fighting activities. The truck shall never have less than 300 gallons of water aboard, even when en-route to refill.

B. The water tank truck or trailer shall be located on or adjacent to the project work area and meet the following minimum specifications:

1. Contain at least 300 gallons of water;

2. A combination straight stream-fog nozzle with 300-feet of 1-inch fire hose, with no segment longer than 50-feet;

3. Fire hose with nozzle closed shall be capable of withstanding 200 psi pump pressure without leaking, slipping of couplings, distortions, or other failures;

4. Nozzle discharge rating of six to 20 gallons per minute;

5. A pump capable of delivering 23 gallons per minute at 175 pounds psi at sea level;

6. Power unit for pump shall have fuel for at least two hours operation, with ample transport available for immediate and safe movement of tank over roads serving the contract area; and

7. Pump outlet shall be equipped with 1-1/2 inch National Standard Fire Hose thread.

1.7.4.7.3 Support Truck

Constructor shall provide one support truck for each heavy piece of equipment operating solo while mobile. The support truck shall follow the heavy equipment as it operates. As an example, as a grader grades a road, a support truck shall follow. This does not apply to a water truck.

1.7.4.8 For Heavy Construction Operating Equipment

For Project Activity Level C or higher, Constructor shall furnish and have available for emergency use on each heavy construction operating equipment used in conjunction with performance of the work additional fire fighting capabilities as follows:

A. An onboard self-extinguishing fire suppression system capable of extinguishing any equipment caused fire, or

B. A portable Class A fire suppression system capable of extinguishing a 20 foot by 20 foot wild land fire within 5 minutes of discovery. The Class A system shall meet the following specifications:

- 100-feet of 1-inch hose,
- Minimum discharge distance of 50-feet,
- Minimum pressure of 100 psi at discharge orifice, and
- Sustainable for minimum of 5 minutes.

1.7.4.9 For Central Mobilization Area

For Project Activity Level C or higher, Constructor shall equip a centrally designated mobilization area, or at a concentrated long term project work area one sealed box of fire fighting tools. The box shall be sealed with a Forest Service seal to be broken for emergency use only. The box shall be unlocked during transmission line project construction activities.

The box shall contain:

- Three (3) five gallons backpack pump-type fire extinguishers filled with water;
- Five (5) shovels;
- Five (5) axes;
- Five (5) McCleod fire tools;
- One (1) serviceable chain saw of 3-1/2 or more horsepower with a cutting bar 20-inches in length or longer.

1.7.4.10 For Tractor Dozer

For Project Activity Level C or higher, Constructor shall furnish two tractor headlights for each tractor dozer. Tractor headlights shall be attachable to each tractor and served by an adequate power source.

1.7.5 EMERGENCY MEASURES

A. The table set forth below establishes work restrictions and fire precautions that the Constructor must observe at each project activity level. The restrictions are cumulative at each level.

B. Constructor shall conform to the limitations or requirements of Project Activity Level (PAL) obtained from Forest Service before starting work each day. If practicable, Forest Service will determine the following day's activity level by 4:00 p.m. each afternoon. Activity level may be changed at any time if, in the judgment of the Forest Service, fire danger is higher or lower than predicted and such change is consistent with forest management objectives. The decision to change the activity level, and when, and how to take weather observations for that purpose, are within the discretion of Forest Service.

C. PAL applicable to this project shall be for Fuel Model G, National Fire Danger Rating System, and Remote Automated Weather Station (RAWS) or fire danger rating area stated in the legend of Project Area Map.

PROJECT ACTIVITY LEVELS

Project Activity Requirements

Level

A 1. As required by Sections 1.7.4.1 through 1.7.4.6 above

B 1. As required by Sections 1.7.4.1 through 1.7.4.7 above

2. Furnish fire patrolperson. A fire patrolperson is required for mechanical operations, including equipment with high speed rotary heads (i.e., > 1,100 RPM) from cessation of operations until 2 hours after operations cease or sunset, whichever occurs first.

C 1. As required by Sections 1.7.4.1 through 1.7.4.10 above

2. Fire patrolperson is required until sunset local time.

3. The following operations are prohibited from 1:00 PM until 8:00 PM local time:

   a) Blasting
   b) Dead tree felling (with high speed rotary head), limbing, or bucking except recently dead trees.
   c) Operating high speed rotary head equipment.

D 1. As required by Sections 1.7.4.1 through 1.7.4.10 above

2. The following operations are prohibited between hours of 10:00 AM and 8:00 PM local time:

   a) Blasting;
   b) Mechanized operations for felling (with high speed rotary head), bucking, and limbing; and
   c) Felling dead material.

D 3. The following activities may not operate between hours of 1:00 PM and 8:00 PM local time except by special permit:

   a) Rubber tired skidding
   b) Chipping on roads or landings
   c) Cable yarding
   d) Welding or cutting of metal
   e) Road maintenance
   f) Culvert installation
   g) Dirt moving
   h) Helicopter Yarding
   i) Hand slash disposal
   j) Chainsaw operations on landings and roadbeds

4. Other operations may continue after 1:00 PM local time, if they meet the following requirements:

A fire patrolperson is required to walk all areas treated that day once per hour, until sunset local time. This includes chainsaw felling, metal track skidding, machines with chainsaw cutting heads and mastication equipment.

Ev

1. As required by Sections 1.7.4.1 through 1.7.4.10 above

2. The following activities may operate:

   a) Loading of trucks at landing and Hauling
   b) Equipment at approved sites may be serviced
   c) Roads: Dust abatement or rock aggregate installation (does not include pit development)

3. Other operations may continue until 1:00 PM local time when Constructor and Forest Service agree to variance.

E

1. As required by Sections 1.7.4.1 through 1.7.4.10 above

2. The following activities may operate:

   a) Loading of trucks at landing and Hauling
   b) Equipment at approved sites may be serviced
   c) Roads: dust abatement or rock aggregate installation (does not include pit development)

1.7.6 REPORTING FIRES

Constructor shall report all fires to any of the following Forest Service facilities and/or personnel listed below, but not necessarily in the order shown:

	Name	Address and/or Telephone Number
Dispatch Center		
Nearest FS Station		
Inspector		
COR		
District Ranger		
D.R. Designated Rep		

When reporting a fire, provide the following information:

- Your name
- Call back telephone number
- Project name
- Location
- Legal description (Township, Range, Section); and Descriptive location (Reference point).

Fire Information:

- Acres;
- Rate of spread; and
- Wind conditions

Constructor's Plan Regarding Personnel, Equipment and Organization

The Constructor shall, prior to commencing work, furnish the following information relating to key personnel, tools and equipment available for the purpose of fighting wild fires within and adjacent to the Contract Area:

KEY PERSONNEL: (In order of call preferences)

	Name		Address and/or Telephone Number
Fire Supervisor			
Fire Patrolperson			

PERSONNEL AND EQUIPMENT:

	Number		Classification, Type, Make & Model
Fire Fighters			
Fallers			
Power Saws			
Other Equipment			

Contractor's Signature

Date

Contractor's Officer's Signature

Date