

WATER | ENERGY | LIFE



WILDFIRE MITIGATION PLAN

Version 1

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SECTION I. OVERVIEW

A. POLICY STATEMENT

Riverside Public Utilities (RPU) is an award-winning consumer-owned water and electric utility that has provided efficient, reliable services to City of Riverside since 1895. RPU is committed to providing the highest quality electric and water services at affordable rates to benefit the community. In order to meet its goals, RPU constructs, maintains, and operates its electrical lines and equipment in a manner that safeguards against wildfire risks.

B. PURPOSE OF THE WILDFIRE MITIGATION PLAN

This document details RPU's structured protocol to mitigate the threat of electric utility associated wildfires. Included are the steps, programs, policies, and procedures implemented by RPU in order to reduce this risk. This plan is subject to direct supervision by the Riverside City Council and the Board of Public Utilities (Board) and is implemented by RPU leadership. This plan complies with the requirements of Public Utilities Code Section 8387 for publicly owned electric utilities to prepare a wildfire mitigation plan by January 1, 2020, which plan will be updated/reviewed annually thereafter. This Wildfire Mitigation Plan (WMP) is designed to meet the standards set forth by California Senate Bill (SB) 901, which was signed into law in 2018 and tasked all private and publicly owned utilities and electrical corporations to construct, maintain, and operate their electrical systems in a manner that minimizes the risk of wildfire and to annually submit a wildfire mitigation plan.

On July 12, 2019, Assembly Bill (AB) 1054 was chaptered along with AB 111. These two bills are complementary to SB 901. AB 1054 and AB 111 work together to create state government entities and budgets to administer and oversee the state's efforts around the prevention, detection, and mitigation of wildfires. Neither bill adds to the required content for a WMP; however, they provide additional process requirements that require each publicly owned electric utility to submit the WMP to the newly formed Wildfire Safety Advisory Board (Wildfire Board) by July 1 of each year for review and to comprehensively revise its plan at least once every 3 years. Therefore, RPU will prepare and present the WMP per SB 901 guidelines to its governing board by January 1, 2020. Then, in accordance with AB 1054, will submit the WMP to the Wildfire Safety Advisory Board by July 1 of each year. The Wildfire Board will provide comments and make recommendations on mitigating wildfire risks.

RPU also benefits as a department within the City of Riverside. As a municipal public utility, RPU has the benefit of working closely with local fire officials and other safety officials within the City of Riverside. RPU takes on a supporting role when combatting wildfires and works closely with the Riverside Fire Department and the Office of Emergency Management. RPU takes steps in preventative wildfire measures and assists the Riverside Fire Department in any capacity required when a wildfire is active in an area where RPU assets exist. Even when our assets are not impacted – RPU provides support as requested.

C. ORGANIZATION OF THE WILDFIRE MITIGATION PLAN

This document includes the following features:

- Objectives of the plan
- Roles and responsibilities for carrying out the plan
- Identification of key wildfire risks and risk drivers
- Description of wildfire prevention, mitigation, response strategies and programs
- Community outreach and education
- Metrics for evaluating the performance of the plan and identifying areas for improvement
- Review and validation of the plan
- Timelines associated with this WMP

Table 1, Compliance with Public Utilities Code Section 8387(b)

SB 901 Requirement	Description	Plan Section Number
b (2) (A)	An accounting of the responsibilities of the persons responsible for executing the plan.	III
b (2) (B)	The objectives of the wildfire mitigation plan.	I
b (2) (C)	Description of the preventative strategies and programs to be adopted by the publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.	V
b (2) (D)	A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan's performance and the assumptions made that underlie the use of those metrics.	VIII
b (2) (E)	A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.	VIII
b (2) (F)	Protocols for disabling reclosers and de-energizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure	V
b (2) (G)	Appropriate and feasible procedures for notifying a customer who may be impacted by the de-energizing of electric lines. The procedures shall consider the need to notify, as a priority, critical first responders, health care facilities, and operators of telecommunications infrastructure.	VI
b (2) (H)	Plans for vegetation management.	V
b (2) (I)	Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.	V

SB 901 Requirement	Description	Plan Section Number
b (2) (J)	A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, but not be limited to, both of the following:	IV
b (2) (J) (i)	Risks and risk drivers associated with design, construction, operations, and maintenance of the local publicly owned electric utility or electrical cooperative's equipment and facilities.	IV
b (2) (J) (ii)	Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the local publicly owned utility's or electrical cooperative's service territory.	IV
b (2) (K)	Identification of any geographic area in the local publicly owned electric utility's or electrical cooperative's service territory that is a higher wildfire threat than is currently identified in a commission fire threat map, and identification of where the commission should expand the high fire threat district based on new information or changes to the environment.	Appendix B
b (2) (L)	A methodology for identifying and presenting enterprise- wide safety risk and wildfire-related risk.	IV
b (2) (M)	A statement of how the local publicly owned electric utility will restore service after a wildfire.	VII
b (2) (N)	A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following:	VIII
b (2) (N) (i)	Monitor and audit the wildfire mitigation plan.	VIII
b (2) (N) (ii)	Identify any deficiencies in the wildfire mitigation plan or its implementation and correct those deficiencies.	VIII
b (2) (N) (iii)	Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, and other applicable statutes, or commission rules.	VIII
b (3)	The local publicly owned electric utility or electrical cooperative shall present each wildfire mitigation plan in an appropriately noticed public meeting. The local publicly owned utility or electrical cooperative shall accept comments on its wildfire mitigation plan from the public, other local and state agencies, and interested parties, and shall verify that the wildfire mitigation plan complies with all applicable rules, regulations, and standards as appropriate.	IX

SB 901 Requirement	Description	Plan Section Number
C	The local publicly owned electric utility or electrical cooperative shall contract with a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan. The independent evaluator shall issue a report that shall be made available on the internet web site of the local publicly owned electric utility or electrical cooperative and shall present the report at a public meeting of the local publicly owned electric utility's or electrical cooperative's governing board.	IX

SECTION II. OBJECTIVES OF THE WILDFIRE MITIGATION PLAN

A. MINIMIZING SOURCES OF IGNITION



The main objective of this WMP is to document and implement additional controls and mitigation measures in order to lessen the probability that RPU's transmission and distribution systems are the origin or contributing cause of a wildfire. RPU has established a structured set of measures, protocols, and personnel training that have been identified as prudent and cost-effective methods that improve RPU's physical assets and operational defense against wildfires. RPU has integrated its methods of wildfire mitigation with State and regulatory requirements with this WMP and changes to the law will be reflected in subsequent versions of this plan.

B. RESILIENCY OF THE GRID



An additional goal established in this WMP is to document current and planned measures designed to improve the resiliency of RPU's electrical grid. As part of RPU's general practices and part of the development of this plan, RPU stays up to date, evaluates new industry practices, and implements new technologies that will reduce the likelihood of an interruption (frequency) in service and improve the restoration (duration) of service. Methods already implemented to improve the resiliency of the grid include but are not limited to: vegetation management, weather management, exploring new technology, avian protection, new designs, and using root cause analysis as a method of problem solving.

C. IDENTIFYING UNNECESSARY OR INEFFECTIVE ACTIONS



The third and final goal of this WMP is to establish an effective means to quantify and measure the effectiveness of specific wildfire mitigation strategies/plans. Each specific action, mitigation plan, or protocol is ranked and can be determined to be unnecessary or ineffective. RPU will, in accordance with its governing board, establish a working group that will assess whether a replacement or modification is necessary or feasible. This WMP will attempt to merge cost-saving methods with methods weighted by their effectiveness to determine if cost-effective measures would produce the same or improved results.

SECTION III. ROLES AND RESPONSIBILITIES

A. CITY AND UTILITY GOVERNANCE STRUCTURE

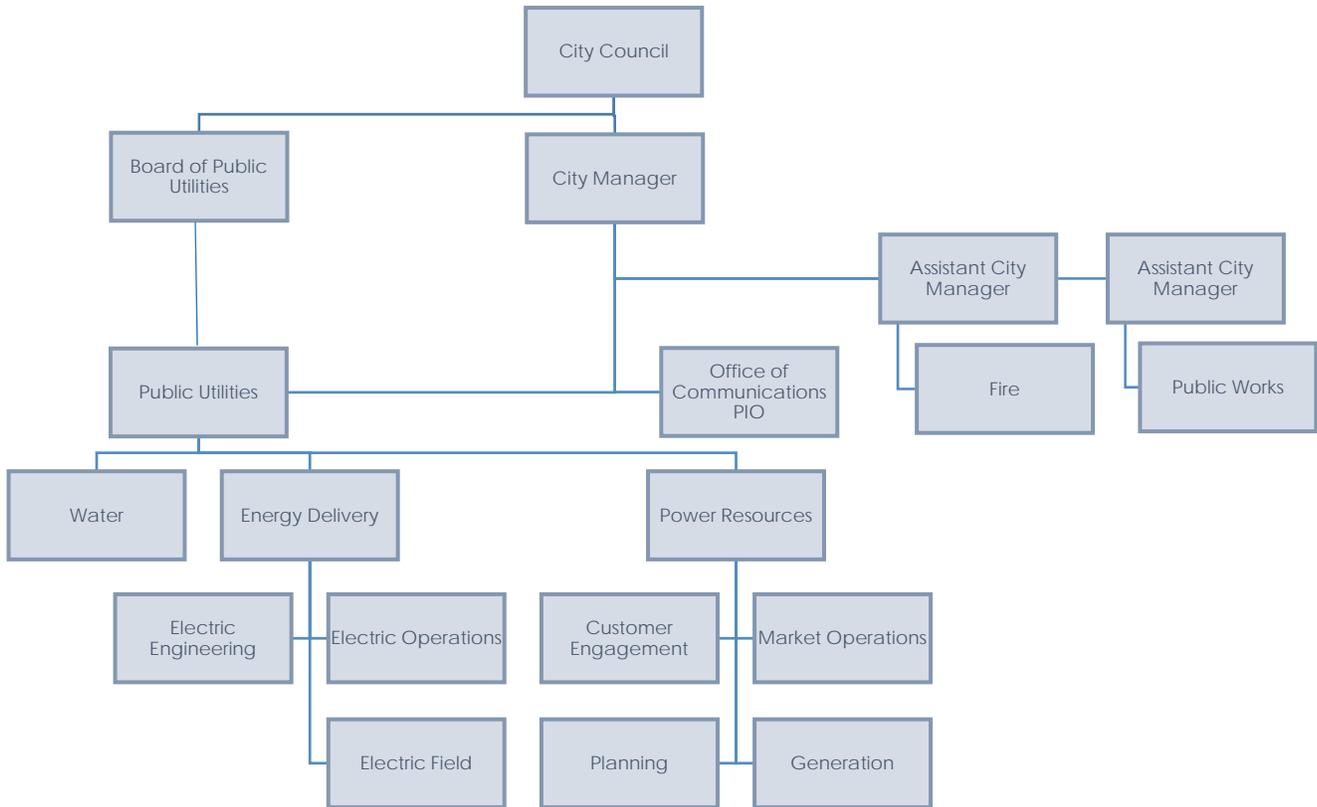


Figure 1, City and Utility Governance Structure

B. WILDFIRE PREVENTION

Responsibilities of RPU staff include the following:

- Operate, inspect, and maintain electrical infrastructure in a manner that will reduce the risks of wildfires.
- Work in conjunction with federal, state, and local fire management personnel as necessary or in an appropriate manner to implement RPU’s WMP.
- Report fires as soon as possible.
- Rectify problems identified by the staff or third-parties that fire protection measures have not been complied with or installed properly.
- Adhere to relevant federal, state, and industry standard requirements or laws, including any industry standards mandated by the California Public Utilities Commission (CPUC).
- Regularly collect and update wildfire data required for this WMP.
- Implement additional and required training programs for all employees involved with

- wildfire mitigation in accordance with the WMP.
- Coordinate with the Fire Department, Water Division of RPU, Public Works, and all relevant City departments to follow-up and monitor high fire risk areas; as well as keeping up to date with new additions to the Wildfire Mitigation Plan to maintain cohesion between departments.

Table 2, Roles and Responsibilities

Role	Responsibilities
RPU Executive Staff	Manages and directs RPU staff in routine and emergency operations
Energy Delivery	Design, install, operate, inspect, and maintain electrical facilities. Takes a supporting role when combatting fires. Vegetation management in and around electric distribution facilities.
Water	Takes on a supporting role when combatting fires.
Fire Department	Takes lead role when suppressing fires.
Public Works	Vegetation management, streets, and trees.
Emergency Operations Plan (EOP) Personnel	Takes lead role in directing and coordinating emergency efforts in a large-scale disaster event.

C. WILDFIRE RESPONSE AND RECOVERY



If the magnitude of a wildfire passes the threshold of a small structure fire to that of a city-wide emergency, the City of Riverside will implement its Emergency Operations Plan (EOP); all emergency efforts will be managed by officials at the Emergency Operations Center (EOC). The City of Riverside has designated emergency management staff and has identified important officials tasked with coordinating response and recovery activities from the EOC. The EOP will only become activated:

- On order of the City Manager as Director of Emergency Services, or Assistant City Manager as the Alternate Director of Emergency Services
- At the declaration of a local emergency or upon the existence of circumstances where a declaration is likely to occur in accordance with the City’s Emergency Management Ordinance
- When the Governor has proclaimed a State of Emergency in an area that encompasses Riverside
- At the declaration of a State of War Emergency
- Or at the triggering of an event identified in the EOP, which includes events such as wildfires

The EOP makes the distinction between an incident and disasters. Incidents are usually a single event, small or large with a defined geographical area and can be handled with local resources with one or a few agencies. Disasters can be single or multiple events (can have many separate incidents associated with it) and demand resources that are beyond local capabilities and affects a widespread population and geographic area. Disasters will warrant the activation of the EOP and will follow the EOP command structure.

During a fire emergency, the chain of command starts with the person who discovered the fire, then to public safety dispatch (911 call center), who then notifies fire dispatch. If the fire is in proximity to any RPU assets, the fire dispatcher will notify and possibly request an RPU

representative. The Fire Department may request RPU to de-energize power lines in an effort to help combat the fire.

According to the EOP, RPU is responsible for coordinating the provisions of emergency power to support emergency response and recovery efforts and normalized community functions. RPU coordinates electric power, power distribution systems, fuel, emergency generators, and water systems. Riverside Public Utilities staff have the following responsibilities associated with fire prevention, response, and investigation:

- Follow protocol set by RPU and this WMP during Red Flag Warnings; and
- Take actions necessary to prevent and suppress fires resulting from electrical facilities operated by RPU, in accordance with RPU protocol and practices.

D. COORDINATION WITH WATER DIVISION



RPU has the added benefit of being able to closely work and coordinate with RPU's Water Division. Any request for assistance or resources made by the Fire Department will be followed and carried out by Water and/or Energy Delivery, depending on the request.

RPU routinely coordinates with the Metropolitan Water District including the Mills Filtration Plant, and Western Municipal Water District. Whether it be routine operations or an emergency situation such as a wildfire, the RPU Water Division will remain in close contact to any water district and work in conjunction with the Fire Department when warranted.

E. COORDINATION WITH COMMUNICATIONS INFRASTRUCTURE PROVIDERS

RPU regularly coordinates with infrastructure providers like AT&T and Comcast. Part owners and those who lease space on RPU assets are both notified directly in the case of an interruption or an emergency event like a wildfire. Those companies who are affected during an event will be notified directly by phone and email.

Any time maintenance or construction work interrupts a critical communications path, such as a fiber optic cable, microwave, or radio, the outage must be coordinated through RPU's Grid Control Center (GCC) and RPU Test. Some interruptions may take days to reroute communication electricity prior to a planned outage and then days to restore normal communications. It may take weeks to prepare for the outage, complete the outage and restore the circuit to normal. Current protocol includes request forms with check boxes for communications, fiber, field, and substation equipment and check boxes for the names of the people who have been notified of the outage for the Field, Substation Maintenance, Test/Communications and Contracts. (Standard Practice, No.120.500)

F. STANDARDIZED EMERGENCY MANAGEMENT SYSTEM



As a local governmental agency, RPU has planning, communication, and coordination obligations pursuant to the California Office of Emergency Services' Standardized Emergency Management System (SEMS) Regulations, adopted in accordance with Government Code section 8607. The SEMS Regulations set roles, responsibilities, and a structured protocol for communications at five different levels: field response, local government, operational area, regional, and state-wide. Following this structure, RPU annually coordinates and communicates with the relevant safety and local/state agencies.

RPU plays an integral role in an emergency and is tasked with working in conjunction with all relevant emergency personnel to secure electrical or water components or any related disruption. According to the SEMS structure, RPU is the lead agency in coordinating electric power, power distribution systems, fuel, emergency generators, and water systems. RPU is responsible for coordinating the provision of emergency power to support emergency response and recovery efforts and normalized community functions.

The primary components within SEMS are:

- Incident Command System (ICS) – a standard response system for all hazards
- Multi-Agency Coordination System (MACS) – as it applies to SEMS, means the participation of various agencies and disciplines involved at any level of SEMS organization working together in a coordinated effort to facilitate decisions for overall emergency activities, including the sharing of critical resources and the prioritization of incidents;
- Master Mutual Aid Agreement (MMAA) and related systems – Is an agreement by cities, counties, and the State joined together to provide for a comprehensive program of voluntarily providing services, resources and facilities to jurisdictions when local resources prove to be inadequate to cope with a given emergency situation; and
- Operational Areas – is one of the five organizational levels in SEMS. An Operational Area consists of a county, and all political subdivisions within the county area. The governing bodies of each county and of the political subdivisions in the county shall organize and structure their operational area. The county will be lead agency for the Operational Area unless another arrangement is established by agreement. Operational Areas facilitate the coordination of resources between its member jurisdictions. Operational Areas also serves as a communication and coordination link between the Region and State level EOCs and local government EOCs within the Operational Area. The County of Riverside serves as the Operational Area coordinator.

In accordance with the SEMS structure, preparation is done through advanced planning at the county level, including the coordination of public, private, and nonprofit organization's efforts. Riverside County stands as the Operational Area and is guided by the Riverside County Disaster Council that is made up of representatives of County Departments and other members as appointed by the County Board of Supervisors. The Operational Area includes local and regional organizations that bring their relevant expertise to the wildfire mitigation, prevention and recovery planning process. These members include: Riverside school districts (including those of surrounding cities that may be affected), Riverside Public Utilities, Riverside Fire Department, non-profits (such as the Red Cross), local hospitals, special districts, communications providers, and other similar organizations not included in this list.

RPU follows the guidelines and is a member of the California Utilities Emergency Association (CUEA), the American Public Power Association (APPA), the Water Alert Response Network (WARN) and the California Municipal Utilities Association (CMUA), which supports the communications between utilities during emergencies and provides guidance to the design, operation, and operation of utility assets. RPU also participates in the Western Energy Institute (WEI) Western Region Mutual Assistance Agreement, which is a bilateral agreement between utilities to ensure assistance in case of an emergency across a number of western states.

SECTION IV. WILDFIRE RISKS AND DRIVERS ASSOCIATED WITH DESIGN, CONSTRUCTION, OPERATION, AND MAINTENANCE

A. RISKS AND RISK DRIVERS ASSOCIATED WITH TOPOGRAPHIC AND CLIMATOLOGICAL FACTORS



Within RPU's service territory and the surrounding areas, the primary risk drivers for wildfire include:

- Extended Drought
- Vegetation Management
- Weather
- High wind
- Terrain
- Changing Weather Patterns (Climate Change)
- Communities at Risk
- Fire History

Each of these risk drivers are discussed below.

Extended Drought: Extended droughts, coupled with changing weather patterns present a continual threat and exacerbate wildfire impact. Droughts lead to the drying of vegetation, which provide wildfires with a ready, more combustible fuel source (see discussion below). In addition, lack of water can lead to accelerated tree decay, which then presents an increased hazard to adjacent energized power lines due to the increased likelihood that a branch or the entire tree could fall and make contact with the energized line.

Vegetation Management: A significant factor contributing to large wildfires is having a readily available dry/dead vegetation which is a highly combustible fuel source. In the recent spurt of wildfires experienced by California in the 2018 fire season, vegetation management, or lack thereof, was a leading cause to why those fires were so damaging. RPU doesn't have many assets that are not in urban zones, but those that lie in high fire threat districts (HFTD) are maintained consistent with guidelines outlined in Section V-D. Vegetation management also includes monitoring tree and tree-limb growth near RPU assets.

Weather: Summers in Riverside tend to be hot and arid, with minimal cloud coverage. Monthly averages for July, August, and September have average highs of above 90°F. In autumn, humidity may drop into the single digits. Winters are mild, cool, with partial cloud coverage, and are relatively wet with an average of 10.33 inches of precipitation annually.

High Winds: A feature of the Inland Empire is a wind pattern known as the Santa Ana winds¹. The Santa Ana winds are known to be accompanied by hot and dry weather and generally occur in autumn. Autumn in Southern California tends to be some of the hottest and driest times of the year. Southern California also typically has its lowest relative levels of humidity during this part of the year. When winds are marginal, upon ignition, fires may grow rapidly. When winds are extreme, upon ignition, fires will have extreme growth, will burn very intensely, and will be

¹ The [National Weather Service](#) defines Santa Ana winds as "Strong down slope winds that blow through the mountain passes in southern California. These winds, which can easily exceed 40 miles per hour (18 m/s), are warm and dry and can severely exacerbate brush or forest fires, especially under drought conditions."

uncontrollable. Coupled with dry weather or drought conditions, high winds or Santa Ana winds can lead to a disastrous situation in which we can expect large and fast-moving wildfires. A useful tool for monitoring the threat and fuel moisture level is provided by the USDA Forest Service and Predictive Services via the National Wildfire Coordinating Group website².

Terrain: The City of Riverside occupies a diverse range of terrain. Although most of the City is urbanized, intermittent sections of rural and undeveloped land with large hills, including the City's landmark Mount Rubidoux, lie along the perimeter of the City and extend into the City along natural land parks and preservation areas. These areas have steep terrain that is hard to access.

Additionally, there is a State Responsibility Area that borders the City of Riverside, known as Box Springs Mountain Reserve and Box Springs Park. The State Responsibility Area within Riverside borders very urban zones, and any ignition from Box Springs has the potential to impact the urban zones of the City of Riverside, including the University of California, Riverside.

Changing Weather Patterns and Climate Change: Climate change presents a significant long-term challenge and if current trends continue, climate change has the potential to raise average and peak temperatures, shorten the rainy season, extend the fire season, and extend the time range for the Santa Ana winds that fan wildfires. These conditions will also be further exacerbated by longer periods and more frequent droughts as well as more intense but shorter rainy years. These conditions result in high growth of weed vegetation during the rainy or wet years that are then dried out in the drought years. Perennial plants and trees will be stressed due to the extended dry periods and increasing temperatures during summer and autumn seasons. The end result is increasingly dry vegetation that provides fuel for wildfires.

Communities at Risk: Urbanized areas are adjacent to elevated fire risk districts. These urbanized areas include residential single-family housing, apartments, medical services, retail shopping and restaurants, schools, industrial zones, mixed-zones, and parks. Within these urban uses are critical care customers, customers with minimal access to internet or other communication, and medical and other critical facilities for emergency response. RPU maintains a database of all critical care customers, individuals who rely on life supporting machines, and will confirm they have assistance in case of an emergency. RPU also works closely with the City's emergency responders to ensure that there is communication within our communities in the event of a wildfire or loss of power. In river-bottoms and other undeveloped areas, there are scattered homeless that must be evacuated during a wildfire or similar emergency.

Fire History: Historically speaking, Southern California is no stranger to dealing with wildfires. However, in the last decade, data shows us an increase in wildfires and their intensity. The City of Riverside, being a mostly urbanized city, has in the past had fewer wildfires than Riverside County. In 2013, a wildfire broke out in the San Jacinto Mountains outside of Palm Springs. The fire lasted 16 days and at its peak there were 3,500 firefighters, 20 helicopters, 12 airplanes, and 260 fire engines. Nearly 6,000 people from surrounding small towns were ordered to evacuate³. The economic impact totaled \$25.8 million dollars in damages and labor associated with fighting the fire⁴. However, there have been many smaller wildfires that have occurred in the City's limits that, if not handled properly, might have led to larger and more dangerous wildfires.

² <https://fsapps.nwcg.gov/psp/sawti>

³ <https://ktla.com/2013/07/20/mountain-fire-continues-to-rage-in-the-san-jacinto-mountains/#axzz2ZqigOO3P>

⁴ <https://www.nbclosangeles.com/news/local/Mountain-Fire-Fully-Contained-After-16-Days--217710051.html>

B. ENTERPRISEWIDE SAFETY RISKS



Public utility companies across the country, big or small, all face a similar challenge. Some larger utility companies may enjoy economies of scale including a larger resource pool; however, they are burdened with a larger operational area that must be maintained and observed, as is the case with the California wildfires in 2017 and 2018. Aging equipment coupled with poor vegetation management in drought conditions led to one of the most destructive fire seasons in California history. Public utility companies must prioritize maintaining overhead electric facilities and minimizing risk, in order to keep delivering safe and reliable powers amidst these growing operational challenges.

Aging equipment that is nearing or past its useful lifespan presents a huge wildfire risk. Public utility companies must prioritize replacing aging equipment as part of an effort to not only mitigate wildfire risk, but to also increase the reliability of their grid.

One of the biggest risks plaguing almost all electrical companies are trees and debris taking out electrical lines. Vegetation management is crucial in maintaining a reliable overhead electrical grid. All California state utilities are required by law to maintain vegetation surrounding electrical assets to:

- Prevent electrocution during a storm or accident
- Reduce the risk of fire
- Prevent unnecessary power outages

C. CPUC FIRE THREAT MAP

The Fire Department worked with RPU to identify wildfire hazard areas during the development of the High Fire-Threat District (HFTD) maps⁵. Subsequent changes to the CPUC Fire Threat Map will be reflected in later versions of this Wildfire Mitigation Plan.

⁵ The CPUC Fire Threat Map can be found using this link: <https://ia.cpuc.ca.gov/firemap/>

SECTION V. WILDFIRE PREVENTATIVE STRATEGIES

A. HIGH FIRE THREAT DISTRICT (HFTD)



RPU directly participated in the development of the California Public Utilities Commission's (CPUC) Fire-Threat map⁶, which designates the High Fire-Threat District (HFTD). In the threat map development, RPU served as a territory lead, and worked with utility staff along with local fire and government officials to identify the areas of RPU's service territory that are at an elevated or extreme risk of power line ignited wildfire. RPU has taken into account the HFTD Tiers into its design, planning, engineering, construction, inspection, maintenance, repair, and clearance practices, where appropriate.

Currently, the La Colina Substation's assets are within a HFTD, and areas along the Santa Ana River lie within an elevated fire risk district. In these areas, there is a high possibility that a wildfire ignites outside of Riverside City's limit and subsequently enters the City of Riverside.

The major urban/rural interface areas of high-fire risk include Mount Rubidoux, the Santa Ana River Basin, Lake Hills, Mockingbird Canyon/Monroe Hills, Sycamore Canyon, Box Springs Mountain and La Sierra/Norco Hills.

RPU Energy Delivery Engineering (EDE) has identified which circuits have overhead facilities in the elevated or extreme high fire threat districts. EDE will download the fire threat information from the Cal Fire Map on their web site showing Local Responsibility Areas. Engineering will identify which circuits have overhead structures in those elevated or extreme fire danger zones.⁷ A map of RPU's electric transmission system overlaid with fire threat districts can be found at the end of this document in Appendix B.

B. WEATHER MONITORING



RPU monitors current and forecasted weather data from a variety of sources including:

- United States National Weather Service (NWS)⁸
- United States Forest Service Wildland Fire Assessment System⁹
- National Fire Danger Rating System¹⁰
- National Interagency Fire Center – Predictive Services for Northern and Southern California¹¹
- The Weather Channel
- Substations equipped with weather monitoring, specifically observe wind speeds and temperature

RPU assigns one of two operating conditions based on the relevant weather data and knowledge of local conditions:

⁶ <https://ia.cpuc.ca.gov/firemap/>

⁷ A map can be found in Appendix B, at the end of this report

⁸ <https://www.weather.gov/fire/>

⁹ <https://www.wfas.net/>

¹⁰ https://www.wfas.net/images/firedanger/subsets/fdc_f_cs.png

¹¹ https://www.predictiveservices.nifc.gov/outlooks/monthly_seasonal_outlook.pdf

1. **Normal:** During normal conditions, no changes are made to operations or work policy.
2. **Red Flag:** If the National Weather Service declares a Red Flag Warning for any portion of RPU’s service territory, the Grid Control Center (GCC) shall monitor NWS or other sources to determine when Red Flag Warnings are issued that include the City of Riverside. GCC will issue a red flag warning alert using the “PU-Red Flag Notification”. GCC will review the circuit maps on the attached list of circuits to determine if the circuits are in normal configuration or if the overhead portions in the elevated or extreme fire threat districts have been transferred to other circuits. On-duty electric troubleshooters will be notified and assigned to conduct patrols of overhead facilities in elevated or extreme fire threat areas. An electric service crew will be notified and assigned to clear any palm frond or debris from overhead lines in elevated or extreme fire threat districts. Electric crews will be assigned to correct any deficiencies on overhead facilities in elevated or extreme fire threat districts identified by the troubleshooter during patrol.

C. DESIGN AND CONSTRUCTION STANDARDS



RPU’s electric facilities are designed and constructed to meet and exceed requirements from relevant federal, state, and industry standards. RPU uses CPUC General Order (GO) 95 as a key standard for design and construction standards for overhead facilities. RPU meets or exceeds all standards set forth in GO 95.

Furthermore, RPU also considers minimum requirements set forth in the National Electric Safety Code (NESC) when applicable standards aren’t available or clearly detailed in GO 95.

D. VEGETATION MANAGEMENT



RPU meets or exceeds the minimum industry standard vegetation management practices. For both transmission and distribution level facilities, RPU meets: (1) Public Resources Code section 4292¹²; (2) Public Resources Code section 4293¹³; (3) GO 95 Rule 35 (as shown in the tables below); and (4) the GO Appendix E Guidelines to Rule 35. These standards require increased clearances in the High Fire-Threat

District. The recommended time-of-trim guidelines do not establish a required standard but do provide useful guidance for utilities. RPU will use specific knowledge of growing conditions and tree species to determine the appropriate time of trim clearance in each unique circumstance.

¹² Public Resources Code Section 4192 states, “... any person that owns, controls, operates, or maintains any electrical transmission or distribution line upon any mountainous land, or forest-covered land, brush-covered land, or grass-covered land shall, during such times and in such areas as are determined to be necessary by the director or the agency which has primary responsibility for fire protection of such areas, maintain around and adjacent to any pole or tower which supports a switch, fuse, transformer, lightning arrester, line junction, or dead end or corner pole, a firebreak which consists of a clearing of not less than 10 feet in each direction from the outer circumference of such pole or tower....”

¹³ Public Resources Code 4293 explicitly states, “... maintain a clearance of the respective distances which are specified in this section in all directions between all vegetation and all conductors which are carrying electric current: (a) For any line which is operating at 2,400 or more volts, but less than 72,000 volts, four feet.”.

Table 3, GO 95, Rule 35

Case	Type of Clearance	Trolley Contract, Feeder and Span Wires: 0 to 5kV	Supply Conductors and Supply Cables: 12.47kV	Supply Conductors and Supply Cables: 34.5kV	Supply Conductors and Supply Cables: 69kV
13	Radial clearance of bare line conductors from tree branches or foliage	18 inches	18 inches	18 inches	18 inches
14	Radial clearance of bare line conductors from vegetation in the High Fire-Threat District	18 inches	48 inches	48 inches	48 inches

The table below lists recommended minimum clearances that apply to RPU’s assets and should be established, at the time of trimming, between the vegetation and the energized conductors and equipment components. RPU, at its discretion, may see the need to exceed clearances listed above and below in order to ensure compliance and public safety until the next scheduled maintenance. RPU takes various factors into account when determining additional clearances which include: line operating voltage, length of span, line sag, planned maintenance cycles, location and type of vegetation, vegetation growth rate and characteristics, local climate, fire risk, and vegetation trimming requirements that are applicable to State Responsibility Area lands pursuant to Public Resource Code Sections 4102¹⁴ and 4293.

Table 4, GO 95, Rule 35, Appendix E Guidelines – Radial Clearance at Time of Trimming

Voltage of Lines	Table 3 Case 13 (non-HFTD)	Table 3 Case 14 (HFTD)
Radial clearances for any conductor of a line operating at 2,400 or more volts, but less than 72,000 volts.	4 feet	12 feet

When working in the High Fire-Threat District, RPU annually performs an evaluation of every individual tree that has the potential to strike overhead facilities if it were to fall. In cases where hazard trees (dead, dying, diseased, or leaning) could strike overhead facilities, RPU will work with the land owner to remove the tree or portion of the tree that poses a risk.

In addition to the vegetation management RPU practices, Riverside property owners are encouraged to practice their own forms of vegetation management. The City of Riverside Fire Department has distributed a Wildfire Action Plan called “READY! SET! GO!” and is supported by the Riverside Country Fire Chiefs Association. “READY! SET! GO!” is aimed at individual homeowners to first, have a plan for when a wildfire threatens their home; and second, to recommend ways to make their property more defensible against encroaching wildfires, with an emphasis on vegetation/fuel management.

State Responsibility Areas (SRA) are within the City of Riverside. East of University of California, Riverside, lies the Box Springs Mountain Reserve which is designated as a SRA. The Box Springs Mountain Reserve is not in proximity to any RPU substations. However, any wildfire started in the Box Spring Mountain Reserve has the potential to travel and impact the highly urban surrounding areas, and thus has potential to interfere with overhead lines within the area.

¹⁴ “State responsibility areas” means areas of the state in which the financial responsibility of preventing and suppressing fires has been determined by the board pursuant to Section 4125, to be primarily the responsibility of the state.

E. INSPECTIONS



RPU meets the minimum inspection requirements provided in CPUC GO 165¹⁵ and CPUC GO 95, Rule 18. Following these Orders, RPU inspects electric facilities in the High Fire-Threat District (HFTD), as well as the other areas of its service territory. Furthermore, RPU staff leverage their knowledge of specific operational, environmental and geographical conditions to determine when areas may require more frequent inspections.

If RPU staff discover a utility facility in need of repair that is owned by an entity other than RPU, they will issue a notice to repair to the facility owner and work to ensure that necessary repairs are completed promptly.

RPU works to ensure that all inspections to be performed within the High Fire-Threat District are completed before the beginning of the historic fire season, although in California the fire season is adjusted based on local conditions. RPU monitors drought conditions and other relevant factors throughout the year to determine if inspections should be completed on a shorter timeframe.

The RPU Inspection Program requires overhead facilities to have a patrol inspection annually and a detailed inspection every five years. Transmission lines are patrolled by helicopter about three times per year in addition to the patrol and detailed inspections. The patrol inspection is sufficient to identify gross defects. A detailed inspection involves a close visual inspection of the facility that is intended to identify minor defects. Defects that are identified are scheduled for repair in priority order, per GO 95 Rule 18B. These corrective action timeline requirements range from immediately to 60 months, depending on the level of potential impact to safety or reliability.

F. WORKFORCE TRAINING



RPU has implemented work rules and complementary training programs for its workforce to help reduce the likelihood of the ignition of wildfires. Following the SEMS structure, RPU participates in annual training exercises. RPU only conducts wildfire training when it has been one year since a wildfire activation. However, this does not include routine property or structural fires.

Prior to the wildfire season, RPU leadership meets with the City of Riverside's Fire Marshal to go over areas of concern that RPU and the Fire Department might have. Areas of concern like river-bottoms and elevated/extreme fire districts are evaluated if additional resources or actions are needed.

G. RECLOSING POLICY



Reclosing takes place on RPU's 4kV and 12kV distribution system. RPU does not reclose 34.5kV and 69kV sub-transmission lines. The topography of the distribution circuit determines what the reclosing cycle will be. This is as follows:

- If the distribution circuit is fully underground, reclosing is not enabled

¹⁵ http://docs.cpuc.ca.gov/PUBLISHED/GENERAL_ORDER/159182.htm

- If the distribution circuit is less than 50% underground, two reclosing cycles occur before the distribution circuit is locked open
- If the distribution circuit is more than 50% underground, one reclosing cycle occurs before the distribution circuit is locked open

Relay settings cannot globally be changed based on adverse weather conditions. However, Grid Control Operators have the ability to remotely block circuit breaker reclosing on all 4kV or 12kV distribution circuits. Grid Control shall monitor wind speed readings at Riverside and Freeman Substations to determine if wind speeds meet or exceeds 49.5 mph. This threshold is 70% of the Grade A construction standard. The SCADA system scans all the points in the system every 2 seconds. The level 1 alarm for both wind speed points have been set to 49.5 mph. When the wind speed exceeds the level 1 alarm, RPU Grid Control Center (GCC) shall:

1. Block automatic reclosing on circuits serving overhead facilities in high fire-threat areas
2. Notify Public Safety Dispatch that the Public Utilities Fire Prevention Plan has been implemented
3. Notify the RPU Red Flag Notification distribution list, including the Fire Department Battalion Chiefs, by using the Outlook email distribution list "RPU Electric Ops/Field - RFD Fire Coordination" that the Public Utilities Fire Prevention Plan has established

If an outage occurs on one of these circuits:

1. Overhead facilities in high fire-threat areas must be patrolled and found to be clear before RPU Grid Control Center (GCC) restores service to those facilities
2. Normal service restoration procedures may be used once the overhead facilities in the elevated or extreme fire threat areas have been isolated

Once the Red Flag Warning expires and wind speeds drop below trigger levels, Grid Control will return to normal operations.

SECTION VI. DE-ENERGIZATION



Wildfire threats and de-energization is unlikely to come from RPU's distribution system but may result from threats posed by or to the statewide transmission system specifically including the sub-transmission lines from the Vista Substation and operated by Southern California Edison (SCE) that provide RPU's one point of interconnection to the regional grid.

RPU has the authority to preemptively shut off power due to fire-threat conditions at their discretion; however, this option will only be used in rare and necessary circumstances such as a request from the Fire Department. When a public safety issue is validated by RPU, if necessary, RPU will de-energize electric facilities only until the public safety issue is resolved.

In the event that SCE de-energizes the sub-transmission lines from the Vista substation, RPU will have to evaluate whether internal generation will be sufficient to serve the customer load. RPU may need to initiate rolling blackouts or de-energize specific areas of the distribution system to ensure that electric service is maintained to critical circuits, such as those serving hospitals and other critical facilities.

A. IMPACTS TO PUBLIC SAFETY



As described previously, threats on the distribution system will likely only cause localized, circuit level impacts or power outages. The public safety impacts from such de-energization events affect three primary groups of entities:

- Impacts to customers, particularly customers with medical support devices or needs that require electricity support (e.g. customers on RPU's Utilicare rate)
- Impacts to public safety infrastructure including, hospitals and other medical facilities and other emergency response facilities
- Impacts to critical support infrastructure such as traffic signals, streetlights, water systems, sewage systems, telecommunications facilities, and cell tower facilities

In all three cases, RPU initiates communications protocols that include monitoring, public notifications, and customer or entity specific notifications. In all cases, it is the intent of RPU to provide as much advance notice as possible to the potential of an event. The type of event, significance of the event - whether circuit level compared to system-wide, and duration of the event will determine the level extent of the outreach to customers. Customer notification procedures are described in the following section.

B. CUSTOMER NOTIFICATION PROCEDURES



RPU recognizes that de-energization of power lines may represent the safest response to conditions that increase the likelihood of a wildfire from the electrical grid. To respond to such conditions, RPU will follow the procedures established in its Emergency Operations Plan (EOP), which conforms to the California Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS).

The actions identified and expected to be undertaken in the EOP focus on the following:

- Protection of lives, property and the environment
- Maintenance and continuity of critical governmental operations
- Ensuring a timely transition to short term and long-term recovery.

For communications specifically related to de-energizations, RPU will utilize multiple communications channels to notify provide information to customers, partner agencies and emergency response entities. The City of Riverside's 311 call center, the RPU customer service center, customer program and services representatives, and City and RPU communications teams and public information officers all play a role in providing information throughout the event.

RPU will begin general notifications as early as 72 hours in advance of the de-energization. However, communications will continue throughout an event and until power is restored on any de-energized lines.

A variety of communications channels will be utilized to contact customers during a potential or actual de-energization event:

- RPU's website, social media, and traditional media
- Phone messages, texts and e-mail
- Direct contact through neighborhood visits and door hangers when
 - The event is localized on a single circuit
 - For customers signed up for RPU's Utilicare rate that may be impacted and have identified their dependence on medical care devices



Website, Social Media, and Traditional Media: In all cases, information about potential and actual de-energizations, including conditions that could result in a de-energization such as red flag warnings issued by the National Weather Service, are provided on the RPU website and through social media postings. Public notification through the RPU website and social media are sent out at the start of the weather conditions that could result in a de-energization as well as throughout the weather-related event to ensure that customers have current and accurate information as it relates to the City of Riverside. The website also includes how customers can prepare for potential de-energizations, power shutoffs in general, and information on what to expect. Social media posts throughout an event for which de-energization is possible provide updates on the status of the event and helpful tips for customers to use to prepare for potential de-energization and possible unplanned weather-related power outages. The same messages are posted on RPU's Facebook and Instagram accounts and announced on its Twitter feed. Other social media avenues may be used.

Public information staff will coordinate traditional news media communications such as press releases to provide customers with up to date information when appropriate, such as if RPU expects to de-energize any power lines.



Phone Messages, Texts and E-mail: When de-energization is expected or occurring, RPU will also utilize event specific messaging to customers through e-mails or texts. Customers can provide the information and allow RPU to contact them when they establish or update their utility accounts. Additionally, customers and others in their households can sign up for the City of Riverside's *RiversideAlert* to receive notifications about potential de-energization outages. The *RiversideAlert* system allows individuals besides the RPU account holder to be notified in the event of a de-energization outage.

A recorded message will be sent to customers or individuals signed up to *RiversideAlert* when there are anticipated de-energization outages on either individual circuit or in the event of rolling blackouts. The message will include event information and direction to RPU's website for up-to-date information.



Direct Contact with Customers: If specific circuits are targeted for potential de-energization, affected customers will be notified by RPU customer service or programs and services staff by phone, text or e-mail. If the customer cannot be reached, RPU staff will go to the customer's home or business in an attempt to reach them directly. Door hangers will be left on customer's homes or businesses if time is available.

RPU's Utilicare customers that have medical devices or other care that is dependent on electricity will also be directly contacted, either by phone or, if RPU is unable to reach them by phone, in-person.

C. KEY STAKEHOLDER AND PARTNER AGENCY NOTIFICATIONS



When de-energization is expected or occurring, RPU must also notify key stakeholders and partner agencies because de-energization related power outages have direct impacts to the activities and services they provide. RPU maintains regular working relationships at both staff and executive levels with these entities as part of its regular working coordination and customer service and as such will utilize these relationships in the notification process.

RPU's programs and services representatives will notify key customers of the event information and provide a direct access to information related to an immediate event. Key customers include:

- Hospitals, assisted living, nursing homes, and senior care facilities
- Universities and school districts
- Large industrial and commercial customers
- Utility providers (e.g. So Cal Gas and Western Municipal Water District)

RPU's communications staff and public information staff will coordinate communication to the City Council, Board of Public Utilities, media, state and federal elected officials and representatives of regional, state, and federal agencies that may be impacted by the de-energization. These agencies will be kept apprised of an event and RPU's actions related to the de-energization event.

RPU's staff, including executive management, communications staff, and public information staff will coordinate with partner agencies (including airport, water and telecommunications utilities/companies) and first responders via a variety of channels as deemed appropriate for the de-energization event.

D. COMMUNITY OUTREACH AND PUBLIC AWARENESS

RPU recognizes that it is vital to increase public awareness of wildfire risk, how a customer can prepare for wildfire and outages, and how RPU is addressing the potential for its facilities and equipment to cause a wildfire. As noted above, a website has been created that provides

information about RPU's efforts relative to prevention of and how electric equipment cause wildfires.

As a department of the City of Riverside, RPU also has the opportunity to work closely with the City's emergency response team. In particular, RPU and the Riverside Fire Departments take a proactive role in community outreach and public awareness, especially for fire and wildfire awareness. Information on wildfire risk and the potential for de-energization power outages is being incorporated into appropriate emergency preparedness materials provided by the City and Fire Department.

Brochures, lectures, videos, and other interactive media are readily available on the Riverside Fire Department's website. Community outreach programs are coordinated by the Fire Department and include information from RPU include: Purple Ribbon Month, Fire Expo/Open House, Learn Not to Burn, Fire for Life, Fire Station Tours, School Visits, Water Safety Awareness, Emergency Preparedness, and Career Fairs. The Riverside Fire Department's Public Education Coordinator serves as a liaison between schools, businesses, and other organizations to provide information regarding fire and life safety topics and regularly coordinates with RPU.

SECTION VII.RESTORATION OF SERVICE

RPU will not restore service until the area of trouble is fully isolated and fully patrolled. When RPU gets the all-clear from ground crews and emergency personnel, RPU will restore service. RPU will follow this same protocol in the event of a wildfire.

SECTION VIII. MONITORING THE PLAN

A. METRICS AND ASSUMPTIONS FOR MEASURING THE PLAN PERFORMANCE

RPU's performance metrics are focused on the success of fire prevention strategies at lowering the risk of catastrophic wildfires. The metrics process would evaluate the effectiveness of a fire prevention strategy in reducing the risk of wildfire ignition and spread. This performance metric tracking approach will utilize a format that offers the ability to track compliance trends over time, correct issues as they occur, and adapt metrics as conditions mandate. These metrics will be measured by RPU personnel at timeframes indicated, and as needed to ensure adequate goal achievement tracking. As with this WMP, overall performance metrics will be managed according to an adaptive management approach, which will facilitate changes in the measures and metric goals, as well as the measurement timeframes, if determined necessary. However, RPU recognizes that there may be unforeseen circumstances that result in the inability to meet a specific metric goal for a given timeframe. This does not necessarily indicate a failure in the process that requires immediate action. The overall metric goal achievement trend will be the focus of this performance measurement process, with a primary focus on maintaining upward trending performance.

Table 5, Metrics to Measure Plan Performance

Category	Metric	Responsibility	Frequency
Equipment Failure	<ul style="list-style-type: none"> Number of wire down events caused by conductor failure in Tier 2 HFTD Number of pole failures in Tier 2 HFTD Number of transformer failures in the Tier 2 HFTD 	Grid Management	Annually
Conventional Fuse Operations	<ul style="list-style-type: none"> Number of conventional transformer fuse operation events in Tier 2 HFTD Number of conventional lateral fuse operation events in Tier 2 HFTD 	Grid Management	Annually
Wire Contact with Foreign Object(s)	<ul style="list-style-type: none"> Number of outage events caused by wire contact with an animal Number of outage events caused by wire contact with mylar balloons Number of pole failures caused by vehicle contact in the Tier 2 HFTD 	Grid Management	Annually
Wire Contact with Vegetation	<ul style="list-style-type: none"> Number of outage events caused by wire contact with vegetation 	Grid Management	Annually
Inspection and Maintenance	<ul style="list-style-type: none"> 100% of vegetation management inspections in the Tier 2 HFTD completed on time 	Grid Management	Annually
Operations	<ul style="list-style-type: none"> Number of outages on circuits in Tier 2 HFTD Number of outages on circuits in Tier 2 HFTD during RFW days Number of ignitions caused by RPU electrical infrastructure in Tier 2 HFTD 	Electric Operations Manager	Annually

Category	Metric	Responsibility	Frequency
Extreme Weather Conditions	<ul style="list-style-type: none"> Number of RFWdays Number of times automatic reclosing was defeated on Tier 2 HFTD 	Grid Management	Annually
Fire History Events	<ul style="list-style-type: none"> Number of events recorded with fire reference (e.g. pole fire, equipment fire) Downward trend of number of fire events 	RPU Outage Database	Annually

B. IMPACT OF METRICS ON THE PLAN

A discussion of how the application of previously identified metrics to previous plan performance has informed the plan, is required by SB-901. Because this is the initial year of RPU's Wildfire Mitigation Plan, there are no historic metrics.

In the initial years of this plan, RPU anticipates that there will be relatively limited data gathered through these metrics. However, as the data collection history becomes more robust, RPU will be able to identify areas of its operations and service territory that are disproportionately impacted. RPU will then evaluate potential improvements to the plan.

C. MONITORING AND AUDITING OF THE PLAN

This Wildfire Mitigation Plan will be presented to the City Council for initial approval. Then, RPU will present this plan to the Board of Public Utilities on an annual basis. Additionally, a qualified independent evaluator will provide a report on this plan to the Board of Public Utilities. As well as submitting the plan to RPU's Board, the WMP must also be presented to the Wildfire Safety Advisory Board by July 1st of each year, in accordance with AB 1054. AB 1054 allows annual updates but requires comprehensive submissions every 3 years.

Currently, data gathered on the metrics of this plan is limited. As the data collection becomes more and more extensive, RPU will be able to identify areas of its operation and service territory that are disproportionately impacted. RPU will monitor and evaluate data for potential improvements to the plan. RPU Executive Staff has the responsibility of ensuring risks are continuously monitored, and the Wildfire Mitigation Plan is adhered to.

D. IDENTIFYING AND CORRECTING DEFICIENCIES IN THE PLAN

Annually, the Board and Executive Staff will review the plan and update it if any subsequent laws are passed that require additional fire prevention/mitigation measures. Staying up to date with the latest regulatory requirements while monitoring historical data associated with the wildfire mitigation plan is an essential part of correcting deficiencies in the plan. The Board examines staff progress made on the risk mitigation process, deliberates the action being planned or considered, and determines if it is appropriate to correct any aspects of the plan.

Ultimately, the Board of Public Utilities, in consultation with independent evaluators and RPU staff, shall identify and correct any potential deficiencies discovered in this Wildfire Mitigation Plan.

RPU will also incorporate any recommendations made by the State's Wildfire Safety Advisory Board after each annual review.

E. MONITORING THE EFFECTIVENESS OF INSPECTIONS

RPU field operations conduct inspections periodically and when warranted. Line clearance contractors have their vegetation maintenance inspected by the inspectors. Follow-up review is then conducted by RPU troubleshooters. The process goes as follows: a detailed inspection is done by a contractor, which in turn is verified by the RPU inspector and Contract Administration on a sample basis. Each RPU crew's work is inspected by a supervisor and verified by the superintendent. Using Root Cause Analysis, Corrective Action Reports are written when deficiencies in the inspections are witnessed.

SECTION IX. INDEPENDENT EVALUATOR

Public Utilities Code Section 8387 requires RPU to contract a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of this Wildfire Mitigation Plan. The Independent evaluator must issue a report that is posted to RPU's website. This report must also be presented to the City Council at a properly noticed public meeting. An evaluator will be selected by RPU and the City of Riverside based on who is the best qualified, using a selection matrix and weighted factors such as cost.

SECTION X. REFERENCES

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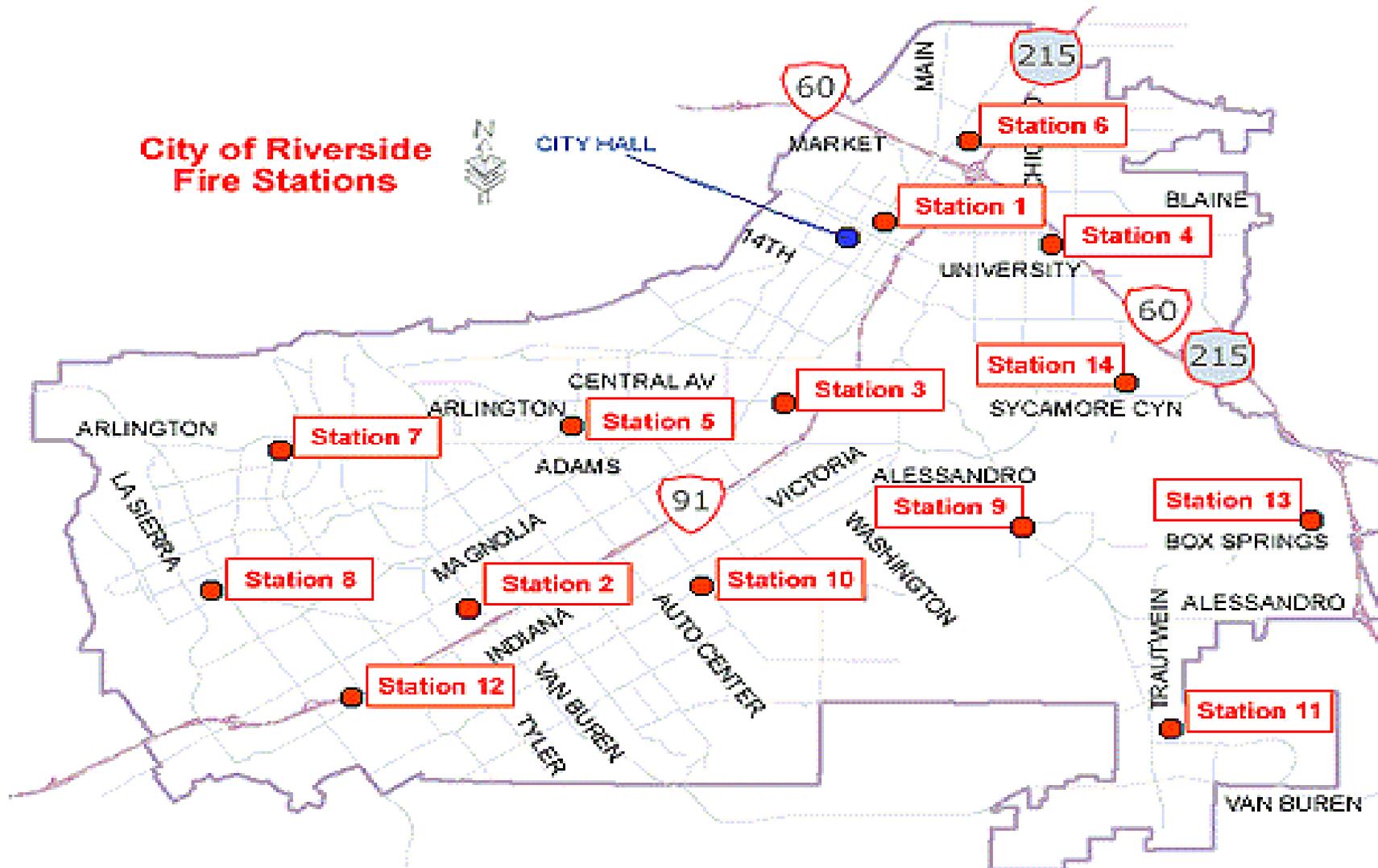
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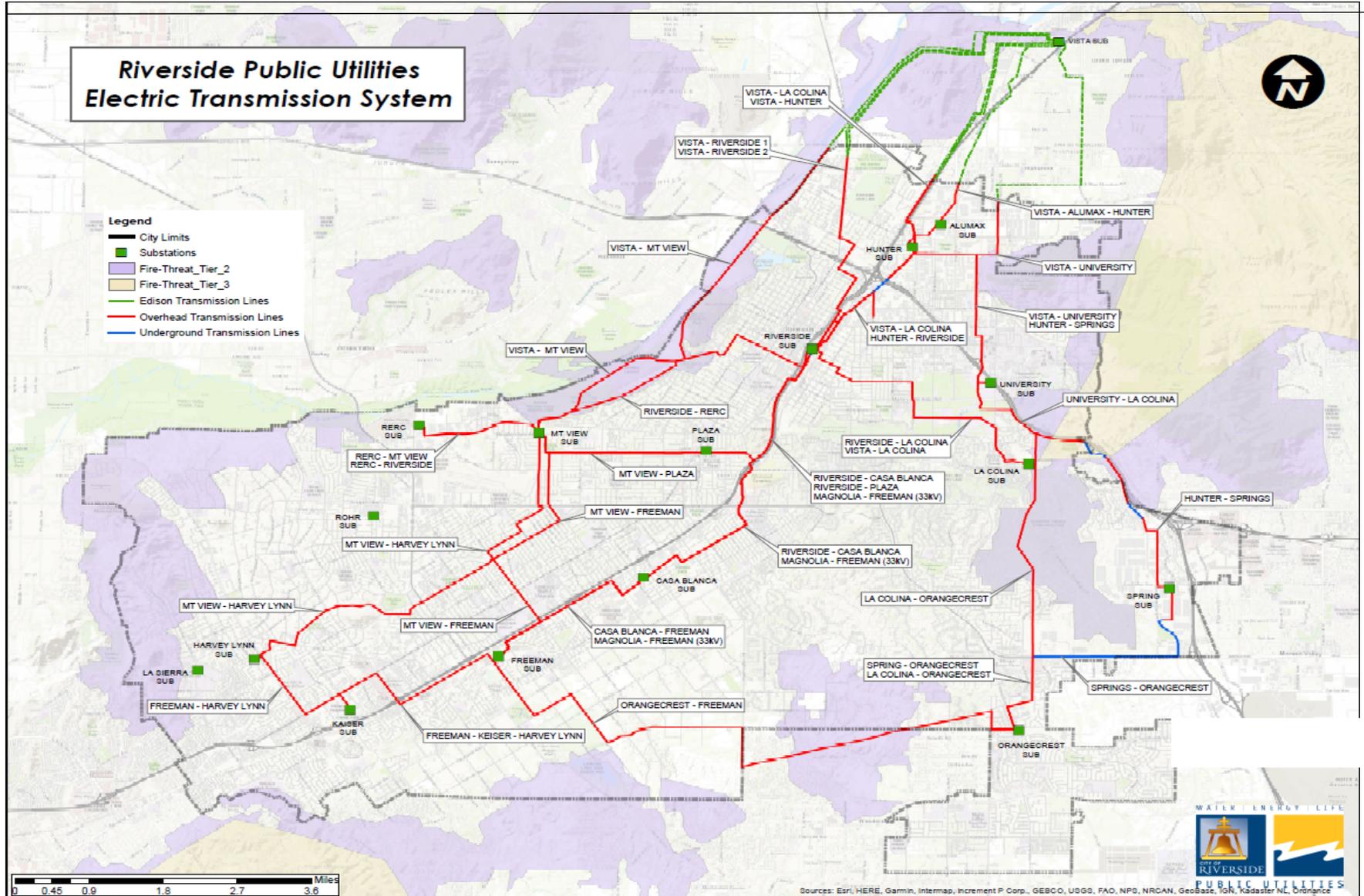
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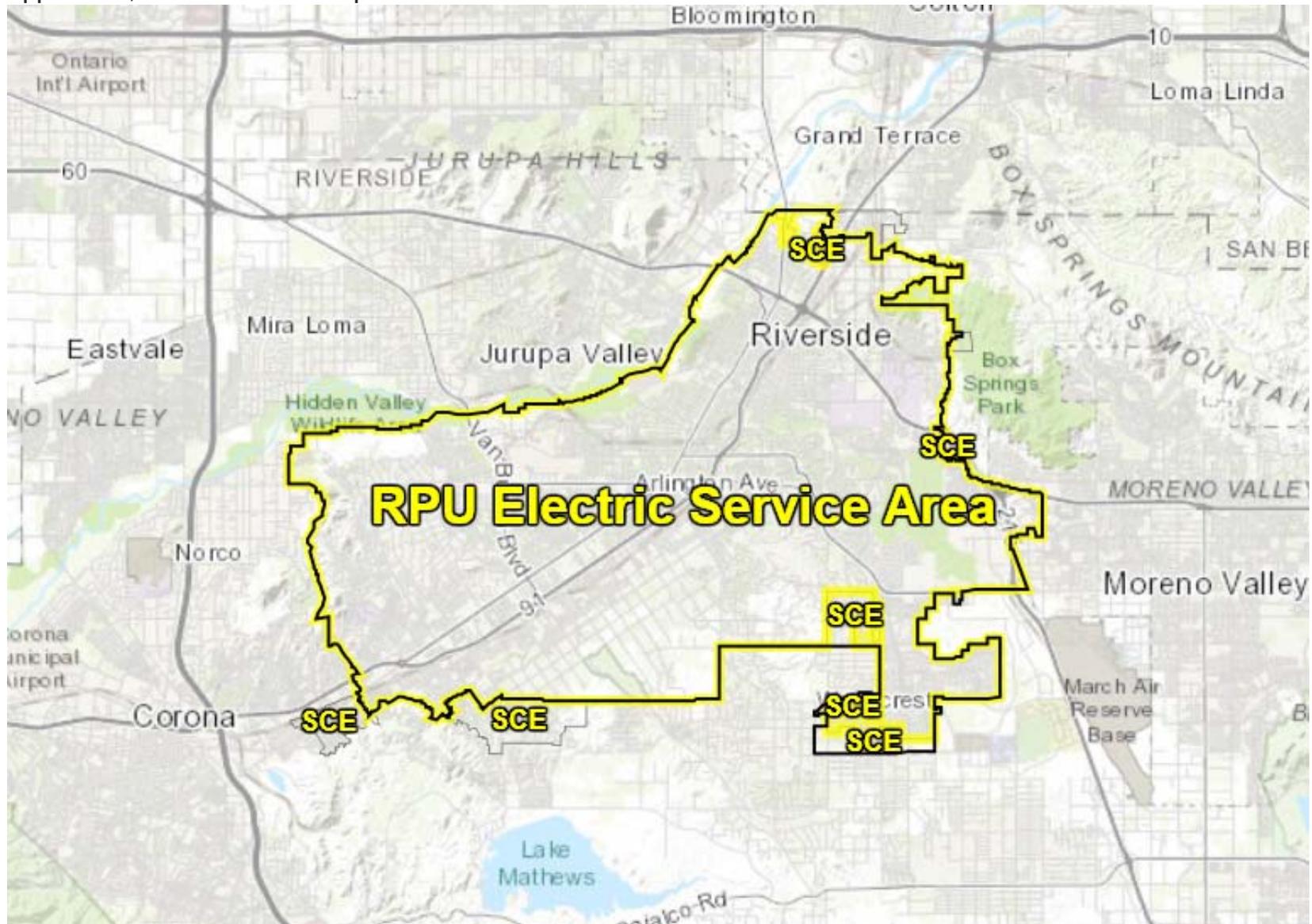
Appendix A, Fire station map



Appendix B, Fire Threat Map



Appendix C, RPU Service Area Map



Appendix D, Wildfire Mitigation Plan At-Risk Circuits

To be determined

Wildfire Mitigation Plan At-Risk Circuits				
Low/Tier 1	4kV	12kV	66kV	Circuit Miles
Elevated Threat/Tier 2				
Extreme Threat/Tier 3				

Appendix E, Planned Mitigation Strategies

Metrics to Evaluate Plan Performance

Mitigation Activity		Risk Driver Addressed			
		Electrical Equipment Failure	Conventional Fuse Operation	Wire Contact with Foreign Object	Wire Contact with Vegetation
1	Deteriorated Pole Replacements	X			X
2	Pole Loading Assessments & Remediation	X			X
3	Overloaded Transformer Replacements	X	X		
4	Distribution Construction Standards Improvements		X	X	X
5	Annual Patrol Inspection (GO 165)	X		X	X
6	Vegetation Management Program		X		X
7	Intrusive Pole Inspections	X			X
8	Block Reclosing during RFW			X	X
9	Line Patrol after outage event during RFW		X	X	X
10	Enhanced Infrared Inspections	X	X		
11	Grid Resiliency Devices	X	X	X	X
12	Use of Big Data and Predictive Analytics to Mitigate Occurrences and Monitor Effectiveness	X	X	X	X
13	WMP Mapping and HFT areas kept current	X	X	X	X

The City of Riverside Fire Department concurs with the Riverside Public Utilities Wildfire Mitigation Plan.

