



2021

WILDFIRE MITIGATION PLAN

June 15, 2021

TABLE OF CONTENTS

1.	OVERVIEW.....	4
	A. Policy Statement.....	4
	B. Purpose of the Wildfire Mitigation Plan.....	4
	C. Background	4
	D. Organization of the Wildfire Mitigation Plan.....	5
2.	OBJECTIVES OF THE WILDFIRE MITIGATION PLAN.....	6
	A. Minimizing Sources of Ignition.....	6
	B. Resiliency of the Electric Grid.....	6
	C. Wildfire Prevention Strategies	6
	D. Identifying Unnecessary or Ineffective Actions	7
3.	ROLES AND RESPONSIBILITIES.....	7
	A. City Governance Structure	7
	B. Roles and Responsibilities for Plan Execution.....	9
	C. Coordination with Joint Pole Infrastructure Providers	10
	D. Coordination with City Departments	10
	E. Wildfire Response and Recovery	11
	F. Standardized Emergency Management System.....	11
4.	WILDFIRE RISK AND RISK DRIVERS	13
	A. Enterprisewide Safety and Wildfire Risk Methodology	18
	B. Geographical and Climate Risk	18
	C. CPUC High Fire Threat Districts.....	19
5.	WILDFIRE PREVENTION STRATEGY	19
	A. Strategy - Vegetation Management.....	19
	B. Strategy - Enhanced Inspections.....	20
	C. Strategy - Situational Awareness.....	21
	D. Strategy - Weather Monitoring.....	21
	E. Strategy - Operational Practices.....	21
	F. Strategy - System Hardening (Design and Construction).....	22
	G. Strategy - Public Safety and Notification	23
	H. Strategy - Reclosing and De-energization	23
6.	COMMUNITY OUTREACH AND EDUCATION	24
7.	RESTORATION OF SERVICE.....	25

8.	EVALUATION OF THE PLAN	26
A.	Metrics for Measuring Plan Performance	26
B.	Impact of Metrics on Plan	27
C.	Monitoring and Auditing the Plan.....	27
D.	Identifying and Correcting Deficiencies in the Plan.....	27
E.	Monitoring the Effectiveness of Inspections	27
9.	INDEPENDENT EVALUATOR	28

1. OVERVIEW

A. POLICY STATEMENT

The City of Lompoc Electric Utility Division's (Lompoc Electric) overarching goal is to provide safe, reliable, and economic electric service to the City of Lompoc (City). In order to meet this goal, Lompoc Electric constructs, maintains, and operates its electrical lines and equipment in a manner that minimizes the risk of catastrophic wildfire posed by its electrical lines and equipment.

Lompoc Electric has been operating its electric system since 1923. Lompoc Electric is a division within the Utility Department of the City. Lompoc Electric owns and operates a system that includes power generation and distribution facilities and uses Pacific Gas and Electric (PG&E) for transmission.

Distribution system protection for both public and asset safety has been paramount. Lompoc Electric has been successful in preventing the start of wildfires from its infrastructure. As of the adoption of the Plan, Lompoc Electric has not had a wildfire start from its electrical lines or equipment. The implementation of this Wildfire Mitigation Plan will help Lompoc Electric continue its successful practice of preventing wildfires from its electrical lines and equipment.

B. PURPOSE OF THE WILDFIRE MITIGATION PLAN

This Wildfire Mitigation Plan (Plan) describes the range of activities that Lompoc Electric is taking or considering, to mitigate the threat of power-line ignited wildfires, including its various programs, policies, and procedures. The Plan complies with the requirements of California Public Utilities Code (PUC) Section 8387 for publicly owned electric utilities to prepare a wildfire mitigation plan by January 1, 2020, and annually thereafter. The Plan will promote continuous improvement year to year and represent best efforts to implement industry best practices in a prudent and reasonable manner.

C. BACKGROUND

Given recent, catastrophic wildfires in California, the state passed Senate Bill (SB) 901 in September 2018, amending PUC Section 8387(b)(2). SB 901 requires utilities to prepare wildfire mitigation measures if the utility's overhead electrical lines and equipment are located in an area that has a significant risk of wildfire resulting from those electrical lines and equipment. The law requires the wildfire mitigation measures to incorporate specified information and procedures and requires the local publicly owned electric utility, before January 1, 2020, and annually thereafter, to prepare a wildfire mitigation plan.

A small portion of Lompoc Electric's Utility's overhead electrical lines and equipment is located in, and adjacent to, California Public Utilities Commission (CPUC) designated Tier 2 High Fire Threat District (HFTD). The area is considered an "Elevated" level of risk for wildfire threat. No service area is located in a Tier 3 area of "Extreme" level of risk. (HFTD designations are described in more detail in Section 4.)

Lompoc Electric has a much lower wildfire risk profile than other areas in the State that have suffered destructive wildfires in recent years. This is largely due to a small service area with a dense urban footprint, (approximately 12 square miles of land), flat terrain and less than 2% of infrastructure in a Tier 2 HFTD. Of Lompoc Electric's 15,000 customers, less than 1% are located in the HFTD.

A small service area offers tremendous visibility on Lompoc Electric's infrastructure. Problems within the service area are generally discovered quickly. The compact territory allows Lompoc Electric to reach nearly every asset within a 10-minute drive from its headquarters. The infrastructure in the HFTD is easily accessible by Lompoc Electric staff and Lompoc Fire Department.

Despite the lower risk, Lompoc Electric takes appropriate actions to help the City prevent and respond to the increasing risk of wildfires from its electric utility infrastructure. In its role as a division of a public agency, Lompoc Electric closely coordinates with other fire and safety agencies. Lompoc Electric is a division within the Utility Department of the City. For wildfire prevention and response, Lompoc Electric is subordinate to the City's Fire Department (LFD) and Police Department (LPD). Lompoc Electric's Wildfire mitigation efforts will operate in coordination with the City's Hazard Mitigation Plan and Comprehensive Emergency Management Plan.

The City includes wildfire prevention in its General Plan. Wildfire is considered a low risk in City planning due to the limited areas in HFTD. To help reduce the damage caused to development from wildfires, the City determines the suitability and design of development in the limited HFTD area. Uses which increase the danger of wildland fires are restricted.

D. ORGANIZATION OF THE WILDFIRE MITIGATION PLAN

This Wildfire Mitigation Plan includes the following elements:

- Section 1 – Overview;
- Section 2 – Objectives of the Plan;
- Section 3 – Roles and responsibilities for carrying out the Plan;
- Section 4 – Identification of key wildfire risks and risk drivers;
- Section 5 – Description of wildfire prevention, mitigation, and response strategies and programs;
- Section 6 – Community outreach and education;
- Section 7 – Restoration of service following a wildfire;

- Section 8 – Metrics for evaluating the performance of the Plan and identifying areas for improvement; and
- Section 9 – Independent audit of the Plan.

2. OBJECTIVES OF THE WILDFIRE MITIGATION PLAN

A. MINIMIZING SOURCES OF IGNITION

The primary goal of this Wildfire Mitigation Plan is to minimize the probability that Lompoc Electric's distribution system may be the origin or contributing source for the ignition of a fire as well as to protect the system from wildfire damage.

Lompoc Electric is in the process of evaluating prudent and cost-effective improvements to its physical assets, operations, and training to help meet this objective. Lompoc Electric will implement those changes consistent with the Plan as staffing and budget allows.

B. RESILIENCY OF THE ELECTRIC GRID

The secondary goal of the Plan is to improve the resiliency of the electric grid. As part of the development and ongoing implementation of this Plan, Lompoc Electric will assess new industry practices and technologies that will reduce the likelihood of an interruption (frequency) in service and improve the restoration (duration) of service.

Other resiliency efforts include mitigating fire fuels located in the wildland urban interface (WUI) and greenbelts likely to be a threat to facilities and equipment.

C. WILDFIRE PREVENTION STRATEGIES

The following strategies are part of the Plan and described in more detail in Section 5.

- **VEGETATION MANAGEMENT**
These strategies help to control vegetation near to Lompoc Electric's overhead distribution lines so they better adhere to clearance specifications. They also include fire fuels mitigation and other work in order to prevent the system from causing a fire and to protect the system from fire.
- **ENHANCED INSPECTIONS**
These strategies consist of assessment and diagnostic activities as well as associated corrective actions. The practices in this category aim to ensure all infrastructure is in working condition and vegetation adheres to defined minimum distance specifications.

- **SITUATIONAL AWARENESS**
These strategies consist of methods to improve system visualization and awareness of environmental conditions. The practices in this category aim to provide tools to improve the other components of the Plan.
- **OPERATIONAL PRACTICES**
These strategies consist of proactive, day-to-day actions taken to mitigate wildfire risks. The practices in this category aim to ensure Lompoc Electric is prepared in high-risk situations, such as dry, windy environmental conditions.
- **SYSTEM HARDENING**
These strategies consist of system, equipment, and structure design and technical upgrades. The practices in this category aim to improve system hardening to prevent contact between infrastructure and fuel sources, such as vegetation and animals. It also includes making the system more resilient to wildfire and other disasters.
- **PUBLIC SAFETY AND NOTIFICATION**
These strategies will focus on ways to engage the community as partners in preventing and identifying wildfire risk. They include improving outage notification and other items in the interest of public safety.
- **RECLOSING AND DE-ENERGIZATION**
These strategies include discussion of de-energization as well as automatic circuit reclosing.

D. IDENTIFYING UNNECESSARY OR INEFFECTIVE ACTIONS

The final goal for the Plan is to measure the effectiveness of specific wildfire mitigation strategies. Lompoc Electric will assess the merits of modifications. This Plan will also help determine if more cost-effective measures would produce the same or improved results.

3. ROLES AND RESPONSIBILITIES

A. CITY GOVERNANCE STRUCTURE

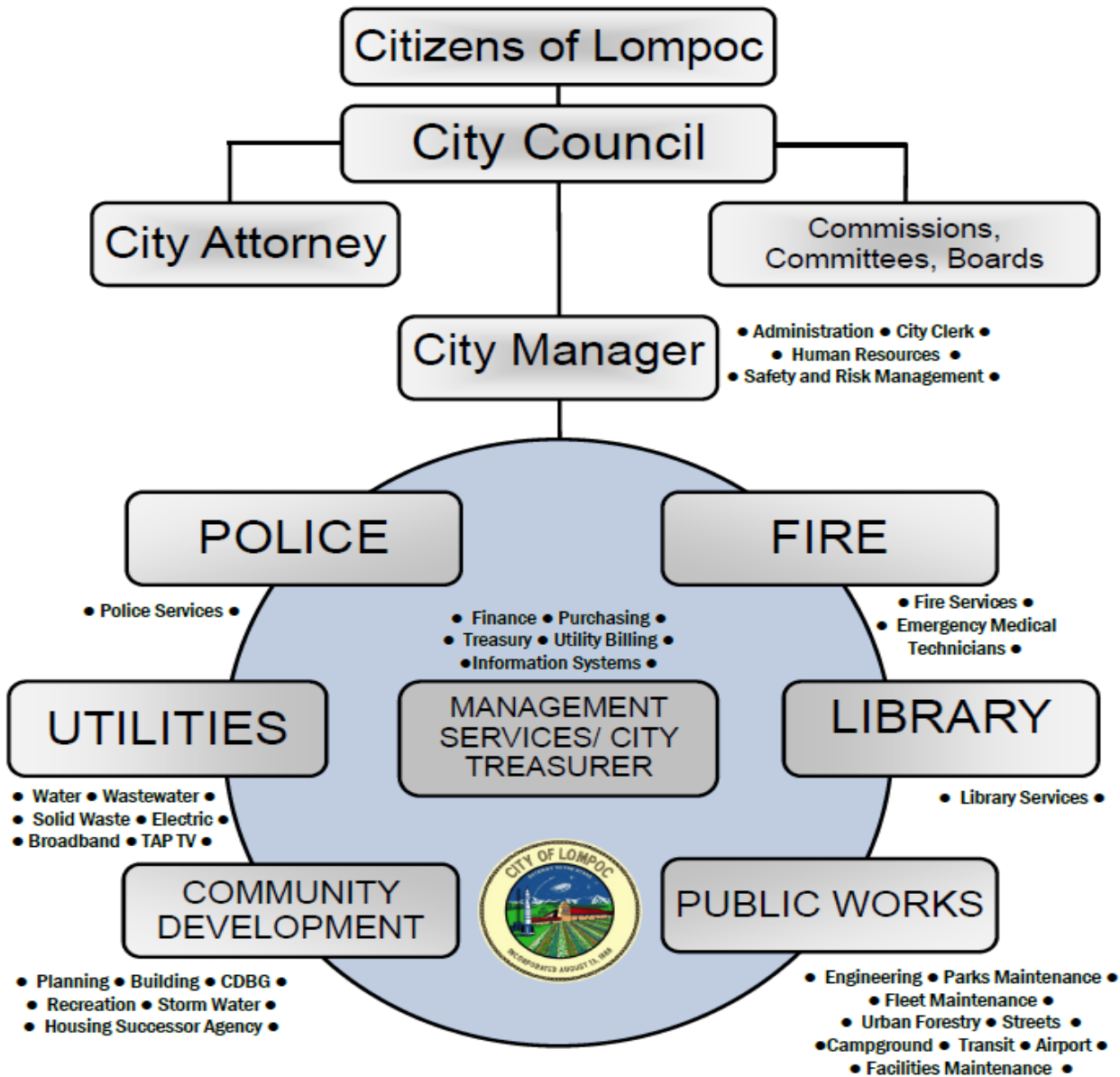
The City utilizes the Council-Manager form of local governance, which includes an elected Mayor and four Council Members, and an appointed City Manager. The Mayor is elected every two years and the four Council Members are elected every four years.

The City Council is Lompoc's legislative body, setting policy, approving budgets, and setting tax rates. Council Members also appoint the City Manager, who is responsible for the day-to-day administration of the City, and serves as the City Council's chief advisor.

The City Manager prepares a recommended budget, recruits and hires most of the City's staff, and carries out the City Council's policies. While the City Manager may recommend policy decisions, he is ultimately bound by the actions of the City Council. The City Council also appoint the City Attorney.

The City's organizational chart is listed below:

ORGANIZATIONAL CHART



B. ROLES AND RESPONSIBILITIES FOR PLAN EXECUTION

Executive Level Responsibility:

The Electric Utility Division Manager will oversee implementation of the Plan and ensure that staff follow procedures and protocols. The Electric Regulatory Compliance Coordinator will manage the execution of performance monitoring, including providing guidance to staff and leading the development of reports. The staff responsible for each metric area will aggregate relevant metrics at the direction of the Electric Utility Division Manager.

Plan Owners: The table below outlines the current assignments and are subject to change.

Plan	Owner
Wildfire Mitigation Plan	Electric Utility Division Manager
City Comprehensive Emergency Management Plan	City Fire Chief and City Manager
City Hazard Mitigation Plan	City Fire Chief

Strategy Leads: The table below outlines the proposed assignments and are subject to change.

Strategy	Lead Personnel	Key Technical Personnel
Vegetation Management	Electrical Supervisor	Urban Forestry Supervisor
Enhanced Inspections	Electric Utility Division Manager	Electrical Supervisor
Operational Practices	Electric Utility Division Manager	Electrical Supervisor and Electric Substation Staff
System Hardening	Electric Utility Division Manager	Electrical Supervisor and Electrical Estimator
Public Safety & Notification	Electric Utility Division Manager	Electric Regulatory Compliance Coordinator
Reclosing & De-energization	Electric Utility Division Manager	Electrical Supervisor and Electric Substation Staff

C. COORDINATION WITH JOINT POLE INFRASTRUCTURE PROVIDERS

For joint pole fire prevention, Lompoc Electric takes the lead role and informs the subordinate providers when it identifies any compromised poles due to third-party attachments. Lompoc Electric coordinates with communication and electric infrastructure providers throughout the year when work on the system affects their equipment. Lompoc Electric staff also identifies safety issues. If Lompoc Electric staff discovers a facility in need of repair owned by another entity, Lompoc Electric may issue a notice to repair to the facility owner and work to ensure that necessary repairs are promptly completed. During emergencies, Lompoc Electric assumes the primary role and informs providers when there is damage or risk to their equipment.

D. COORDINATION WITH CITY DEPARTMENTS

City's Fire Department, Police Department, Utility Department and Public Works Department are all departments within the same organization. This unified structure results in frequent contact and communication between the departments on many fronts and topics, and creates a beneficial familiarity in working together.

City Fire Department

The Lompoc Fire Department (LFD) is the City's lead for wildfire and emergency operations and directs Lompoc Electric regarding public safety priorities.

City Police Department

Lompoc Electric coordinates with the Lompoc Police Department (LPD) and is subordinate for emergency and public safety issues. Lompoc Electric will work closely with the LPD for situational awareness and other public safety issues related to the Plan.

City Utility Department and Public Works Department

During wildfires and other public safety events, Lompoc Electric works with the Utility Department and the Public Works Department to ensure power is provided to water-pumping stations, wastewater plants, and other critical infrastructure. These facilities are not only critical for defending the City from wildfire, but are essential for safe repopulation following any disaster.

Other City Departments and Divisions

Lompoc Electric will work to ensure information regarding warnings, alerts, and widespread outages are shared with other City departments and divisions. The Administration Department is an integral part of getting information out to the media and public and will coordinate with the City's Emergency Operations Center (EOC) if activated.

E. WILDFIRE RESPONSE & RECOVERY

Lompoc Electric is a division within the Utility Department of the City. For wildfire response and recovery, Lompoc Electric is subordinate to the City Fire Department and City Police Department. Lompoc Electric's Wildfire mitigation efforts will operate in coordination with the City Hazard Mitigation Plan and the City Comprehensive Emergency Management Plan.

When the City has a wildfire, Lompoc Electric, or the incident commander, will request needed resources through Lompoc Dispatch. Because Lompoc Electric's service area falls within the City boundaries, LFD can respond to the HFTD areas within six minutes, limiting the potential damage from a wildfire.

Annually, the LFD meets with surrounding agencies and discusses Automatic/Mutual Aid resources that are needed. The LFD has an agreement with Santa Barbara County and Vandenberg Fire Departments which allows LFD to access the needed resources. If the incident is beyond the limits of LFD resources then LFD will reach out to Cal OES for additional resources.

The City is a member of the California Utility Emergency Association, which plays a key role in ensuring communications between utilities during emergencies, including mutual aid.

Wildfire recovery and re-energization will be coordinated with LFD and City EOC if activated. LFD will coordinate with federal, state and local fire management personnel as necessary or appropriate. During the activation of the City EOC during a wildfire, Lompoc Electric standby staff will be on call for necessary shift changes during fire events.

F. STANDARDIZED EMERGENCY MANAGEMENT SYSTEM

As a local governmental agency,¹ the City has planning, communication, and coordination obligations pursuant to the California Office of Emergency Services' Standardized Emergency Management System (SEMS) Regulations,² adopted in accordance with Government Code section 8607. The SEMS Regulations specify roles, responsibilities, and structures of communications at five different levels: field response, local government, operational area, regional, and state.³ The LFD maintains a Comprehensive Emergency Management Plan that includes participation from Lompoc Electric when needed. The City works closely with Santa Barbara County to coordinate emergency operations, including the Santa Barbara County Sheriff's Office of Emergency Services (OES).

¹ As defined in Cal. Gov. Code § 8680.2.

² 19 CCR § 2407.

³ Cal. Gov. Code § 2403(b).

The OES coordinates with Federal, State, and local agencies to prepare, respond, and recover from emergencies and natural disasters.

- OES is responsible for maintaining and updating the County Emergency Operation Plan (EOP), which is an all hazards plan for Santa Barbara County.
- OES also coordinates and maintains the Santa Barbara County Emergency Operation Center (EOC). The EOC can be used during a major incident to carry out the principles of emergency preparedness and emergency management between multiple agencies.
- The OES provides technical advice to the Sheriff on local emergency declarations and has a direct link to the California Governor's Office of Emergency Services (CAL OES) during disasters or any other critical incident. In the event of a major incident OES can work with CAL OES to obtain a Presidential proclamation.
- OES works closely with other local agencies assisting them in preparing emergency plans and in disaster training. OES works as a point of contact for local agencies to the California Governor's Office of Emergency Services.

Pursuant to that structure, LFD coordinates and communicates with the relevant local, State and Federal agencies. Pursuant to the City's Comprehensive Emergency Management Plan, a Lompoc Electric liaison will participate in annual City EOC training, which encompasses disaster preparedness, including wildfire safety.

The LFD completes RT-130 annually, which is a wildland refresher on weather, topography, fuels, suppression and communications.

The City is a member of the California Utility Emergency Association, which plays a key role in ensuring communications between utilities during emergencies.

Under the SEMS structure, a significant amount of preparation is done through advanced planning at the county level, including the coordination of effort of public, private, and nonprofit organizations. Santa Barbara County serves as the Operational Area and is guided by the Santa Barbara County Disaster Council. The Operational Area includes local and regional organizations that bring relevant expertise to the wildfire prevention and recovery planning process. Those participants include local fire agencies, Red Cross, Santa Barbara County Office of Emergency Management and Community Emergency Response Team (CERT).

Pursuant to the SEMS structure, the LFD participates in Santa Barbara County EOC annual training exercises.

4. WILDFIRE RISK AND RISK DRIVERS

A. ENTERPRISEWIDE SAFETY AND WILDFIRE RISK METHODOLOGY

Lompoc Electric has determined that the level of risk for wildfires from its overhead lines and equipment is limited. In order to ascertain the level of risk to its system from risk drivers, the following were reviewed:

1. CPUC High Fire-Threat Map to determine areas of high fire risk;

A statewide fire threat map was adopted by the CPUC to delineate the boundaries to identify, evaluate and potentially adopt stricter fire-safety regulations that apply to overhead power lines located within those boundaries. An overlay of this map of Lompoc Electric's service territory and overhead transmission lines coming into the City was created to identify wildfire safety risks. Less than 2% of Lompoc Electric's service territory is in the CPUC Fire Threat Map Tier 2 HFTD (see Maps 1, 2 and 3 on pages 15-17). Of Lompoc Electric's 15,000 customers, less than 1% are in the HFTD. No critical facilities are located in this area.

2. Size and footprint of the City;

The City is a well-developed area with a dense urban footprint. Additionally, a small service area (12 square miles) offers tremendous visibility on Lompoc Electric's infrastructure. Problems within the service area are generally discovered quickly. The compact territory allows Lompoc Electric to reach nearly every asset within a 10-minute drive from its headquarters. LFD can respond to a fire in the HFTD within 6 minutes. HFTD areas are easily accessed.

3. Wildfires caused from electric equipment; and

Lompoc Electric has no known history of causing any wildfires from its electrical lines and equipment.

4. A review of outages caused by animals, birds, vegetation, and overhead equipment failures as way to assess wildfire risk.

Outages in the HFTD areas have been limited. Over the past four years, Lompoc Electric has only had two outages. One outage occurred from a tree branch falling on a service line and the other was due to balloons in a service line. System hardening will help minimize outages from these exposures.

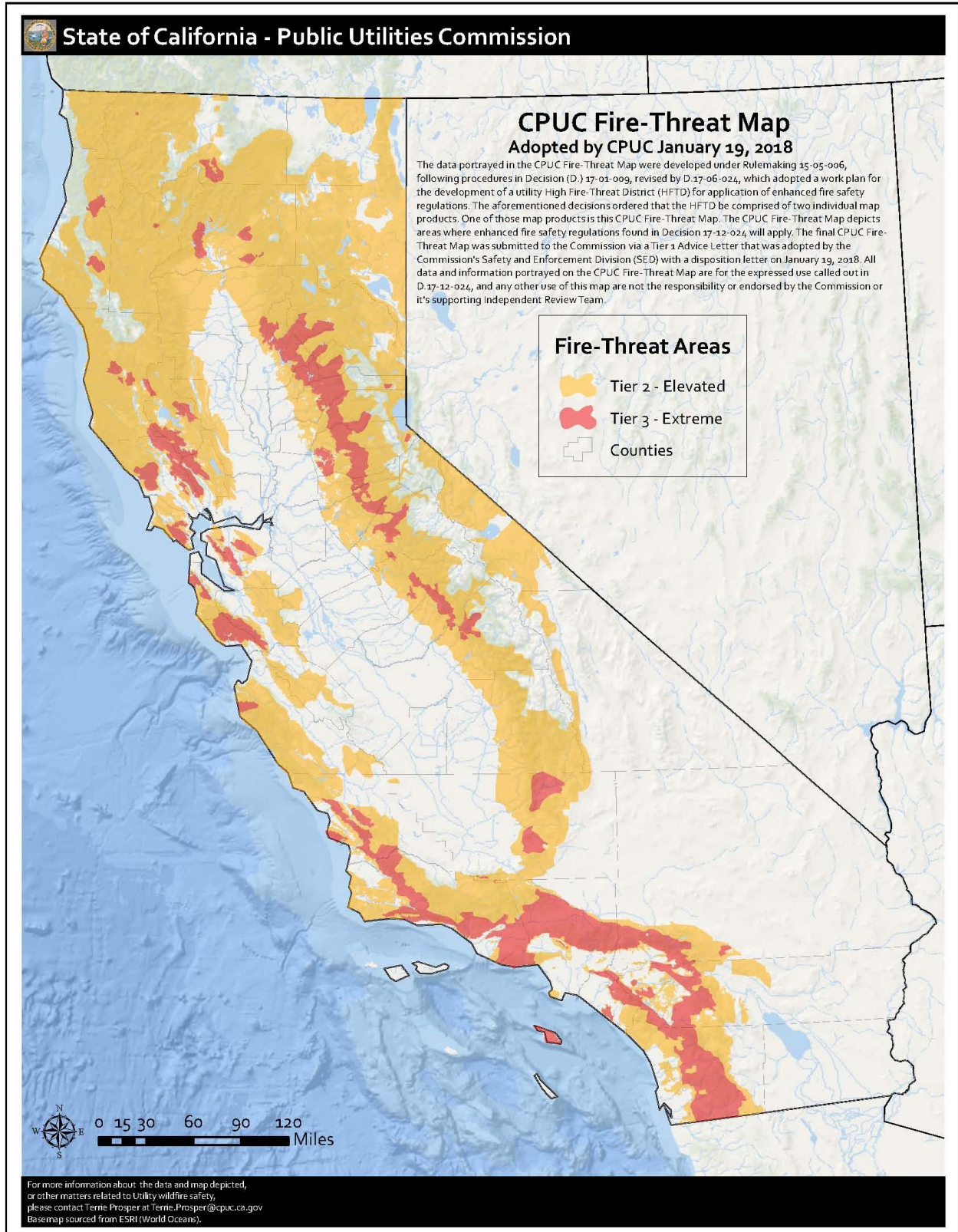
The description of CPUC fire threat zones are shown in Table 1.

TABLE – 1

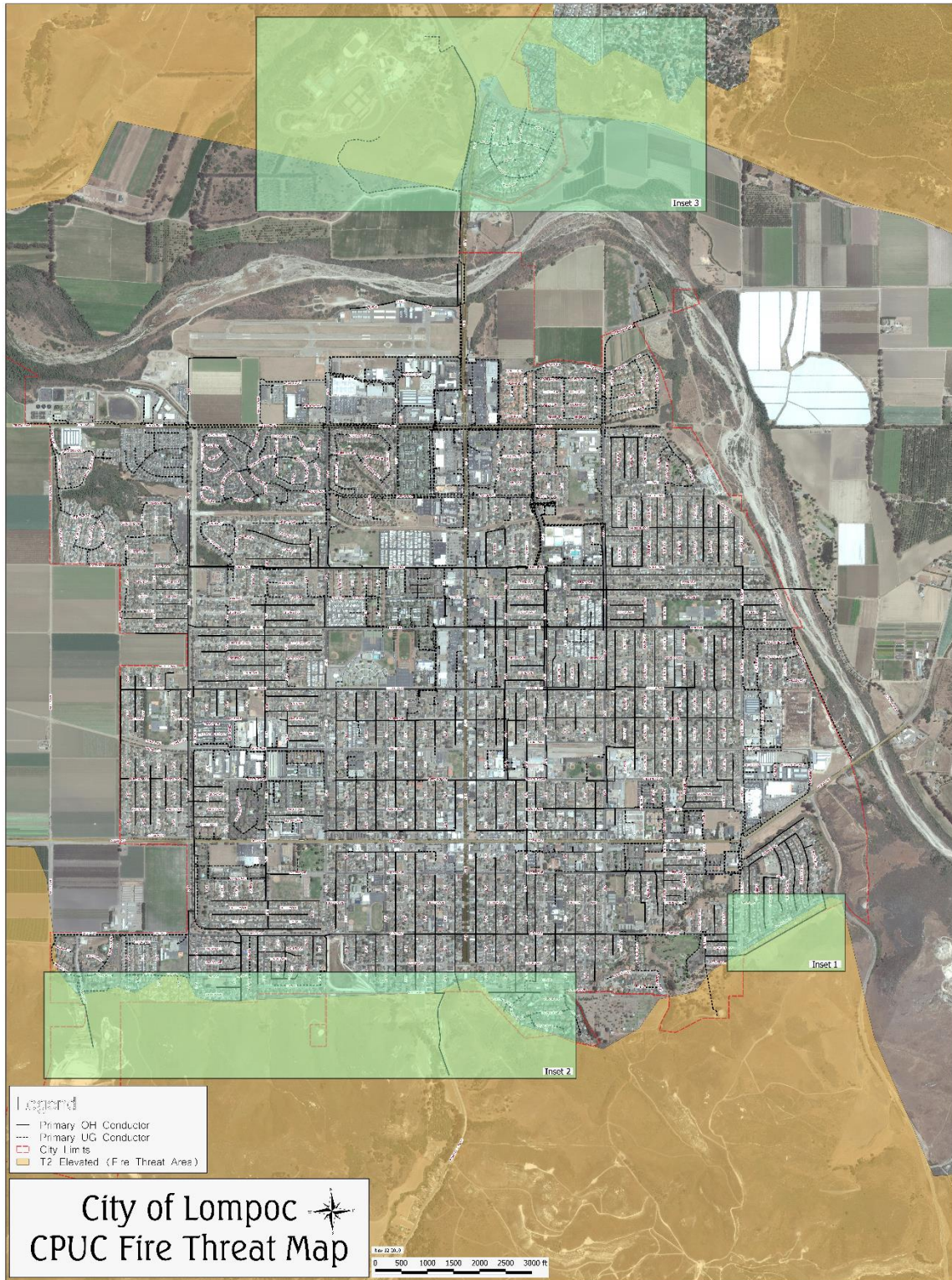
Description of Tiered Fire Threat Zones

Zone	Category	Description
Tier 3	Extreme	Wildland areas where exposure to overhead power lines, the availability of water resources, and emergency responder circulation routes affect response times to combat wildland fires.
Tier 2	Elevated	Elevated risk due to vegetation, high voltage regional transmission lines crossing the area, and adjacent to Tier 3 fire threat zones.
Tier 1	Low	Well developed areas, typically with underground high voltage circuitry.

MAP 1



MAP 2



MAP 3



B. GEOGRAPHICAL & CLIMATE RISK

Within Lompoc Electric’s service territory and surrounding areas, the primary risk drivers for wildfire are the following:

- Terrain of surrounding areas;
- Vegetation type and density in the wildland-urban interface (WUI) area;
- Changing weather patterns including high wind, high heat and low humidity; and
- Extended drought.

The City ranked the wildfire hazard as being a limited planning concern for the City. The City’s terrain is mostly flat and comprised largely of urbanized areas. City officials continually ensure that future development is sited, designed, and constructed in a manner that will reduce future damages associated with wildfire hazards.

Lompoc does not typically experience Red Flag Warning events. Lompoc is 98 feet above mean sea level and has a mild climate. The average temperature during the fire season is 72 degrees. A northwest breeze is common with an average hourly wind speed of 6 mph. Daily fog is common and no snow occurs. There is moderate rainfall beginning in October and ending in March with an average of 14 inches per year.

Table 1.

Average Temperatures & Rainfall

Period	Minimum Fahrenheit	Average Fahrenheit	Maximum Fahrenheit	Average Rainfall
January	39.5	52	64.2	2.90
April	44.2	55	66.4	.03
July	52.2	61	70.9	.01
October	47.8	61	73.8	.39
Yearly	46.0	57	68.7	13.88

Lompoc is located on California’s Central Coast. Rolling hills surround Lompoc Valley on the north, south and east. The Valley is open at its western end to the Pacific Ocean on the undeveloped Gaviota Coast. The Pacific Ocean is 8 miles from downtown Lompoc. The Santa Ynez River runs east to west through the Valley while Burton Mesa, a chaparral forest with sandy soil, lies to the north. The hills to the south are mined for diatomaceous

(fossil) earth. The City is surrounded to the North and South by wildland-urban interface areas (WUI) in the CPUC Tier 2 HFTD. Agricultural areas surround Lompoc to the East and West.

Vegetation and topography were the significant elements in the identification of the fire threat zones in surrounding areas of Lompoc. A substantial amount of the vegetation in Lompoc WUI is commonly called chaparral; it is a dense and scrubby bush that has evolved to persist in a fire-prone habitat. Chaparral plants will eventually age and die; however, they will not be replaced by new growth until a fire rejuvenates the area. Chamise, Manzanita and Ceanothus are all examples of chaparral which are quite common in Lompoc's surrounding areas.

Generally, many of the areas at risk within Lompoc's surrounding area fall into the classic WUI category. The mixed WUI is characterized by isolated homes, subdivisions, and small communities situated predominantly in wildland settings. The occluded wildland-urban interface exists where islands of wildland vegetation occur inside a largely urbanized area.

C. CPUC HIGH FIRE THREAT DISTRICTS

Lompoc Electric did not directly participate in the development of the CPUC Fire-Threat Map, which designates a HFTD, but will incorporate the HFTD into its construction, inspection, maintenance, repair, and clearance practices, where applicable.

Lompoc Electric, in coordination with LFD, will review the CPUC Fire-Threat Map annually to identify needed adjustments to hazard threat levels due to changes in urban development and/or vegetation conditions. When adjustments are identified, Lompoc Electric will collaborate with the LFD to update the CPUC Fire-Threat Map data and Fire-Threat Map accordingly.

Currently, the City does not propose any changes to the borders of the HFTD boundaries as indicated in CPUC's Fire-Threat map (adopted by the CPUC January 19, 2018).

5. WILDFIRE PREVENTION STRATEGY

A. STRATEGY – VEGETATION MANAGEMENT

Lompoc Electric will continue to incorporate the industry standard vegetation management practices such as Public Resources Code section 4292 and GO 95 Rule 35 (See TABLE 1). The recommended time-of-trim guidelines do not establish a mandatory standard, but instead provide useful guidance to utilities. Lompoc Electric will use specific knowledge of growing conditions and tree species to determine the appropriate time of trim clearance in each circumstance. Lompoc Electric performs this work with the assistance of the City's Urban Forestry Division.

**TABLE 1
GO 95, RULE 35, Section III (Minimum Clearances)**

Case	Type of Clearance	Trolley Contact, Feeder and Span Wires, 0-5kv	Supply Conductors and Supply Cables, 750 - 22,500 Volts	Supply Conductors and Supply Cables, 22.5 - 300 kV
13	Radial clearance of bare line conductors from tree branches or foliage.	18 inches	18 inches	¼ Pin Spacing
14	Radial clearance of bare line conductors from vegetation in the HFTD.	18 inches	48 inches	48 inches

Described below are enhancements to traditional vegetation management strategy.

- No vertical coverage allowed above Lompoc Electric distribution lines;
- Provide vegetation control in a 30-foot perimeter around substations;
- For public land and greenbelts, provide easement clear from ground to sky adjacent to Lompoc Electric facilities;
- Work with adjacent customers to get approval for wider clearance on their land. This could include removing tall, diseased, leaning trees that appear to be at risk of falling into power lines.
- Perform additional vegetation removal for fuels reduction in easements on an annual rotation to ensure CPUC recommended clearances are maintained based on the fire hazard zone where each distribution line is located.

B. STRATEGY – ENHANCED INSPECTIONS

Inspection plays an important role in wildfire prevention. Lompoc Electric currently patrols its system regularly and plans to increase inspections. Lompoc Electric’s current inspection activities include annual visual inspections, intrusive inspection of wood poles and GIS data collection. The City will explore the purchase of a resistograph pole testing drill to inspect poles in the HFTD annually.

The frequency of inspections will be increased in the high fire threat areas and when storms or other disasters have significantly impacted the system.

Lompoc Electric will incorporate industry standard inspection guidelines such as CPUC GO 165 and CPUC GO 95, Rule 18 inspection guidelines. Pursuant to those standards, Lompoc Electric inspects electric facilities in the HFTD more frequently than the other areas of its service territory.

Additionally, City staff uses their knowledge of the specific environmental and geographical conditions to determine when areas outside of the HFTD require more frequent inspections.

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

Lompoc Electric works to ensure that all inspections to be performed within the HFTD are completed before the beginning of the historic fire season, (typically September 1). The City monitors drought conditions and other relevant factors throughout the year to determine if inspections should be completed on a shorter timeframe.

C. STRATEGY – SITUATIONAL AWARENESS

Presently Lompoc Electric has an outage management system that has the ability to track customers affected by circuit outages.

Other efforts will include the following technology in collaboration with LFD and LPD:

- Common communication system for Lompoc Electric is with the LFD and LPD for wildfire and disaster response and recovery;
- Provide human resources for implementation, operation, and maintenance of technologies; and
- Customer reporting tools for safety issues.

Other enhancements to public notification during high fire threat, actual fire, or other disaster events will be explored.

D. STRATEGY – WEATHER MONITORING

Lompoc Electric monitors current and forecasted weather data from information provided by LFD.

E. STRATEGY – OPERATIONAL PRACTICES

Lompoc Electric will operate the system in a manner that will minimize potential wildfire risks including taking all reasonable and practicable actions to minimize the risk of a catastrophic wildfire caused by Lompoc Electric facilities. Lompoc Electric will take corrective action for deficiencies when staff witnesses, or is notified of, improperly installed or maintained fire protection measures. In addition to those general principles,

several new operational practices will help reduce the risk of wildfire and improve the response time in the event of a fire including:

- All City personnel will be required to contact LFD and LPD reporting anything hazardous;
- Staff will collect and maintain wildfire data necessary for the implementation and evaluation of the Plan;
- During high wildfire, threat periods (red flag warnings) staff will perform only essential work;
- A protocol will be developed that could include having Electric staff at the substation during high wildfire threat periods and for patrol of areas where the fire danger is higher;
- During the activation of the City EOC during a wildfire, Lompoc Electric standby staff will be on call; and
- Lompoc Electric will participate in annual City EOC system drills and training.

F. STRATEGY – SYSTEM HARDENING (DESIGN & CONSTRUCTION)

Lompoc Electric facilities are designed, constructed, and maintained to meet or exceed the relevant Federal, State, or industry standard. Lompoc Electric treats CPUC General Order (GO) 95 as a key industry standard for design and construction standards for overhead electrical facilities. Additionally, Lompoc Electric monitors and follows, as appropriate, the National Electric Safety Code.

In addition to standards, Lompoc Electric will do the following system hardening in the HFTD:

- Replacement of all high voltage mechanical electrical connections with compression connections to minimize the possibility of high resistance/arcing due to loosening of connection over lifespan;
- Installation of non-expulsion type current limiting fuses to minimize the risk of wildfire due to hot fuse material expelled onto vegetation;
- Upgrade existing primary insulators to material with higher dielectric rating (over insulating);
- Visually inspect and tighten all hardware and replace existing hardware bonding components where needed;
- Install insulated wildlife protective guards on all exposed high voltage wires and apparatus on utility poles; and
- Increase inspection cycle for infrastructure located within high fire risk area.

Lompoc Electric will explore some or all of the following:

- Provide additional access roads along power line easements and maintain to appropriate standards;

- Engineering – Revise construction standards to implement arc suppression components, raptor framing, squirrel guards, tree wire, lightening arresters, and arc suppression fusing;
- Convert overhead lines to underground as feasible and economic;
- Alternative Technologies – Lompoc Electric will consider the feasibility of implementing alternative technologies, such as wire-break sensing and arc detection technology, as they become available and cost-effective; and
- As distribution poles reach end of useful life for HFTD areas, replace with steel poles in kind and maintain a stockpile of modular steel poles to replace poles in the event of emergency replacement.

G. STRATEGY – PUBLIC SAFETY AND NOTIFICATION

The following provides how Lompoc Electric communicates with the community during high fire threat periods and disasters.

- Will coordinate with LFD and LPD;
- Will coordinate with the City EOC if activated; and
- Will coordinate with the City Administration Department to formulate and release information about emergencies to the news media and the general public through the City’s available media outlets such as website, social media, radio and television stations to push messages out about outages and emergencies.

H. STRATEGY – RECLOSING AND DE-ENERGIZATION

For this first iteration of the Wildfire Mitigation Plan, Lompoc Electric intends to make changes to its protection system in the HFTD during fire season so that circuits that are faulted do not attempt to reclose.

Lompoc Electric has the authority to preemptively shut off power due to fire threat condition; however, this option will only be used in extraordinary circumstances. Due to minimal risk of Lompoc Electric’s infrastructure causing a power-line ignited wildfire, Lompoc Electric is not adopting specific protocols for de-energizing any portions of its electric distribution system. Lompoc Electric has the capability to open cut-outs or use switches to isolate areas that are in the HFTD to limit power outage to specific areas if necessary. Lompoc Electric is subordinate to LFD in the case of wildfire and emergency response and will turn off power when directed to by LFD.

Turning off power to the areas in the HFTD will have limited impact to the community or public safety. Of Lompoc Electric’s 15,000 customers, less than 2% are impacted. Depending on the location of the wildfire, sections of the HFTD area can be isolated. A power outage in the HFTD area will not impact electric service to other customers. Water, wastewater, and trash collection services will continue to be provided. As weather conditions improve, and with the direction of LFD, inspection of infrastructure and repair to damage, re-energization will be initiated and considered a priority.

In the event power will need to be turned off, Lompoc Electric will coordinate with LFD, the City Administration Department, and the City EOC, if activated to provide notification to customers impacted prior to a power shut off. Weather and other extenuating circumstances may not always allow advance notification. Notification will be made through updates to the City's available media outlets such as website, social media, radio and television stations.

The following entities will be notified by telephone because they are located in the HFTD or provide support to those customers:

- Santa Barbara County OES to ensure text alerts are sent to customers signed up with Aware and Prepare;
- Critical infrastructure: City jail, City Police and Fire Department facilities, other key City Utility facilities (e.g., water, wastewater, solid waste, city-wide communications, City EOC, etc.);
- Hospitals, and Medical Discount Program customers; and
- City college campus.

6. COMMUNITY OUTREACH AND EDUCATION

The City will maintain a proactive outreach and education strategy to create public awareness of fire threats, fire prevention, and available support during a wildfire or large power outages. Prior to an emergency, communication will include regular messages related to wildfire prevention, such as right-of-way management, tree trimming, line inspection, or other relevant topics. Methods of communication will include website updates, social media posts, and public service announcements on City television and radio stations.

Ongoing Public Outreach

The City utilizes several platforms to educate the public about hazards in the community, relevant programs to safeguard and protect themselves from disaster, and actions they can take to prepare themselves for events. Below is a list of the different platforms used and a brief summary of some of the programs:

- Santa Barbara County Aware and Prepare;
- Social media messaging;
- Public service announcements on City television and radio stations;
- Public demonstrations;
- Fire Department open house;
- Public Safety Night during City Old Town Market; and
- Weed Abatement Program.

During an emergency, the City EOC will be utilized to manage both internal and external communication throughout the incident from that initial notification to termination of the

incident. Use of established notification and communication plans will allow Lompoc Electric to coordinate with applicable emergency service personnel (LPD, LFD, Santa Barbara County OES, etc.) along with maintaining open lines of communication with customers, media and City staff.

7. RESTORATION OF SERVICE

In the event of a wildfire or other emergency event, Lompoc Electric will staff up to coordinate activities to restore service. Lompoc Electric will restore power, following an event, in cooperation with LFD, LPD, and City Public Works Department and in coordination with Santa Barbara County, or other named Incident Commander.

Lompoc Electric management will oversee restoration and response activities. In the event that additional staff is needed, Lompoc Electric may leverage mutual aid agencies, other City staff, and local aid organizations.

The following describes the steps typically taken to begin the restoration process:

- **Assessment.** Lompoc Electric crews must patrol each line segment to determine the extent of damage that has occurred. The patrol involves assessing equipment access issues, any cleanup/debris removal issues and determining personal protective equipment requirements for the crews. Lompoc Electric will work with LFD and LPD to access impacted areas as soon as the area is deemed safe.
- **Planning.** After initial assessment, Lompoc Electric staff will meet to plan the needed work. The team will work to prioritize the restoration efforts, targeting the circuits that serve the most critical infrastructure needs.
- **Mobilize.** Based on the size and complexity of the rebuild/restoration efforts, Lompoc Electric will coordinate the crews and material needs internally if possible. Mutual aid may be used on an “as needed” basis to provide additional support.
- **Rebuild.** The rebuild effort lead by Lompoc Electric will commence as soon as areas become safe and accessible. The initial efforts will be to get the lines up and restore the damaged circuits.
- **Restore.** Lompoc Electric and or mutual aid will restore electric services to homes and businesses as soon as possible after the wildfire. Depending on the extent of damages, residential and business customers may have to perform repairs on their facilities and pass inspections by the City Building Division prior to having full electric service restored.

In most cases, the following restoration priorities will be followed depending on the specific incident and available resources:

- Public safety in the affected areas;

- Worker safety in performing the restoration work;
- Medical Discount customers;
- Critical infrastructure: City jail, LPD and LFD facilities, other key City Utility facilities (e.g., water, wastewater, solid waste, City-wide communications, City EOC, etc.);
- Major commercial accounts critical to continuity of community services – Hospitals, medical facilities, large grocery stores, home supply stores, and lodging facilities);
- To reduce the total number of customers affected; and
- To reduce the length of time customers have been without power.

In directing restoration efforts to best achieve the above priorities, Lompoc Electric personnel will generally find it most efficient to dedicate restoration resources to the following types of facilities in the following order of priority to optimally restore electric services:

- City facilities;
- Substations;
- Distribution circuits (12 kV);
- Distribution feeders;
- Distribution transformers; and
- Service lines.

8. EVALUATION OF THE PLAN

A. METRICS FOR MEASURING PLAN PERFORMANCE

Lompoc Electric will track two metrics to measure the performance of the Plan: (1) number of fire ignitions; and (2) wires down.

Metric 1: Fire Ignitions

For purposes of this metric, a fire ignition is defined as follows:

- Lompoc Electric facility associated with the fire;
- The fire was self-propagating and of a material other than electrical and/or communication facilities;
- The resulting fire traveled greater than one linear meter from the ignition point; and
- Lompoc Electric has knowledge that the fire occurred.

In future Wildfire Mitigation Plans, Lompoc Electric will provide the number of fires that occurred that were less than 1 acre in size. Any fires greater than 1 acre will be individually described.

Metric 2: Wires Down

The second metric is the number of distribution wires downed within Lompoc Electric's service territory. For purposes of this metric, a wires down event includes any instance where an electric primary distribution conductor falls to the ground or onto a foreign object. Lompoc Electric will divide the wires down metric between wires down inside and outside of the HFTD. Lompoc Electric will not normalize this metric by excluding unusual events, such as severe storms. Instead, Lompoc Electric will supplement this metric with a qualitative description of any such unusual events.

No fire ignitions or wire down events occurred in 2020.

B. IMPACT OF METRICS ON PLAN

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

C. MONITORING AND AUDITING THE PLAN

Review of the Plan will occur annually and any lessons learned will have the highest priority for improving steps in the Plan and the process for implementation. Lompoc Electric will present the Plan to the City of Lompoc City Council on an annual basis.

D. IDENTIFYING AND CORRECTING DEFICIENCIES IN THE PLAN

The Plan will be internally audited for completeness and effectiveness annually in preparation for presentation to the City of Lompoc City Council. Findings from the above audits will be recorded by Lompoc Electric's Utility Division Manager and appropriate corrections to the Plan and supporting procedures and processes will be made.

E. MONITORING THE EFFECTIVENESS OF INSPECTIONS

Lompoc Electric will utilize the metrics identified in Section 8(A) to monitor and audit the effectiveness of electrical line and equipment inspections. Lompoc Electric will replace or repair the equipment as necessary.

9. INDEPENDENT EVALUATOR

PUC Section 8387(c) requires Lompoc Electric to contract with a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of the Plan. The independent evaluator must issue a report that is posted on the City of Lompoc's website. This report must also be presented to the City of Lompoc City Council at a public meeting.

Lompoc Electric contracted with Guidehouse in 2020 to conduct an independent evaluation of its Plan. Guidehouse performed the evaluation and presented their report to the City of Lompoc City Council on July 21, 2020 and concluded that:

1. Lompoc Electric's Plan aligns appropriately with PUC Section 8387 and includes all required elements.
2. Lompoc Electric's Plan is determined to be comprehensive.

Lompoc Electric has posted its most recent Independent Evaluator Report (2020) on its website. The report can be found at the link below.

<https://www.cityoflompoc.com/government/departments/utilities/electric>