Appendix A. Definitions

Unless otherwise expressly stated, the following words and terms, for the purpose of these Guidelines, have the meanings shown in this chapter.

A.1 Terms Defined in Other Codes

Where terms are not defined in these Guidelines and are defined in the Government Code, Public Utilities Code, or California Public Resources Code, such terms have the meanings ascribed to them in those codes.

A.2 Terms Not Defined

Where terms are not defined through the methods authorized by this section, such terms have ordinarily accepted meanings such as the context implies.

A.3 Definition of Terms

Term	Definition
Access and functional needs population (AFN)	Individuals, including, but not limited to, those who have developmental or intellectual disabilities, physical disabilities, chronic conditions, or injuries; who have limited English proficiency or are non-English speaking; who are older adults, children, or people living in institutionalized settings; or who are low income, homeless, or transportation disadvantaged, including, but not limited to, those who are dependent on public transit or pregnant. (California Government Code 8593.3(f)(1) and
Asset (utility)	Electric lines, equipment, or supporting hardware.
At-risk species	See “high-risk species.”
Benchmarking	A comparison between one electrical corporation’s protocols, technologies used, or mitigations implemented, and other electrical corporations’ similar endeavors.
Calibration	Adjustment of a set of code input parameters to maximize the resulting agreement of the code calculations with observations in a specific scenario.[1]
Catastrophic wildfire	A fire that caused at least one death, damaged over 500 structures, or burned over 5,000 acres.
Circuit miles	The total length in miles of separate transmission and/or distribution circuits, regardless of the number of conductors used per circuit (i.e., different phrases).

[1] Adapted from T. G. Trucano, L. P. Swiler, T. Igusa, W. L. Oberkampf, and M. Pilch, 2006, “Calibration, validation, and sensitivity analysis: What’s what,” , vol. 91, no. 10–11, pp. 1331– 1357.

Consequence	The adverse effects from an event, considering the hazard intensity, community exposure, and local vulnerability.
Contact by object ignition likelihood	The likelihood that a non-vegetative object (such as a balloon or vehicle) will contact utility-owned equipment and result in an ignition.
Contact by vegetation ignition likelihood	The likelihood that vegetation will contact utility-owned equipment and result in an ignition.
Contractor	Any individual in the temporary and/or indirect employ of the electrical corporation whose limited hours and/or time-bound term of employment are not considered "full-time" for tax and/or any other purposes.
Critical facilities and infrastructure	Facilities and infrastructure that are essential to public safety and that require additional assistance and advance planning to ensure resiliency during PSPS events. These include the following: Emergency services sector: • Police stations • Fire stations • Emergency operations centers • Public safety answering points (e.g., 9-1-1 emergency services) Government facilities sector: • Schools • Jails and prisons Health care and public health sector: • Public health departments • Medical facilities, including hospitals, skilled nursing facilities, nursing homes, blood banks, health care facilities, dialysis centers, and hospice facilities (excluding doctors' offices and other non-essential medical facilities) Energy sector: • Public and private utility facilities vital to maintaining or restoring normal service, including, but not limited to, interconnected publicly owned electrical corporations and electric cooperatives Water and wastewater systems sector: • Facilities associated with provision of drinking water or processing of wastewater, including facilities that pump, divert, transport, store, treat, and deliver water or wastewater Communications sector: • Communication carrier infrastructure, including selective routers, central offices, head ends, cellular switches, remote terminals, and cellular sites Chemical sector: • Facilities associated with manufacturing, maintaining, or distributing hazardous materials and chemicals (including Category N-Customers as defined in D.01-06-085) Transportation sector:

	• Facilities associated with transportation for civilian and military purposes: automotive, rail, aviation, maritime, or major public transportation (D.19-05-042 and D.20-05-051)
Customer hours	Total number of customers, multiplied by average number of hours (e.g., power outage).
Danger tree	Any tree located on or adjacent to a utility right-of-way or facility that could damage utility facilities should it fall where (1) the tree leans toward the right-of-way, or (2) the tree is defective because of any cause, such as: heart or root rot, shallow roots, excavation, bad crotch, dead or with dead top, deformity, cracks or splits, or any other reason that could result in the tree or main lateral of the tree falling. (California Code of Regulation Title 14 § 895.1)
Data cleaning	Calibration of raw data to remove errors (including typographical and numerical mistakes).
Dead fuel moisture content	Moisture content of dead vegetation, which responds solely to current environmental conditions and is critical in determining fire potential.
Detailed inspection	In accordance with General Order (GO) 165, an inspection where individual pieces of equipment and structures are carefully examined, visually and through routine diagnostic testing, as appropriate, and (if practical and if useful information can be so gathered) opened, and the condition of each is rated and recorded.
Disaster	A serious disruption to the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability, and capacity, leading to one or more of the following: human, material, economic, and environmental losses and impacts. The effect of the disaster can be immediate and localized but is often widespread and could last a long time. The effect may test or exceed the capacity of a community or society to cope using its own resources. Therefore, it may require assistance from external sources, which could include neighboring jurisdictions or those at the national or international levels. (United Nations Office for Disaster Risk Reduction [UNDRR].)
Discussion-based exercise	Exercise used to familiarize participants with current plans, policies, agreements, and procedures or to develop new plans, policies, agreements, and procedures. Often includes seminars, workshops, tabletop exercises, and games.
Electrical corporation	Every corporation or person owning, controlling, operating, or managing any electric plant for compensation within California, except where the producer generates electricity on or distributes it through private property solely for its own use or the use of its tenants and not for sale or transmission to others.
Emergency	Any incident, whether natural, technological, or human caused, that requires responsive action to protect life or property but does not result

	in serious disruption of the functioning of a community or society. (FEMA/UNDRR.)
Enhanced inspection	Inspection whose frequency and thoroughness exceed the requirements of a detailed inspection, particularly if driven by risk calculations.
Equipment ignition likelihood	The likelihood that utility-owned equipment will cause an ignition through either normal operation (such as arching) or failure.
Exercise	An instrument to train for, assess, practice, and improve performance in prevention, protection, response, and recovery capabilities in a risk-free environment. (FEMA.)
Exposure	The presence of people, infrastructure, livelihoods, environmental services and resources, and other high-value assets in places that could be adversely affected by a hazard.
Fire ecology	A scientific discipline concerned with natural processes involving fire in an ecosystem and its ecological effects, the interactions between fire and the abiotic and biotic components of an ecosystem, and the role of fire as an ecosystem process.
Fire Potential Index (FPI)	Landscape scale index used as proxy for assessing real-time risk of a wildfire under current and forecasted weather conditions.
Fire season	The time of year when wildfires are most likely for a given geographic region due to historical weather conditions, vegetative characteristics, and impacts of climate change. Each electrical corporation defines the fire season(s) across its service territory based on a recognized fire agency definition for the specific region(s) in California.
Frequency	The anticipated number of occurrences of an event or hazard over time.
Frequent PSPS events	Three or more PSPS events per calendar year per line circuit.
Fuel density	Mass of fuel (vegetation) per area that could combust in a wildfire.
Fuel management	Removal or thinning of vegetation to reduce the potential rate of propagation or intensity of wildfires.
Fuel moisture content	Amount of moisture in a given mass of fuel (vegetation), measured as a percentage of its dry weight.
Full-time employee (FTE)	Any individual in the ongoing and/or direct employ of the electrical corporation whose hours and/or term of employment are considered “full-time” for tax and/or any other purposes.
Game	A simulation of operations that often involves two or more teams, usually in a competitive environment, using rules, data, and procedures designed to depict an actual or assumed real-life situation.
Goals	The electrical corporation’s general intentions and ambitions.

GO 95 nonconformance	Condition of a utility asset that does not meet standards established by GO 95.
Grid hardening	Actions (such as equipment upgrades, maintenance, and planning for more resilient infrastructure) taken in response to the risk of undesirable events (such as outages) or undesirable conditions of the electrical system to reduce or mitigate those events and conditions, informed by an assessment of the relevant risk drivers or factors.
Grid topology	General design of an electric grid, whether looped or radial, with consequences for reliability and ability to support PSPS (e.g., ability to deliver electricity from an additional source).
Hazard	A condition, situation, or behavior that presents the potential for harm or damage to people, property, the environment, or other valued resources.[2]
Hazard tree	See danger tree
High Fire Threat District (HFTD)	Areas of the state designated by the CPUC as having elevated wildfire risk, where each utility must take additional action (per GO 95, GO 165, and GO 166) to mitigate wildfire risk. (D.17-01-009.)
High Fire Risk Area (HFRA)	Areas that the electrical corporation has deemed high risk from wildfire, independent of HFTD designation.
Highly rural region	In accordance with 38 CFR 17.701, area with a population of less than seven persons per square mile, as determined by the United States Bureau of the Census. For purposes of the WMP, "area" must be defined as a census tract.
High-risk species	Species of vegetation that (1) have a higher risk of either coming into contact with powerlines or causing an outage or ignition, or (2) are easily ignitable and within close proximity to potential arcing, sparks, and/or other utility equipment thermal failures. The status of species as "high-risk" must be a function of species-specific characteristics, including growth rate; failure rates of limbs, trunk, and/or roots (as compared to other species); height at maturity; flammability; and vulnerability to disease or insects.
High Wind Warning (HWW)	Level of wind risk from weather conditions, as declared by the National Weather Service (NWS). For historical NWS data, refer to the Iowa State University archive of NWS watches/warnings.[3]
HWW overhead (OH) circuit mile day	Sum of OH circuit miles of utility grid subject to a HWW each day within a given time period, calculated as the number of OH circuit miles under a HWW multiplied by the number of days those miles are under said HWW. For example, if 100 OH circuit miles are under a HWW for one day, and 10 of those miles are under the HWW for an additional day, then the total HWW OH circuit mile days would be 110.

[2] Adapted from SFPE, 2010, "Substantiating a Fire Model for a Given Application," *Society of Fire Protection Engineers Engineering Guides*.
[3] https://mesonet.agron.iastate.edu/request/gis/watchwarn.phtml.

Ignition consequence	The total anticipated adverse effects from an ignition at each location in the electrical corporation service territory. This considers the likelihood that an ignition will transition into a wildfire (wildfire spread likelihood) and the consequences that the wildfire will have on each community it reaches (wildfire consequence).
Ignition likelihood	The total anticipated annualized n umber of ignitions resulting from utility-owned assets at each location in the electrical corporation service territory. This considers probabilistic weather conditions, type and age of equipment, and potential contact of vegetation and other objects with utility assets.
Ignition probability	The relative possibility that an ignition will occur, quantified as a number between 0 perfect (impossibility) and 100 percent (certainty). The higher the probability of an event, the more certainty there is that the event will occur. (Often informally referred to as likelihood or chance.)
Ignition risk	The total anticipated annualized impacts from ignitions at a specific location. This considers the likelihood that an ignition will occur, the likelihood the ignition will transition into a wildfire, and the potential consequences – considering hazard intensity, exposure potential, and vulnerability – the wildfire will have on each community it reaches.
Impact/consequence of ignition	The effect or outcome of a wildfire ignition upon objectives that may be expressed by terms including, although not limited to, maintaining health and safety, ensuring reliability, and minimizing economic and/or environmental damage.
Incident command system (ICS)	A standardized on-scene emergency management construct. It is specifically designed to provide an integrated organizational structure that reflects the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries. The ICS is the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, designed to aid in the management of resources during incidents.
Initiative	Measure or activity, either proposed or in process, designed to reduce the consequences and/or probability of wildfire or PSPS.
Integrated public alert warning system (IPAWS)	System allowing the President to send a message to the American people quickly and simultaneously through multiple communications pathways in a national emergency. IPAWS also is available to the United States federal, state, local, territorial, and tribal government officials to alert the public via the Emergency Alert System (EAS), Wireless Emergency Alerts (WEA), National Oceanic and Atmospheric Administration (NOAA), Weather Radio, and other NWS dissemination channels; the internet; existing unique warning systems; and emerging distribution technologies.
Invasive species	A species (1) that is non-native (or alien) to the ecosystem under consideration and (2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health.
Level 1 finding	In accordance with GO 95, an immediate safety and/or reliability risk with high probability for significant impact.

Level 2 finding	In accordance with GO 95, a variable safety and/or reliability risk (non-immediate and with high to low probability for significant impact).
Level 3 finding	In accordance with GO 95, an acceptable safety and/or reliability risk.
Limited English Proficiency (LEP) population	Population with limited English working proficiency based on the International Language Roundtable scale.
Line miles	The number of miles of transmission and/or distribution conductors, including the length of each phase and parallel conductor segment.
Live fuel moisture content	Moisture content within living vegetation, which can retain water longer than dead fuel.
Locally relevant	In disaster risk management, generally understood as the scale at which disaster risk strategies and initiatives are considered the most effective at achieving desired outcomes, this tends to be the level closest to impacting residents and communities, reducing existing risks, and building capacity, knowledge, and normative support. Locally relevant scales, conditions, and perspectives depend on the context of application.
Match-drop simulation	Wildfire simulation method forecasting propagation and consequence/impact based on an arbitrary ignition.
Memorandum of Agreement (MOA)	A document of agreement between two or more agencies establishing reciprocal assistance to be provided upon request (and if available from the supplying agency) and laying out the guidelines under which this assistance will operate. It can also be a cooperative document in which parties agree to work together on an agreed-upon project or meet an agreed objective.
Mitigation	Activities to reduce the loss of life and property from natural and/or human-caused disasters by avoiding or lessening the impact of a disaster and providing value to the public by creating safer communities.
Model uncertainty	The amount by which a calculated value might differ from the true value when the input parameters are known (i.e., limitation of the model itself based on assumptions).[4]
Multi-attribute value function (MAVF)	Risk calculation methodology introduced during CPUC's Safety Model Assessment Proceedings (S-MAP) and Risk Assessment and Mitigation Phase (RAMP) proceeding. This methodology is established in D.18-12-014 but may be subject to change pursuant to R.20-07-013.
Mutual aid	Voluntary aid and assistance by the provision of services and facilities, including but not limited to electrical corporations, communication, and transportation. Mutual aid is intended to provide adequate resources, facilities, and other support to electrical corporations whenever their own resources prove inadequate to cope with a given situation.

[4] Adapted from SFPE, 2010, "Substantiating a Fire Model for a Given Application," *Society of Fire Protection Engineers Engineering Guides*.

National Incident Management System (NIMS)	A systematic, proactive approach to guide all levels of government, nongovernment organizations, and the private sector to work together to prevent, protect against, mitigate, respond to, and recover from the effects of incidents. NIMS provides stakeholders across the whole community with shared vocabulary, systems, and processes to successfully deliver the capabilities described in the National Preparedness System. NIMS provides a consistent foundation for dealing with all incidents, ranging from daily occurrences to incidents requiring a coordinated federal response.
Near miss	Term previously used for an event with probability of ignition (now "Risk event").
Objectives	Specific, measurable, achievable, realistic, and timely outcomes for the overall WMP strategy, or mitigation initiatives and activities that a utility can implement to satisfy the primary goals and subgoals of the WMP program.
Operations-based exercise	Type of exercise that validates plans, policies, agreements, and procedures; clarifies roles and responsibilities; and identifies resource gaps in an operational environment. Often includes drills, functional exercises (FEs), and full-scale exercises (FSEs).
Overall utility risk	The comprehensive risk due to both wildfire and PSPS incidents across a utility's territory; the aggregate potential of adverse impacts to people, property, critical infrastructure, or other valued assets in society.
Overall utility risk, ignition risk	See Ignition Risk.
Overall utility risk, PSPS risk	See PSPS Risk.
Parameter uncertainty	The amount by which a calculated value might differ from the true value based on unknown input parameters. (Adapted from Society of Fire Protection Engineers [SFPE] guidance.)
Patrol inspection	In accordance with GO 165, a simple visual inspection of applicable utility equipment and structures designed to identify obvious structural problems and hazards. Patrol inspections may be carried out in the course of other company business.
Performance metric	A quantifiable measurement that is used by an electrical corporation to indicate the extent to which its WMP is driving performance outcomes.
Population density	Population density is calculated using the American Community Survey (ACS) one-year estimate for the corresponding year or, for years with no such ACS estimate available, the estimate for the immediately preceding year.
Preparedness	A continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response. Within the NIMS, preparedness focuses on planning, procedures and protocols, training and exercises, personnel qualification and certification, and equipment certification.

Priority essential services	Critical first responders, public safety partners, critical facilities and infrastructure, operators of telecommunications infrastructure, and water electrical corporations/agencies.
Property	Private and public property, buildings and structures, infrastructure, and other items of value that may be destroyed by wildfire, including both third-party property and utility assets.
Protective equipment and device settings.	The electrical corporation's procedures for adjusting the sensitivity of grid elements to reduce wildfire risk, other than automatic reclosers (such as circuit breakers, switches, etc.). For example, PG&E's "Enhanced Powerline Safety Settings" (EPSS).
PSPS consequence	The total anticipated adverse effects of a PSPS for a community. This considers the PSPS exposure potential and inherent PSPS vulnerabilities of communities at risk.
PSPS event	The period from notification of the first public safety partner of a planned public safety PSPS to re-energization of the final customer.
PSPS exposure potential	The potential physical, social, or economic impact of a PSPS event on people, property, critical infrastructure, livelihoods, health, local economies, and other high-value assets.
PSPS likelihood	The likelihood of a PSPS being required by a utility given a probabilistic set of environmental conditions.
PSPS risk	The total anticipated annualized impacts from a PSPS event at a specific location. This considers the likelihood a PSPS event will be required due to environmental conditions exceeding design conditions and the potential consequences – considering exposure potential and vulnerability – of the PSPS event for each affected community.
Public safety partners	First/emergency responders at the local, state, and federal levels; water, wastewater, and communication service providers; community choice aggregators (CCAs); affected publicly owned electrical corporations/electrical cooperatives; tribal governments; Energy Safety; the Commission; the California Office of Emergency Services; and CAL FIRE.
Red Flag Warning (RFW)	Level of wildfire risk from weather conditions, as declared by the NWS. For historical NWS data, refer to the Iowa State University archive of NWS watches/warnings.[5]
RFW OH circuit mile day	Sum of OH circuit miles of utility grid subject to RFW each day within a given time period, calculated as the number of OH circuit miles under RFW multiplied by the number of days those miles are under said RFW. For example, if 100 OH circuit miles are under RFW for one day, and 10 of those miles are under RFW for an additional day, then the total RFW OH circuit mile days would be 110.

[5] https://mesonet.agron.iastate.edu/request/gis/watchwarn.phtml.

Risk	A measure of the anticipated adverse effects from a hazard considering the consequences and frequency of the hazard occurring.[6]
Risk component	A part of an electric corporation's risk analysis framework used to determine overall utility risk.
Risk evaluation	The process of comparing the results of a risk analysis with risk criteria to determine whether the risk and/or its magnitude is acceptable or tolerable. (ISO 31000:2009).
Risk event	An event with probability of ignition, such as wire down, contact with objects, line slap, event with evidence of heat generation, or other event that causes sparking or has the potential to cause ignition. The following all qualify as risk events: • Ignitions • Outages not caused by vegetation • Outages caused by vegetation • Wire-down events • Faults • Other events with potential to cause ignition
Risk management	Systematic application of management policies, procedures, and practices to the tasks of communication, consultation, establishment of context, and identification, analysis, evaluation, treatment, monitoring, and review of risk. (ISO 31000.)
Rule	Section of Public Utilities Code requiring a particular activity or establishing a particular threshold.
Rural region	In accordance with GO 165, area with a population of less than 1,000 persons per square mile, as determined by the U.S. Bureau of the Census.[7] For purposes of the WMP, "area" must be defined as a census tract.
Seminar	An informal discussion, designed to orient participants to new or updated plans, policies, or procedures (e.g., to review a new external communications standard operating procedure).
Sensitivity analysis	Process used to determine the relationships between the uncertainty in the independent variables ("input") used in an analysis and the uncertainty in the resultant dependent variables ("output"). (SFPE guidance.)
Slash	Branches or limbs less than four inches in diameter, and bark and split products debris left on the ground as a result of utility vegetation management. (This definition is consistent with California Public Resources Code section 4525.7)

[6] Adapted from D. Coppola, 2020, "Risk and Vulnerability," *Introduction to International Disaster Management*, 4th ed.
[7] https://www.cpuc.ca.gov/gos/GO95/go_95_rule_18.htm

Span	The space between adjacent supporting poles or structures on a circuit consisting of electric lines and equipment. “Span level” refers to asset-scale granularity.
Tabletop exercise (TTX)	A discussion-based exercise intended to stimulate discussion of various issues regarding a hypothetical situation. Tabletop exercises can be used to assess plans, policies, and procedures or to assess types of systems needed to guide the prevention of, response to, or recovery from a defined incident.
Target	A forward-looking, quantifiable measurement of work to which an electrical corporation commits to in its WMP. Electrical corporations will show progress toward completing targets in subsequent reports, including QDRs and WMP Updates.
Trees with strike potential	Trees that could either “fall in” to a power line or have branches detach and “fly in” to contact a power line in high-wind conditions.
Uncertainty	The amount by which an observed or calculated value might differ from the true value. For an observed value, the difference is “experimental uncertainty”; for a calculated value, it is “model” or “parameter uncertainty.” (Adapted from SFPE guidance.)
Urban region	In accordance with GO 165, area with a population of more than 1,000 persons per square mile, as determined by the U.S. Bureau of the Census. For purposes of the WMP, “area” must be defined as a census tract.
Utility-related ignition	See reportable ignition.
Validation	Process of determining the degree to which a calculation method accurately represents the real world from perspective of the intended uses of the calculation method without modifying input parameters based on observations in a specific scenario. (Adapted from ASTM E 1355.)
Vegetation Management (VM)	Trimming and removal of trees and other vegetation at risk of contact with electric equipment.
Verification	Process to ensure that a model is working as designed, that is, that the equations are being properly solved. Verification is essentially a check of the mathematics. (SFPE guidance.)
Vulnerability	The propensity of predisposition of a community to be adversely affected by a hazard, including the characteristics of a person, group, or service and their situation that influences their capacity to anticipate, cope with, resist, and recover from the adverse effects of a hazard.
Wildfire consequence	The total anticipated adverse effects from a wildfire on a community that is reached. this considers the wildfire hazard intensity, the wildfire exposure potential, and the inherent wildfire vulnerabilities of communities at risk.
Wildfire exposure potential	The potential physical, social, or economic impact of wildfire on people, property, critical infrastructure, livelihoods, health, environmental services, local economies, cultural/historical resources, and other high-value assets.

	This may include direct or indirect impacts, as well as short- and long-term impacts.
Wildfire intensity	The potential intensity of a wildfire at a specific location within the service territory given a probabilistic set of weather profiles, vegetation, and topography.
Wildfire mitigation strategy	Overview of the key mitigation initiatives at enterprise level and component level across the electrical corporation's service territory, including interim strategies where long-term mitigation initiatives have long implementation timelines. This includes a description of the enterprise-level monitoring and evaluation strategy for assessing overall effectiveness of the WMP.
Wildfire risk	See Ignition Risk.
Wildfire spread likelihood	The likelihood that a fire with a nearby but unknown ignition point will transition into a wildfire and will spread to a location in the service territory based on a probabilistic set of weather profiles, vegetation, and topography.
Wildland-urban interface (WUI)	The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetation fuels (National wildfire Coordinating Group). Enforcement agencies also designate the WUI as the area at significant risk from wildfires, established pursuant to Title 24, Part 2, Chapter 7A.
Wire down	Instance where an electric transmission or distribution conductor is broken and falls from its intended position to rest on the ground or a foreign object.
Work order	A prescription for asset or vegetation management activities resulting from asset or vegetation management inspection findings.
Workshop	Discussion that resembles a seminar but is employed to build specific products, such as a draft plan or policy (e.g., a multi-year training and exercise plan).

A.4 Definitions of Initiatives by Category

Category	Section #	Initiative	Definition
Overview of the Service Territory	5.4.5	Environmental compliance and permitting	Development and implementation of process and procedures to ensure compliance with applicable environmental laws, regulations, and permitting related to the implementation of the WMP.
Risk Methodology and Assessment	6	Risk Methodology and Assessment	Development and use of tools and processes to assess the risk of wildfire and PSPS across an electrical corporation's service territory.

Wildfire Mitigation Strategy Development	7	Wildfire Mitigation Strategy Development	Development and use of processes for deciding on a portfolio of mitigation initiatives to achieve maximum feasible risk reduction and that meet the goals of the WMP.
Grid Design, Operations, and Maintenance	8.1.2.1	Covered conductor installation	Installation of covered or insulated conductors to replace standard bare or unprotected conductors (defined in accordance with GO 95 as supply conductors, including but not limited to lead wires, not enclosed in a grounded metal pole or not covered by: a “suitable protective covering” (in accordance with Rule 22.8), grounded metal conduit, or grounded metal sheath or shield). In accordance with GO 95, conductor is defined as a material suitable for: (1) carrying electric current, usually in the form of a wire, cable or bus bar, or (2) transmitting light in the case of fiber optics; insulated conductors as those which are surrounded by an insulating material (in accordance with Rule 21.6), the dielectric strength of which is sufficient to withstand the maximum difference of potential at normal operating voltages of the circuit without breakdown or puncture; and suitable protective covering as a covering of wood or other non-conductive material having the electrical insulating efficiency (12kV/in. dry) and impact strength (20ft.-lbs) of 1.5 inches of redwood or other material meeting the requirements of Rule 22.8-A, 22.8-B, 22.8-C, or 22.8-D,
Grid Design, Operations, and Maintenance	8.1.2.2	Undergrounding of electric lines and/or equipment	Actions taken to convert overhead electric lines and/or equipment to underground electric lines and/or equipment (i.e., located underground and in accordance with GO 128).
Grid Design, Operations, and Maintenance	8.1.2.3	Distribution pole replacements and reinforcements	Remediation, adjustments, or installations of new equipment to improve or replace existing distribution poles (i.e., those supporting lines under 65kV), including with equipment such as composite poles manufactured with materials reduce ignition probability by increasing pole lifespan and resilience against failure from object contact and other events.

Grid Design, Operations, and Maintenance	8.1.2.4	Transmission pole/tower replacements and reinforcements	Remediation, adjustments, or installations of new equipment to improve or replace existing transmission towers (e.g., structures such as lattice steel towers or tubular steel poles that support lines at or above 65kV).
Grid Design, Operations, and Maintenance	8.1.2.5	Traditional overhead hardening	Maintenance, repair, and replacement of capacitors, circuit breakers, cross-arms, transformers, fuses, and connectors (e.g., hot line clamps) with the intention of minimizing the risk of ignition.
Grid Design, Operations, and Maintenance	8.1.2.6	Emerging grid hardening technology installations and pilots	Development, deployment, and piloting of novel grid hardening technology.
Grid Design, Operations, and Maintenance	8.1.2.7	Microgrids	Development and deployment of microgrids that may reduce the risk of ignition, risk from PSPS, and wildfire consequence. “Microgrid” is defined by Public Utilities Code section 8370(d).
Grid Design, Operations, and Maintenance	8.1.2.8	Installation of system automation equipment	Installation of electric equipment that increases the ability of the electrical corporation to automate system operation and monitoring, including equipment that can be adjusted remotely such as automatic reclosers (switching devices designed to detect and interrupt momentary faults that can reclose automatically and detect if a fault remains, remaining open if so).
Grid Design, Operations, and Maintenance	8.1.2.9	Line removals (in HFTD)	Removal of overhead lines to minimize the risk of ignition due to the design, location, or configuration of electric equipment in HFTDs.
Grid Design, Operations, and Maintenance	8.1.2.10	Other grid topology improvements to minimize risk of ignitions	Actions taken to minimize the risk of ignition due to the design, location, or configuration of electric equipment in HFTDs not covered by another initiative.
Grid Design, Operations, and Maintenance	8.1.2.11	Other grid topology improvements to mitigate or reduce PSPS events	Actions to mitigate or reduce PSPS events in terms of geographic scope and number of customers affected not covered by another initiative.
Grid Design, Operations, and Maintenance	8.1.2.12	Other technologies and systems not listed above	Other grid design and system hardening actions which the electrical corporation takes to reduce its ignition and PSPS risk not otherwise covered by other initiatives in this section.

Grid Design, Operations, and Maintenance	8.1.3.1	Asset inspections	Inspections of overhead electric transmission lines, equipment, and right-of-way.
Grid Design, Operations, and Maintenance	8.1.4	Equipment maintenance and repair	Remediation, adjustments, or installations of new equipment to improve or replace existing connector equipment, such as hotline clamps.
Grid Design, Operations, and Maintenance	8.1.5	Asset management and inspection enterprise system(s)	Operation of and support for centralized asset management and inspection enterprise system(s) updated based upon inspection results and activities such as hardening, maintenance, and remedial work.
Grid Design, Operations, and Maintenance	8.1.6	Quality Assurance / Quality Control	Establishment and function of audit process to manage and confirm work completed by employees or contractors, including packaging QA/QC information for input to decision-making and related integrated workforce management processes.
Grid Design, Operations, and Maintenance	8.1.7	Open work orders	Actions taken to manage the electrical corporation's open work orders resulting from inspections that prescribe asset management activities.
Grid Design, Operations, and Maintenance	8.1.8.1	Equipment Settings to Reduce Wildfire Risk	The electrical corporation's procedures for adjusting the sensitivity of grid elements to reduce wildfire risk.
Grid Design, Operations, and Maintenance	8.1.8.2	Grid Response Procedures and Notifications	The electrical corporation's procedures it uses to respond to faults, ignitions, or other issues detected on its grid that may result in a wildfire.
Grid Design, Operations, and Maintenance	8.1.8.3	Personnel Work Procedures and Training in Conditions of Elevated Fire Risk	Work activity guidelines that designate what type of work can be performed during operating conditions of different levels of wildfire risk. Training for personnel on these guidelines and the procedures they prescribe, from normal operating procedures to increased mitigation measures to constraints on work performed.
Grid Design, Operations, and Maintenance	8.1.9	Workforce Planning	Programs to ensure that the electrical corporation has qualified asset personnel and to ensure that both employees and contractors tasked with asset management responsibilities are adequately trained to perform relevant work.

Vegetation Management and Inspection	8.2.2.1	Vegetation inspections	Inspections of vegetation around adjacent to electrical facilities and equipment that may be hazardous by growing, blowing, or falling into electrical facilities or equipment.
Vegetation Management and Inspection	8.2.3.1	Pole clearing	Plan and execution of vegetation removal around poles per Public Resources Code section 4292 and outside the requirements of Public Resources Code section 4292 (e.g., pole clearing performed outside of the State Responsibility Area).
Vegetation Management and Inspection	8.2.3.2	Wood and slash management	Actions taken to manage all downed wood and “slash” generated from vegetation management activities.
Vegetation Management and Inspection	8.2.3.3	Clearance	Actions taken after inspection to ensure that vegetation does not encroach upon electrical equipment and facilities, such as tree trimming.
Vegetation Management and Inspection	8.2.3.4	Fall-in mitigation	Actions taken to identify and remove or otherwise remediate trees that pose a high risk of failure or fracture that could potentially strike electrical equipment.
Vegetation Management and Inspection	8.2.3.5	Substation defensible space	Actions taken to reduce ignition probability and wildfire consequence due to contact with substation equipment.
Vegetation Management and Inspection	8.2.3.6	High-risk species	Actions taken to reduce the ignition probability and wildfire consequence attributable to high-risk species of vegetation.
Vegetation Management and Inspection	8.2.3.7	Fire-resilient rights-of-way	Actions taken to promote vegetation communities that are sustainable, fire-resilient, and compatible with the use of the land as an electrical corporation right-of-way.
Vegetation Management and Inspection	8.2.3.8	Emergency response vegetation management	Planning and execution of vegetation activities in response to emergency situations including weather conditions that indicate an elevated fire threat and post-wildfire service restoration.
Vegetation Management and Inspection	8.2.4	Vegetation management enterprise system	Operation of and support for centralized vegetation management and inspection enterprise system(s) updated based upon inspection results and activities such as hardening, maintenance, and remedial work.

Vegetation Management and Inspection	8.2.5	Quality Assurance / Quality Control	Establishment and function of audit process to manage and confirm work completed by employees or contractors, including packaging QA/QC information for input to decision-making and related integrated workforce management processes.
Vegetation Management and Inspection	8.2.6	Open work orders	Actions taken to manage the electrical corporation's open work orders resulting from inspections that prescribe vegetation management activities.
Vegetation Management and Inspection	8.2.7	Workforce planning	Programs to ensure that the electrical corporation has qualified vegetation management personnel and to ensure that both employees and contractors tasked with vegetation management responsibilities are adequately trained to perform relevant work.
Situational Awareness and Forecasting	8.3.2	Environmental monitoring systems	Development and deployment of systems which measure environmental characteristics, such as fuel moisture, air temperature, and velocity.
Situational Awareness and Forecasting	8.3.3	Grid monitoring systems	Development and deployment of systems that checks the operational conditions of electrical facilities and equipment and detects such things as faults, failures, and recloser operations.
Situational Awareness and Forecasting	8.3.4	Ignition detection systems	Development and deployment of systems which discover or identify the presence or existence of an ignition, such as cameras.
Situational Awareness and Forecasting	8.3.5	Weather forecasting	Development methodology for forecast of weather conditions relevant to electrical corporation operations, forecasting weather conditions and conducting analysis to incorporate into utility decision-making, learning and updates to reduce false positives and false negatives of forecast PSPS conditions.
Situational Awareness and Forecasting	8.3.6	Fire potential index	Calculation and application of a landscape scale index used as a proxy for assessing real-time risk of a wildfire under current and forecasted weather conditions.
Emergency Preparedness	8.4.2	Emergency preparedness plan	Development and integration of wildfire- and PSPS-specific emergency strategies, practices, policies, and procedures into the electrical corporation's overall emergency

			plan based on the minimum standards described in the GO 166.
Emergency Preparedness	8.4.3	External collaboration and coordination	Actions taken to coordinate wildfire and PSPS emergency preparedness with relevant public safety partners including the state, cities, counties, and tribes.
Emergency Preparedness	8.4.4	Public emergency communication strategy	Development and integration of a comprehensive communication strategy to inform essential customers and other stakeholder groups of wildfires, outages due to wildfires, and PSPS and service restoration, as required by Public Utilities Code section 768.6.
Emergency Preparedness	8.4.5	Preparedness and planning for service restoration	Development and integration of the electrical corporation's plan to restore service after an outage due to a wildfire or PSPS event.
Emergency Preparedness	8.4.6	Customer support in wildfire and PSPS emergencies.	Development and deployment of programs, systems, and protocols to support residential and non-residential customers in wildfire emergencies and PSPS events.
Community Outreach and Engagement	8.5.2	Public outreach and education awareness program	Development and deployment of public outreach and education awareness program(s) for wildfires; outages due to wildfires, PSPS events, and protective equipment and device settings; service restoration before, during, and after the incidents and vegetation management.
Community Outreach and Engagement	8.5.3	Engagement with access and functional needs populations	Actions taken understand, evaluate, design, and implement wildfire and PSPS risk mitigation strategies, policies, and procedures specific to access and functional needs customers.
Community Outreach and Engagement	8.5.4	Collaboration on local wildfire mitigation planning	Development and integration of plans, programs, and/or policies for collaborating with communities on local wildfire mitigation planning, such as wildfire safety elements in general plans, community wildfire protection plans, and local multi-hazard mitigation plans.
Community Outreach and Engagement	8.5.5	Best practice sharing with other utilities	Development and integration of an electrical corporation's policy for sharing best practices and collaborating with other electrical corporations on technical and

			programmatic aspects of its WMP program.

Appendix B. Supporting Documentation for Risk Methodology and Assessment

Note: as part of its 2023-2025 WMP, the electrical corporation is required to provide the "Summary Documentation" as defined by this appendix. For all other requirements in this appendix, the electrical corporation must be readily able to provide the defined documentation in response to a data request by Energy Safety or designated stakeholders.

The risk modeling and assessment in the main body of these Guidelines and electrical corporation's WMP are focused on providing a streamlined overview of the electrical corporation risk framework and key findings from the assessment necessary to understand the wildfire mitigation strategy presented in Section 7.

The focus of this appendix is to provide additional information pertaining to the risk modeling approach used by the electrical corporation. This includes the following:

- Additional detail on model calculations supporting the calculation risk and risk components
- Additional detail on the calculation of risk and risk components
- More detailed presentation of the findings

The following sections establish the reporting requirements for the approaches used by the electrical corporation to calculate each risk and risk component. These have been synthesized and adapted from guidance documents on model quality assurance developed by many agencies, with a focus on guidance related to machine learning, artificial intelligence, and fire science and engineering. These guidance documents include those from the Institute of Electrical and Electronics Engineers (IEEE),[8] the Society of Fire Protection Engineers (SFPE),[9] the American Society for Testing and Materials (ASTM International),[10] the U.S. Nuclear Regulatory Commission (NRC),[11] the Electric Power Research Institute (EPRI), the National Institute of Standards and Technology (NIST),[12] and the International Organization for Standardization (ISO).[13]

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[8] IEEE, 2022, "P2841/D2: Draft Framework and Process for Deep Learning Evaluation."

[9] SFPE, 2010, "Substantiating a Fire Model for a Given Application," Engineering Guides.

[10] ASTM, 2005, "ASTM E1472: Standard Guide for Documenting Computer Software for Fire Models," ASTM International.
ASTM, 2005, "ASTM E1895: Standard Guide for Determining Uses and Limitations of Deterministic Fire Models," ASTM International.
ASTM, 2005, "ASTM E1355: Standard Guide for Evaluating the Predictive Capability of Deterministic Fire Models," ASTM International.

[11] U.S. NRC, EPRI, Jensen Hughes, NIST, 2016, "NUREG-1824: Verification and Validation of Selected Fire Models for Nuclear Power Plant Applications. Supplement 1."
U.S. NRC, EPRI, Hughes Associates, Inc., NIST, California Polytechnic State University, Westinghouse Electric Company, University of Maryland, Science Applications International Corporation, ERIN Engineering, 2012, "NUREG-1934: Nuclear Power Plant Fire Modeling Application Guide."

[12] NIST, 1981, "NBS SP 500-73: Computer Model Documentation Guide."

[13] ISO, 2013, "ISO/TR 16730:2013: Fire Safety Engineering: Assessment, Verification and Validation of Calculation Methods."
ISO, 2021, "ISO/IEC TR 24027:2021: Information Technology: Artificial Intelligence (AI) – Bias in AI Systems and AI Aided Decision Making."

B.1 Summary Documentation

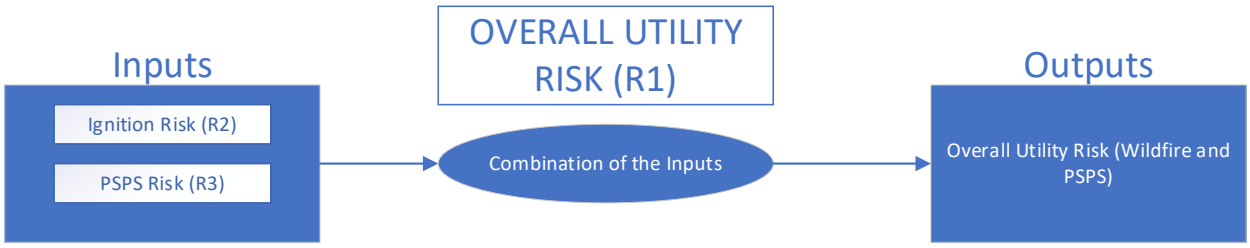
The electrical corporation must provide high-level information on the calculation of each risk and risk component used in its risk analysis. The summary documentation must include each of the following:

- ***High-level bow tie schematic** showing the inputs, outputs, and interaction between risk components in the format shown in Figure B-1. An example is provided below.*
- ***High-level calculation procedure schematic** in the format shown in Figure B-2. This schematic must show the logical flow from input data to outputs, including separate items for any intermediate calculations in models or sub-models and any input from subject matter experts.*
- ***High-level narrative describing the calculation procedure** in a concise executive summary. This narrative must include the following:*
    - *Purpose of the calculation/model*
    - *Assumptions and limitations*
    - *Description of the calculation procedure shown in the bow tie and high-level schematics*
    - *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*
    - *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

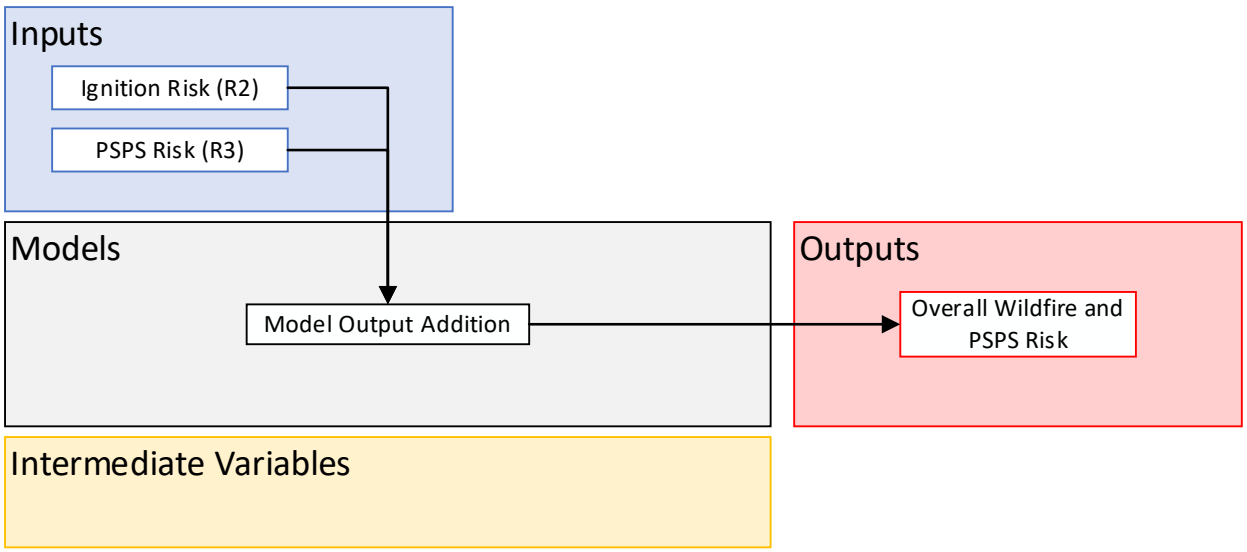
ISO, 2021, “ISO/IEC TR 24029:2021: Artificial Intelligence (AI): Assessment of the Robustness of Neural Networks.”

B.1.1 Overall Utility Risk (R1)

High-level bow tie schematic



High-level calculation procedure schematic



High-level narrative

- *Purpose of the calculation/model*

The Overall Utility Risk is a combination of Ignition Risk and PSPS Risk and is intended to provide the overall risk by circuit.

- *Assumptions and limitations*

The Overall Utility Risk is based on sub-component calculations such as ignition likelihood, wildfire consequence, etc. These calculations have built in assumptions and limitations that would carry through to the Overall Utility Risk calculation.

- *Description of the calculation procedure shown in the bow tie and high-level schematics*

Overall Utility Risk is the addition of Ignition Risk and PSPS Risk.

- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*

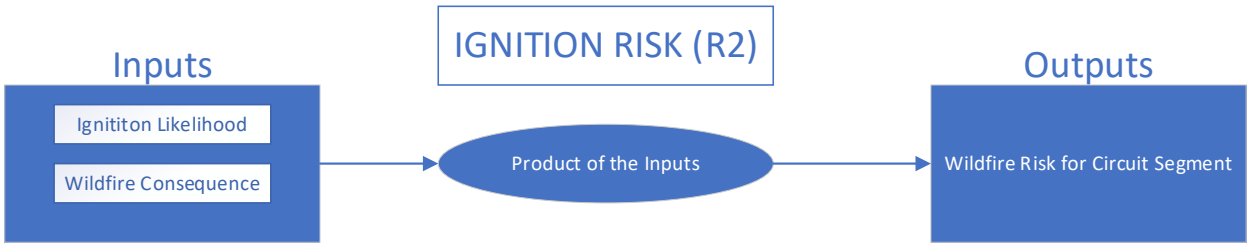
BVES will be able to use Overall Utility Risk and its sub-components (Ignition Risk and PSPS Risk) and present them as values the decision makers to aid in determination of mitigation initiative prioritization. In its most common form will be the use of output values but heat maps of the outputs may also be used.

- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

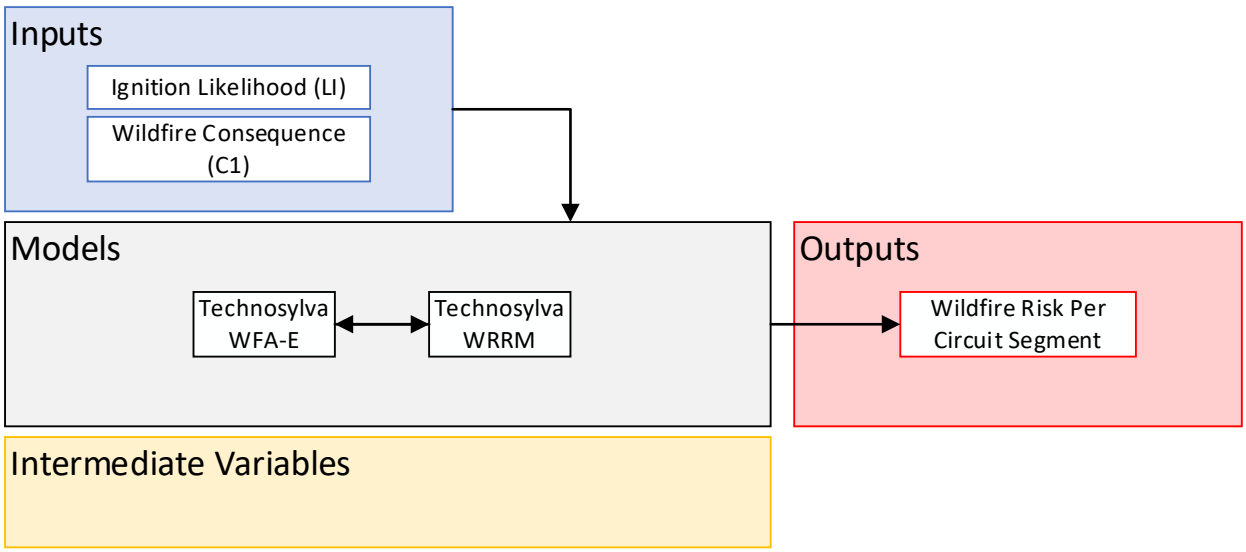
BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM and FPI in evaluating asset risks.

B.1.2 Ignition Risk (R2)

High-level bow tie schematic



High-level calculation procedure schematic



High-level narrative

- *Purpose of the calculation/model*

The ignition risk model can also be understood as wildfire risk. It is designed to demonstrate the geospatial risk of ignition and the associated expected consequences due to BVES's assets and equipment and their operations across the service territory.

- *Assumptions and limitations*

The risk calculation is based on assumptions and limitations from more granular sub-components (e.g., Likelihood of Ignition, Wildfire Consequences, etc.). This model assumes all like equipment, vegetation, and other factors behave in the same manner under the expected conditions. The models are limited by ability to fully adjust for combined mitigation affects. Additionally, areas that appear similarly on mapping and modeling often have great variation among sites. For example, the entry of the presence of Tier 3 HFTD designation may not reflect stretches of sparse vegetation or cleared ground under overhead equipment.

- *Description of the calculation procedure shown in the bow tie and high-level schematics*

Ignition or Wildfire Risk is a multiplication of the Ignition Likelihood and Wildfire Consequence.

- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*

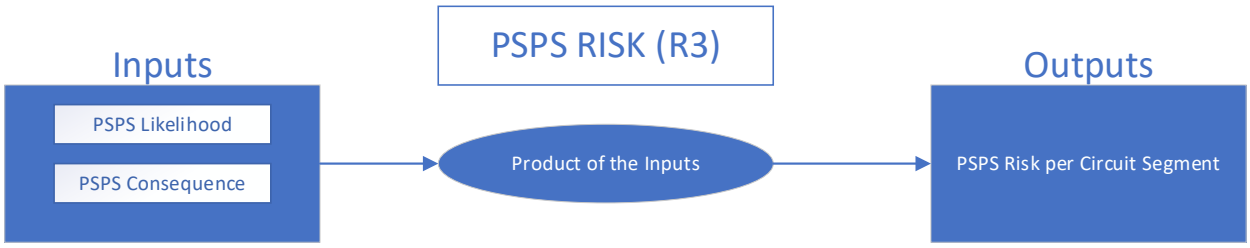
Ignition or Wildfire Risk can be broken down into its two components (Ignition Likelihood and Wildfire Consequence).

- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

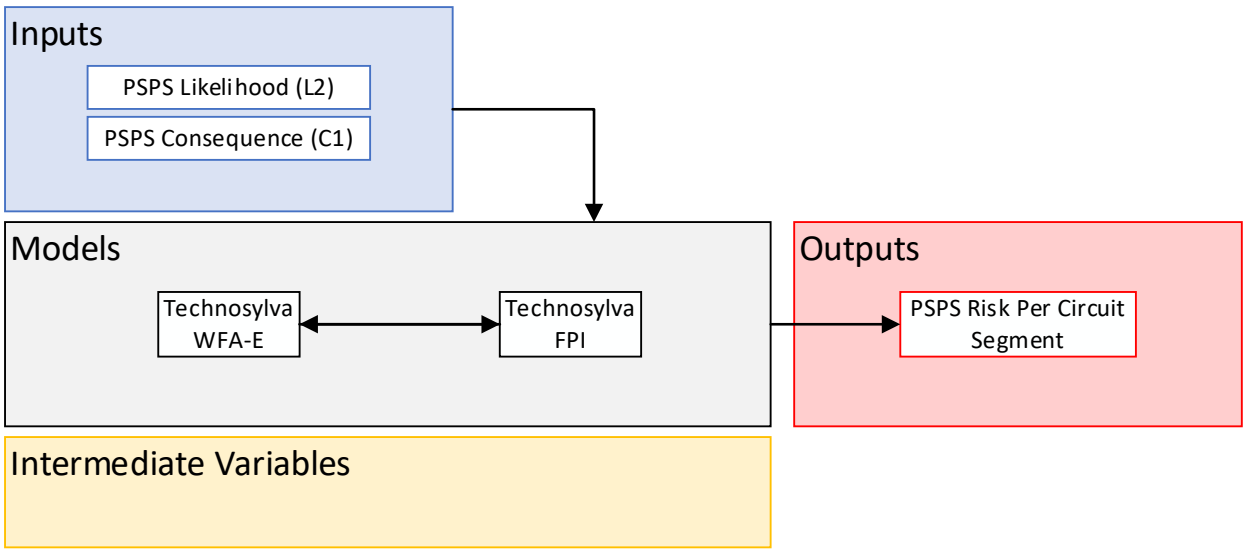
BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM in evaluating asset and wildfire risks.

B.1.3 PSPS Risk (R3)

High-level bow tie schematic



High-level calculation procedure schematic



High-level narrative

- *Purpose of the calculation/model*

PSPS Risk calculates the overall PSPS risk, based on two inputs – PSPS Likelihood and PSPS Consequences.

- *Assumptions and limitations*

The risk calculation is based on assumptions and limitations from more granular sub-components – PSPS Likelihood and PSPS Consequences.

- *Description of the calculation procedure shown in the bow tie and high-level schematics*

PSPS Risk is a product of PSPS Likelihood and PSPS Consequences.

- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*

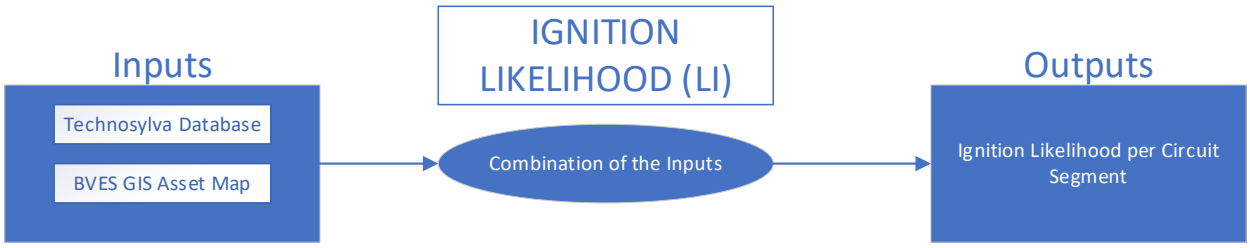
PSPS Risk components (likelihood and consequences) can be shown individually or shown as a single risk score per circuit, depending on the purpose of the presentation.

- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

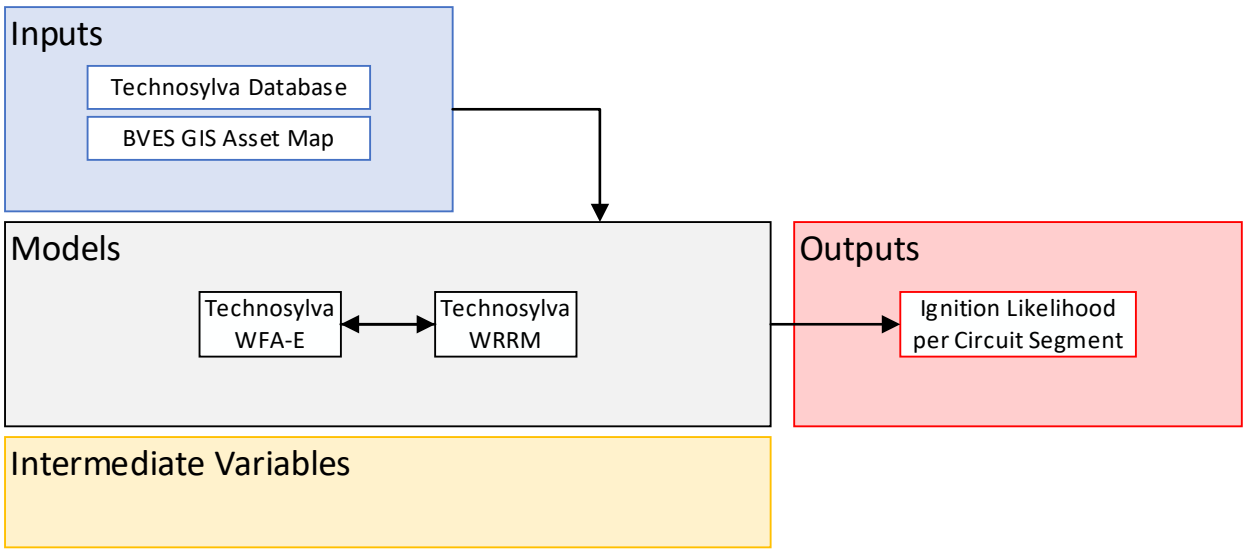
BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM and FPI in evaluating PSPS risks.

B.1.4 Ignition Likelihood (LI)

High-level bow tie schematic



High-level calculation procedure schematic



High-level narrative

- *Purpose of the calculation/model*

Ignition Likelihood is synonymous with Probability of Ignition, which is based on inputs of the risk likelihood models (e.g., Equipment Likelihood of Ignition, Contact from Vegetation Likelihood, and Contact from Object Likelihood).

- *Assumptions and limitations*

The probability of ignition is a probabilistic assessment of each asset's pre-mitigated ignition likelihood (wildfire likelihood) prior to mitigation deployment.

- *Description of the calculation procedure shown in the bow tie and high-level schematics*

LI is the sum of the ignition component probabilities at that location (i.e., Equipment Ignition Likelihood, Contact from Vegetation Ignition Likelihood, and Contact by Object Ignition Likelihood.

- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*

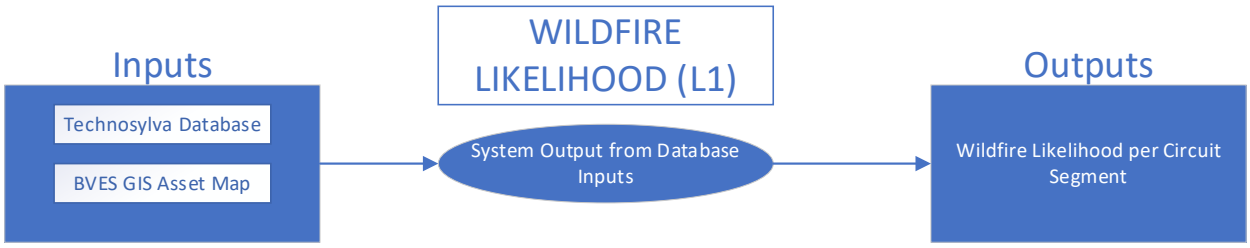
Ignition Likelihood can be broken down into its components (i.e., Equipment Ignition Likelihood, Contact from Vegetation Ignition Likelihood, and Contact by Object Ignition Likelihood and can be further broken down into individual contact types and equipment failures.

- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

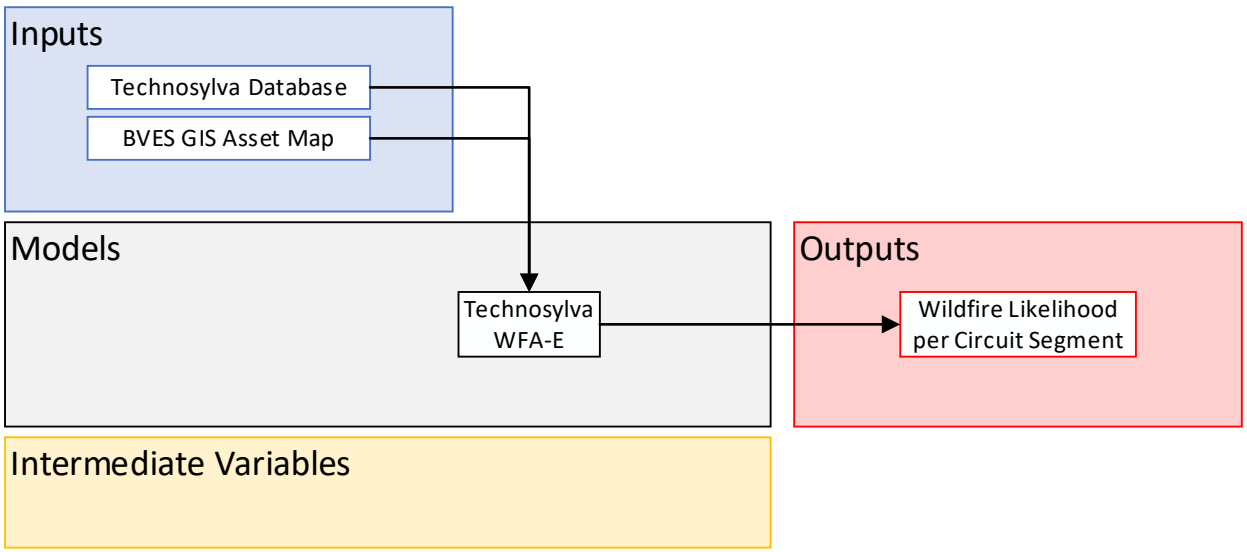
BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation from Technosylva for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM and FPI in evaluating asset, fire, and PSPS risks.

B.1.5 Wildfire Likelihood (L1)

High-level bow tie schematic



High-level calculation procedure schematic



High-level narrative

- *Purpose of the calculation/model*

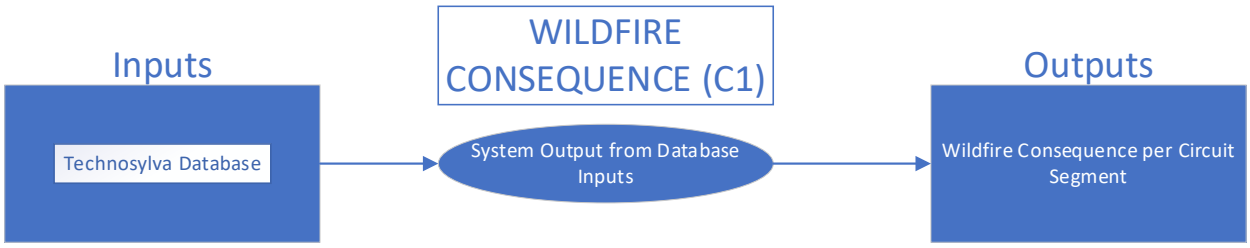
Understanding the wildfire likelihood per circuit segment.

- *Assumptions and limitations*
- *Description of the calculation procedure shown in the bow tie and high-level schematics*
- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*
- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

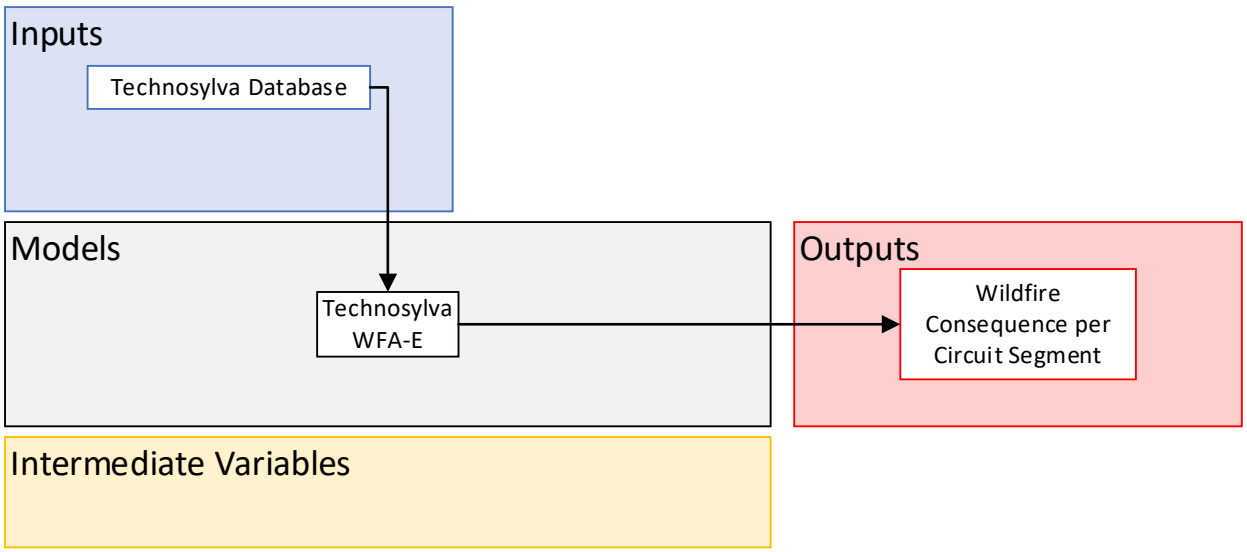
BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM and FPI in evaluating wildfire risks.

B.1.6 Wildfire Consequence (C1)

High-level bow tie schematic



High-level calculation procedure schematic



High-level narrative

- *Purpose of the calculation/model*

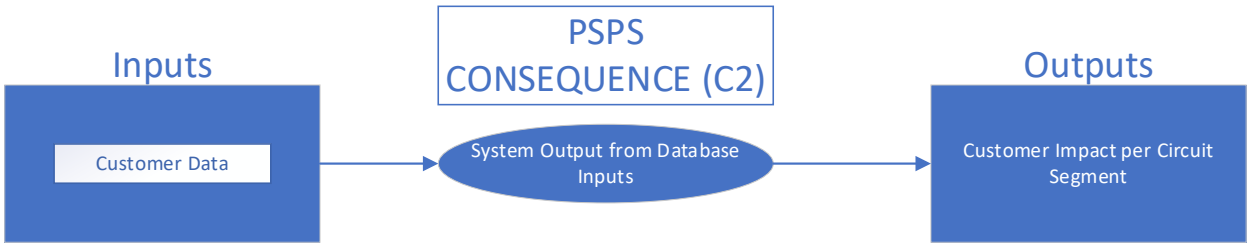
The purpose of the model it to assess wildfire consequence based on match-drop simulations for utility asset locations.

- *Assumptions and limitations*
- *Description of the calculation procedure shown in the bow tie and high-level schematics*
- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*
- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

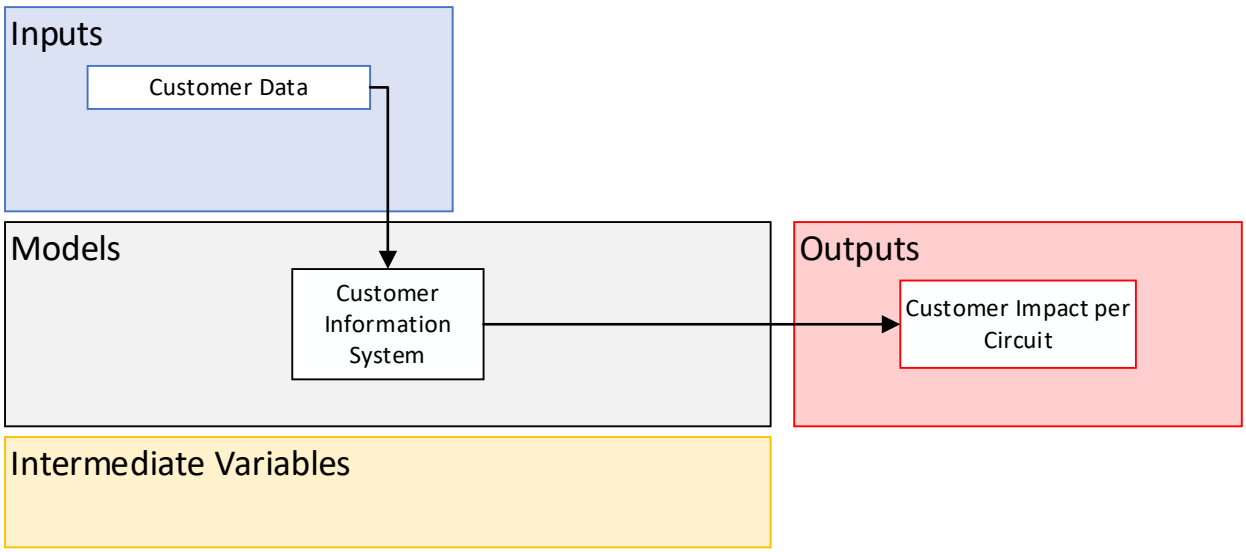
BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM and FPI in evaluating wildfire risks and consequences.

B.1.7 PSPS Consequence (C2)

High-level bow tie schematic



High-level calculation procedure schematic



High-level narrative

- *Purpose of the calculation/model*

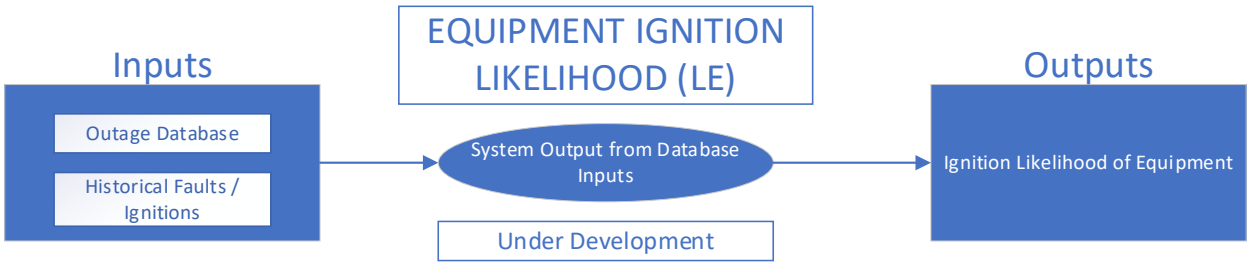
The purpose of the calculation is to determine the projected customer impact for a given circuit segment in the form of customer per circuit.

- *Assumptions and limitations*
- *Description of the calculation procedure shown in the bow tie and high-level schematics*
- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*
- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

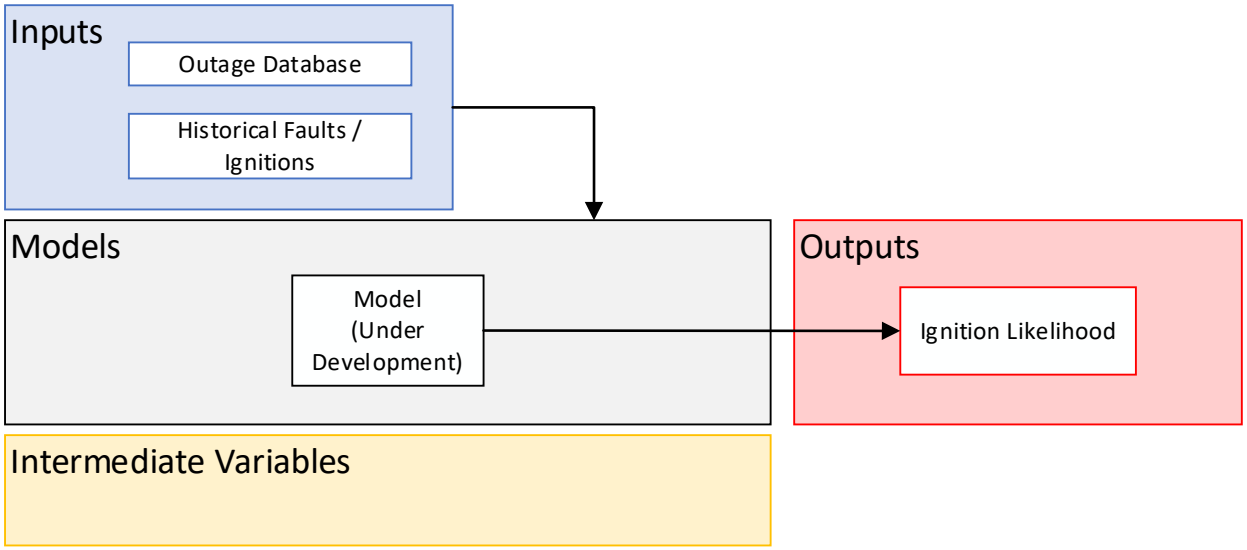
BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM in evaluating PSPS risks and consequences.

B.1.8 Equipment Ignition Likelihood (LE)

High-level bow tie schematic



High-level calculation procedure schematic



High-level narrative

This risk component is currently in development. Additional information will be provided upon its completion.

- *Purpose of the calculation/model*
- *Assumptions and limitations*
- *Description of the calculation procedure shown in the bow tie and high-level schematics*

The bow tie model and high-level schematic are representative of what BVES believes the process will look like. Following the completion of the development phase an accurate model can be made available.

- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*

As the model is still in development BVES is not yet aware how the output will be characterized and presented to decision makers. Following the completion of the development phase BVES will have a better understanding of the output and how it can be used by decision makers in the wildfire mitigation process.

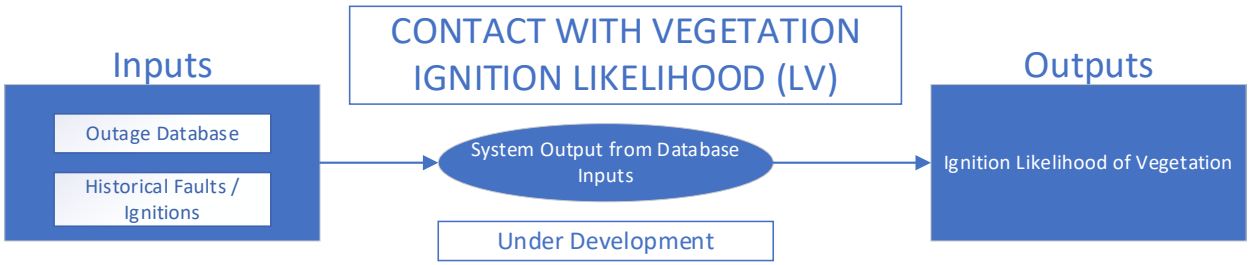
- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety*

Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.

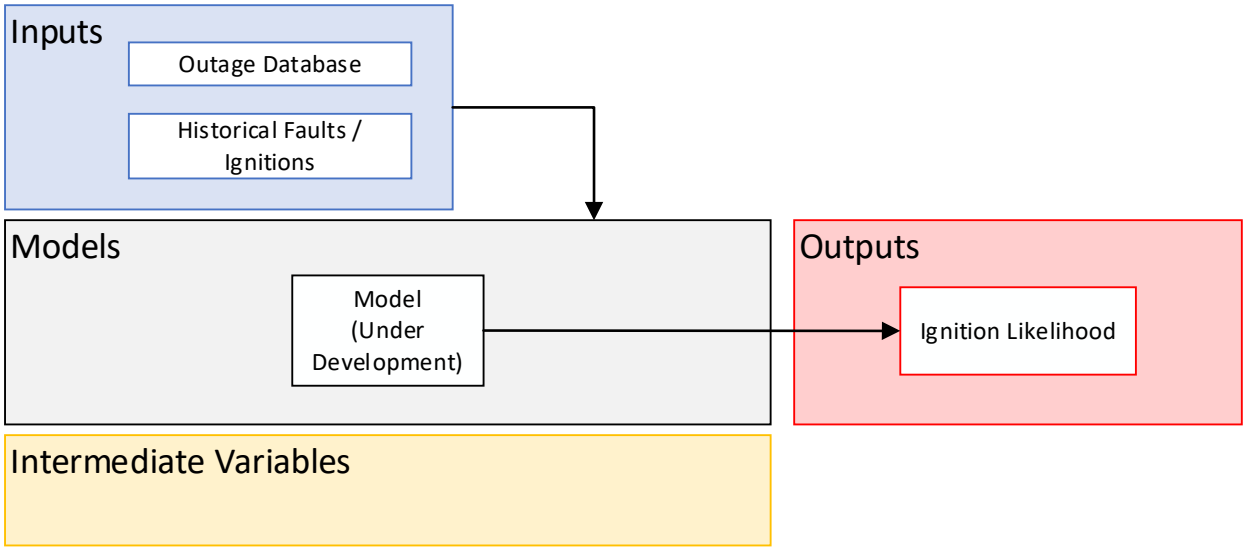
BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM and FPI in evaluating wildfire risks including equipment ignition likelihood.

B.1.9 Contact with Vegetation Ignition Likelihood (LV)

High-level bow tie schematic



High-level calculation procedure schematic



High-level narrative

This risk component is currently in development. Additional information will be provided upon its completion.

- *Purpose of the calculation/model*
- *Assumptions and limitations*
- *Description of the calculation procedure shown in the bow tie and high-level schematics*

The bow tie model and high-level schematic are representative of what BVES believes the process will look like. Following the completion of the development phase an accurate model can be made available.

- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*

As the model is still in development BVES is not yet aware how the output will be characterized and presented to decision makers. Following the completion of the development phase BVES will have a better understanding of the output and how it can be used by decision makers in the wildfire mitigation process.

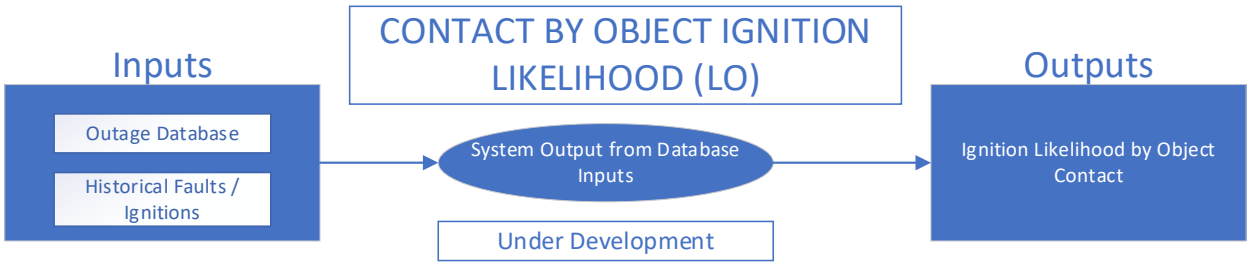
- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety*

Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.

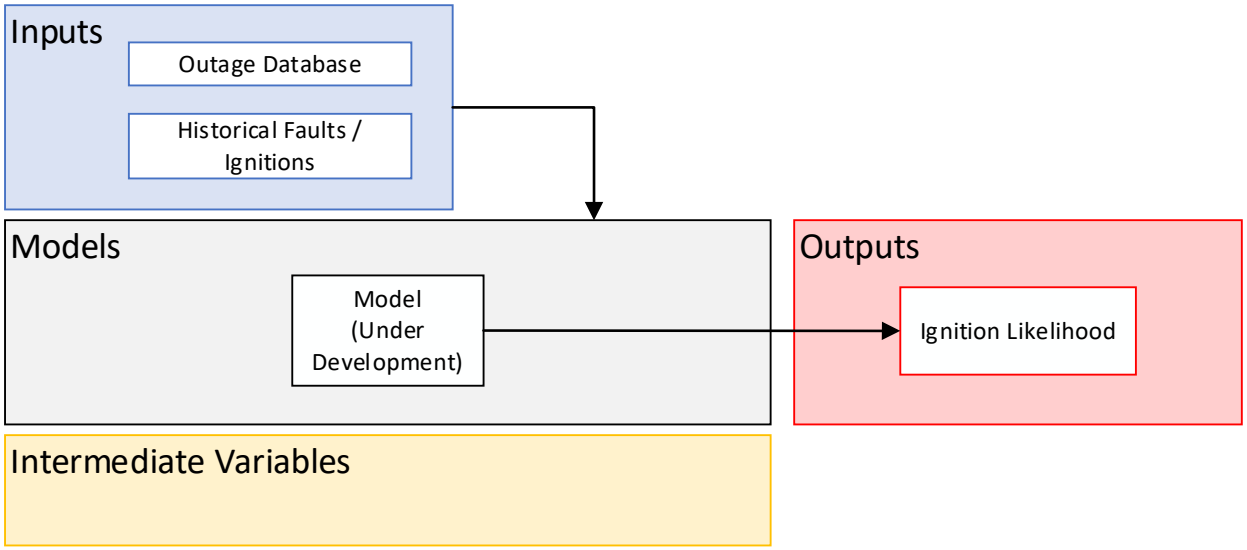
BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM and FPI in evaluating wildfire risks including vegetation ignition likelihood.

B.1.10 Contact by Object Ignition Likelihood (LO)

High-level bow tie schematic



High-level calculation procedure schematic



High-level narrative

This risk component is currently in development. Additional information will be provided upon its completion.

- *Purpose of the calculation/model*
- *Assumptions and limitations*
- *Description of the calculation procedure shown in the bow tie and high-level schematics*

The bow tie model and high-level schematic are representative of what BVES believes the process will look like. Following the completion of the development phase an accurate model can be made available.

The bow tie model and high-level schematic are representative of what BVES believes the process will look like. Following the completion of the development phase an accurate model can be made available.

- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*

As the model is still in development BVES is not yet aware how the output will be characterized and presented to decision makers. Following the completion of the development phase BVES

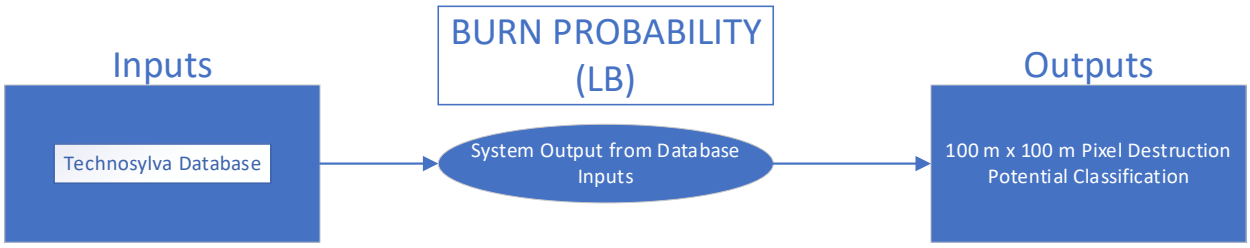
will have a better understanding of the output and how it can be used by decision makers in the wildfire mitigation process.

- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

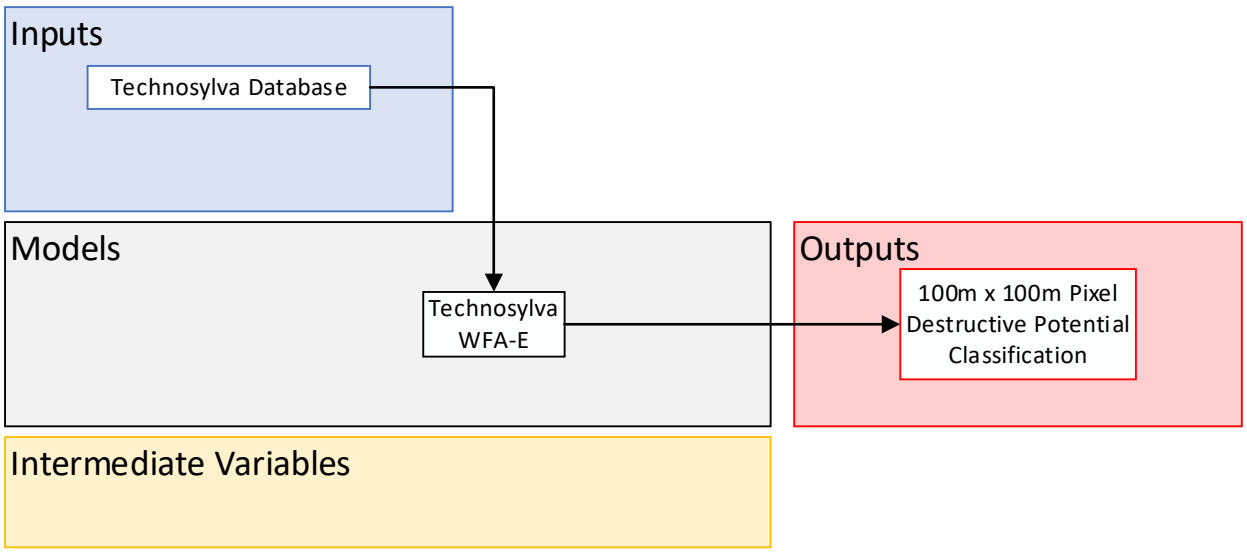
BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM and FPI in evaluating wildfire risks including contact by object ignition likelihood.

B.1.11 Burn Probability (LB)

High-level bow tie schematic



High-level calculation procedure schematic



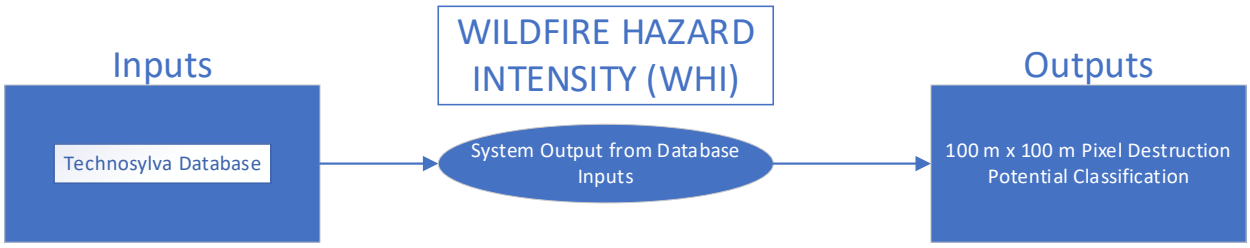
High-level narrative

- *Purpose of the calculation/model*
- *Assumptions and limitations*
- *Description of the calculation procedure shown in the bow tie and high-level schematics*
- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*
- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

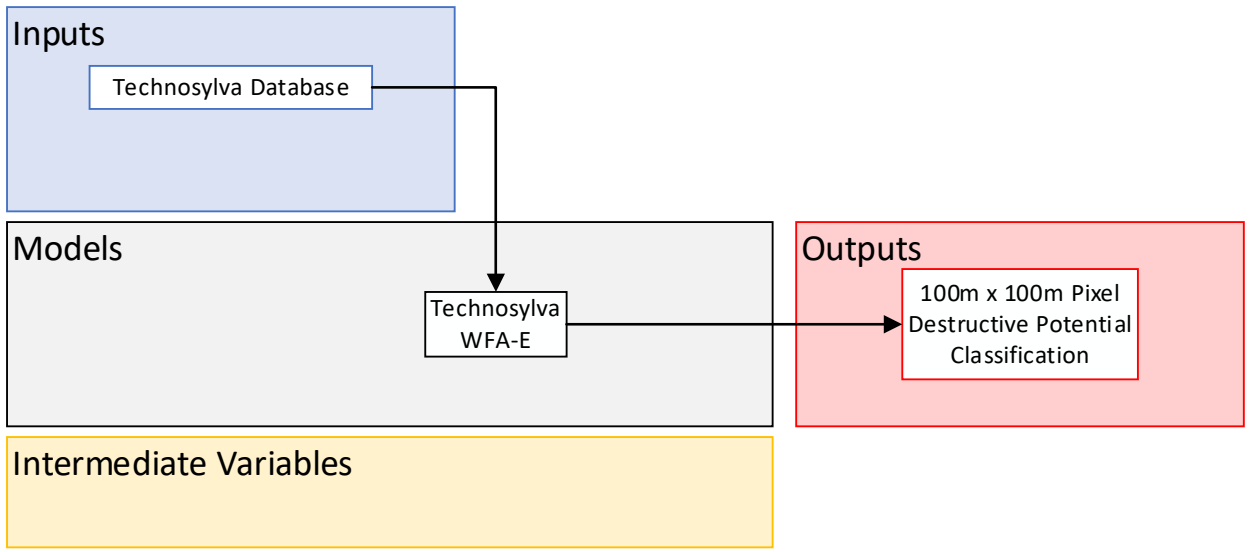
BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM and FPI in evaluating wildfire risks including burn probability.

B.1.12 Wildfire Hazard Intensity (WHI)

High-level bow tie schematic



High-level calculation procedure schematic



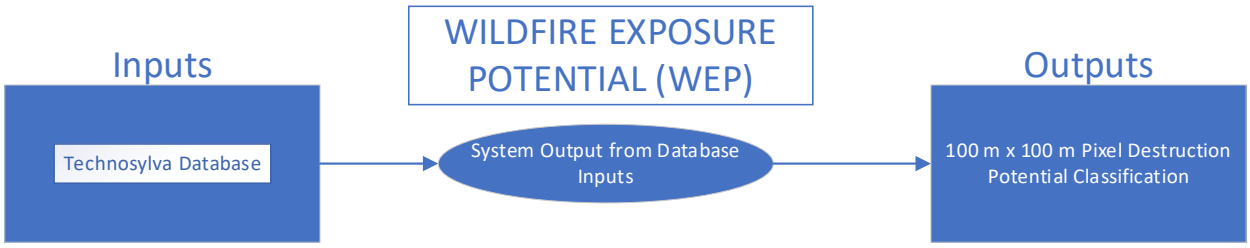
High-level narrative

- *Purpose of the calculation/model*
- *Assumptions and limitations*
- *Description of the calculation procedure shown in the bow tie and high-level schematics*
- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*
- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

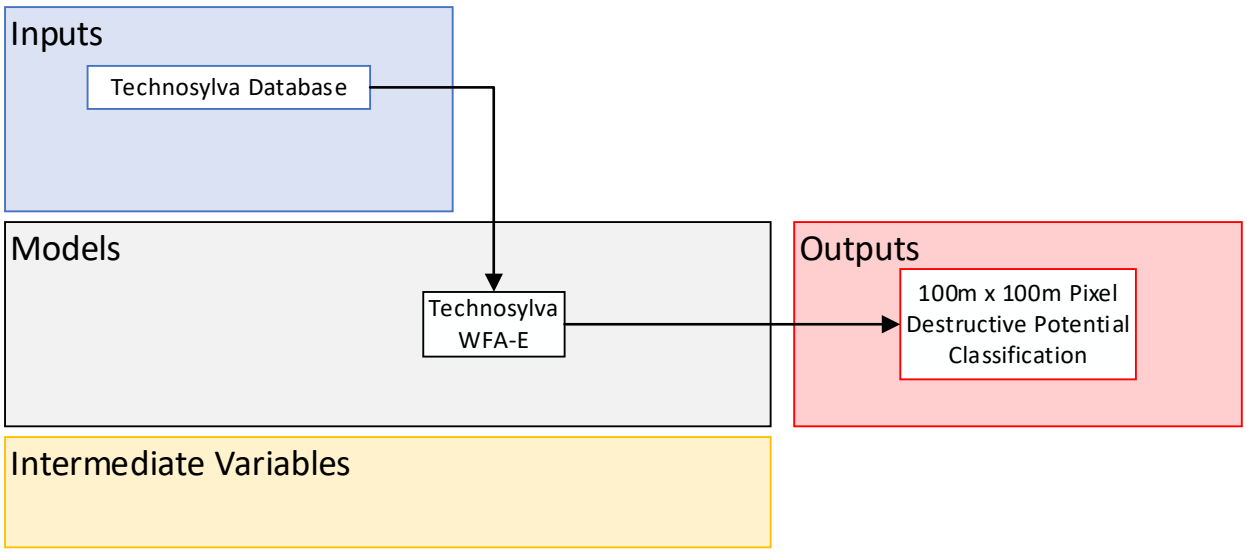
BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM and FPI in evaluating wildfire risks including wildfire hazard intensity.

B.1.13 Wildfire Exposure Potential (WEP)

High-level bow tie schematic



High-level calculation procedure schematic



High-level narrative

- *Purpose of the calculation/model*

The purpose of the model is to provide a visual tool that displays the physical, social, and economic impact of a wildfire on the people property, critical infrastructure, livelihoods, health, environmental services, local economies, cultural/historical resources, and other high-value assets. These may include direct or indirect impacts, as well as short- and long-term impacts.

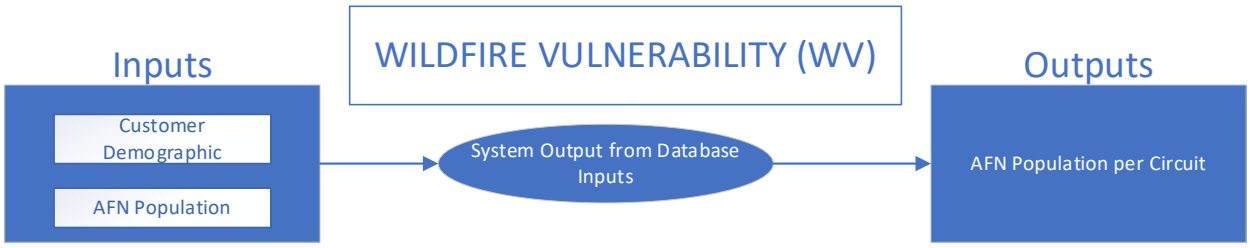
- *Assumptions and limitations*
- *Description of the calculation procedure shown in the bow tie and high-level schematics*
- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*
- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E

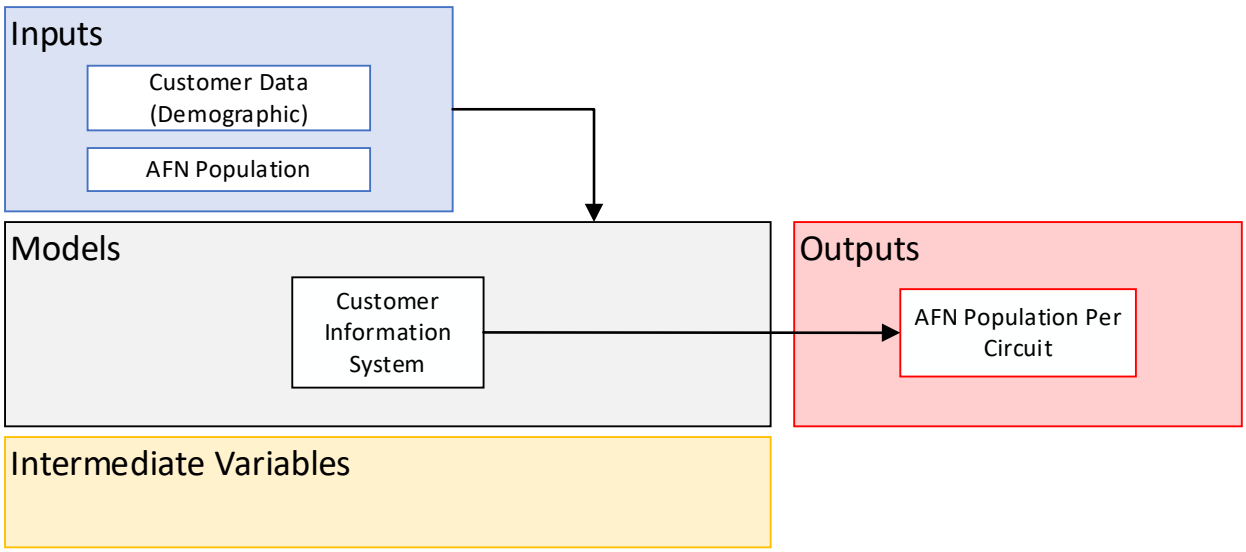
model to develop proficient model users and implement use of the WRRM and FPI in evaluating wildfire risks including wildfire exposure potential .

B.1.14 Wildfire Vulnerability (WV)

High-level bow tie schematic



High-level calculation procedure schematic



High-level narrative

- *Purpose of the calculation/model*

The purpose of this calculation is to determine the AFN population per circuit which will be used as an input in determining the Wildfire Risk for a circuit segment.

- *Assumptions and limitations*

The assumption or limitation of this risk component is that the evaluation process assumes all AFN customers have registered themselves with BVES. It is highly likely that there are customers that would fall in the AFN category that BVES is not aware of due to the need for customer action.

- *Description of the calculation procedure shown in the bow tie and high-level schematics*

BVES will evaluate the customer data and the AFN population data that is available in the Customer Information System to determine the number of AFN customers per circuit.

- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*

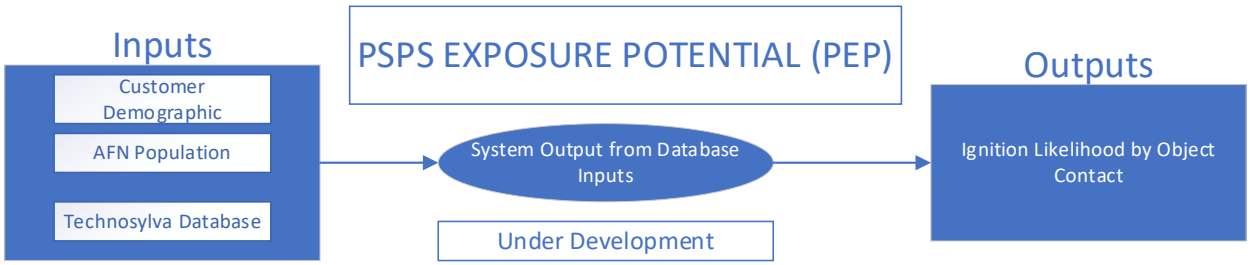
The output from Wildfire Vulnerability will be a customer's/circuit unit that will be used as a sub-component for Wildfire Risk. While the output metrics will be visible to decision makers it will primarily used in determination of Wildfire Risk.

- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

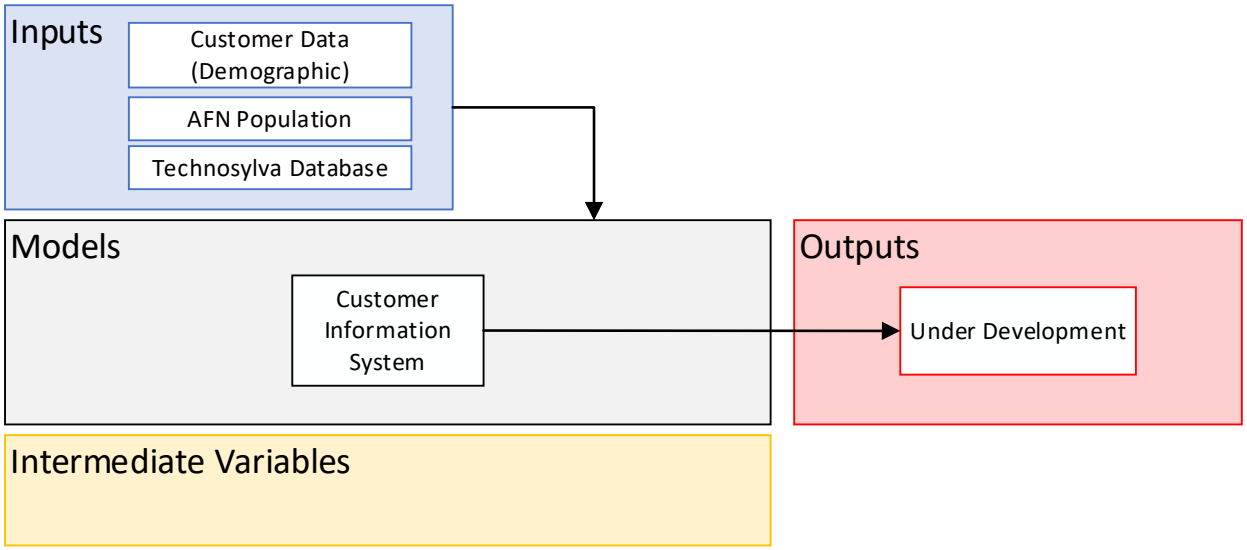
BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM and FPI in evaluating wildfire risks including wildfire vulnerability of BVES system and customers.

B.1.15 PSPS Exposure Potential (PEP)

High-level bow tie schematic



High-level calculation procedure schematic



High-level narrative

This risk component is currently in development. Additional information will be provided upon its completion.

- *Purpose of the calculation/model*

The purpose of this calculation is to determine exposure potential for AFN customers if/when a PSPS event occurs. This model takes into account PSPS Vulnerability (PV)

- *Assumptions and limitations*

The assumption or limitation of this risk component is that the evaluation process assumes all AFN customers have registered themselves with BVES. It is highly likely that there are customers that would fall in the AFN category that BVES is not aware of due to the need for customer action. There also may be additional limitations associated with database update cycles, but that has not yet been determined

- *Description of the calculation procedure shown in the bow tie and high-level schematics*

The bow tie model and high-level schematic are representative of what BVES believes the process will look like. Following the completion of the development phase an accurate model can be made available.

- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*

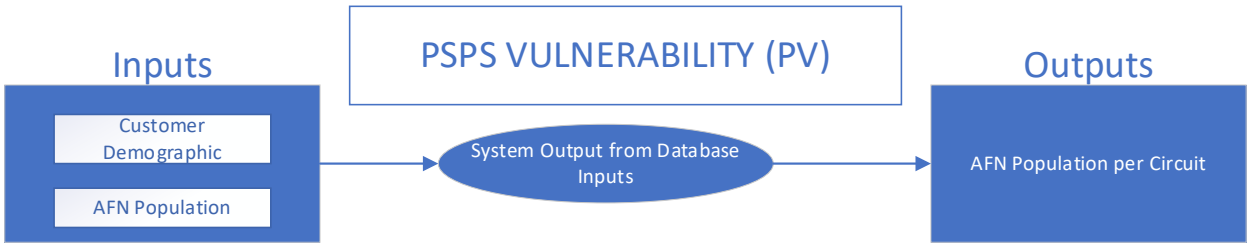
As the model is still in development BVES is not yet aware how the output will be characterized and presented to decision makers. Following the completion of the development phase BVES will have a better understanding of the output and how it can be used by decision makers in the wildfire mitigation process.

- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

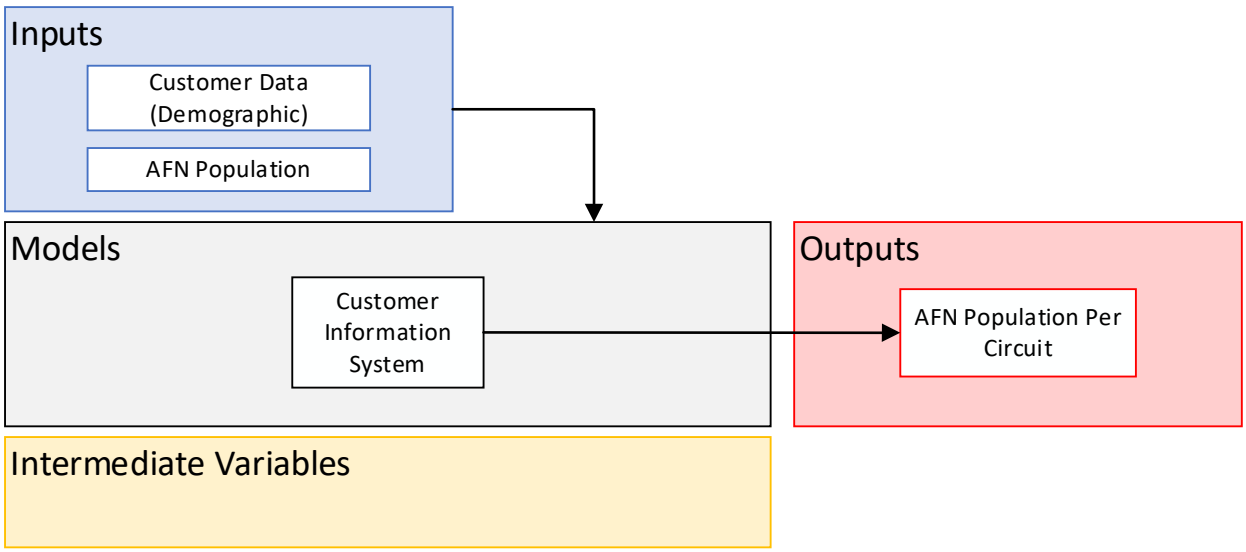
BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM and FPI in evaluating wildfire risks including wildfire vulnerability of BVES system and customers.

B.1.16 PSPS Vulnerability (PV)

High-level bow tie schematic



High-level calculation procedure schematic



High-level narrative

- *Purpose of the calculation/model*

The purpose of this calculation is to determine the AFN population per circuit which will be used as an input in determining the PSPS Risk for a circuit segment.

- *Assumptions and limitations*

The assumption or limitation of this risk component is that the evaluation process assumes all AFN customers have registered themselves with BVES. It is highly likely that there are customers that would fall in the AFN category that BVES is not aware of due to the need for customer action.

- *Description of the calculation procedure shown in the bow tie and high-level schematics*

BVES will evaluate the customer data and the AFN population data that is available in the Customer Information System to determine the number of AFN customers per circuit.

- *Description of how outputs will be characterized and presented (e.g., visualization) to decision makers*

The output from PSPS Vulnerability will be a customer's/circuit unit that will be used as a sub-component for PSPS Risk. While the output metrics will be visible to decision makers it will primarily used in determination of PSPS Risk

- *Concise description and timeline of planned changes to the calculation procedure over the triennial WMP cycle, including any key improvements from the Energy Safety Wildfire Risk Modeling Working Group and plans to align with the consensus Risk Modeling Requirements by January 1, 2024.*

BVES will review feedback from the working groups that it has been involved in including the Wildfire Risk Model Working Group and assess the need for improvements or changes. BVES plans to include more data and documentation for this risk model/component in future WMPs. Additionally, BVES plans to complete formal implementation and staff training on the WFA-E model to develop proficient model users and implement use of the WRRM and FPI in evaluating wildfire risks including PSPS vulnerability of BVES system and customers.

Figure B-1. Example Bow Tie Schematic

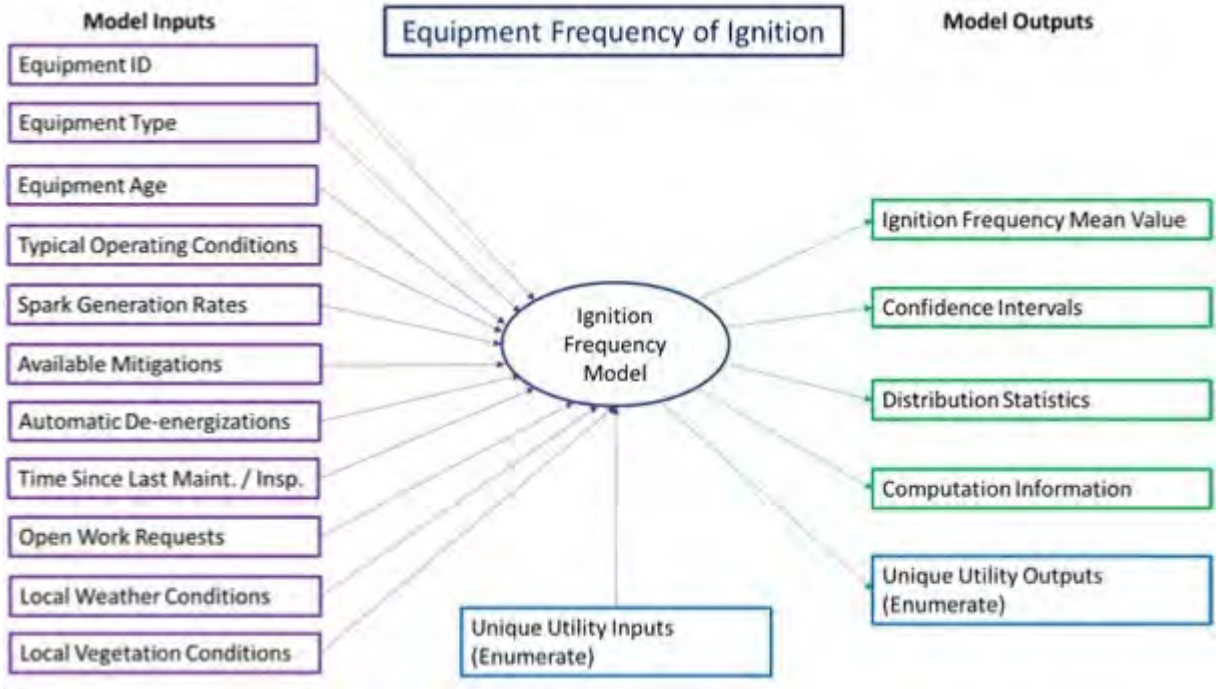
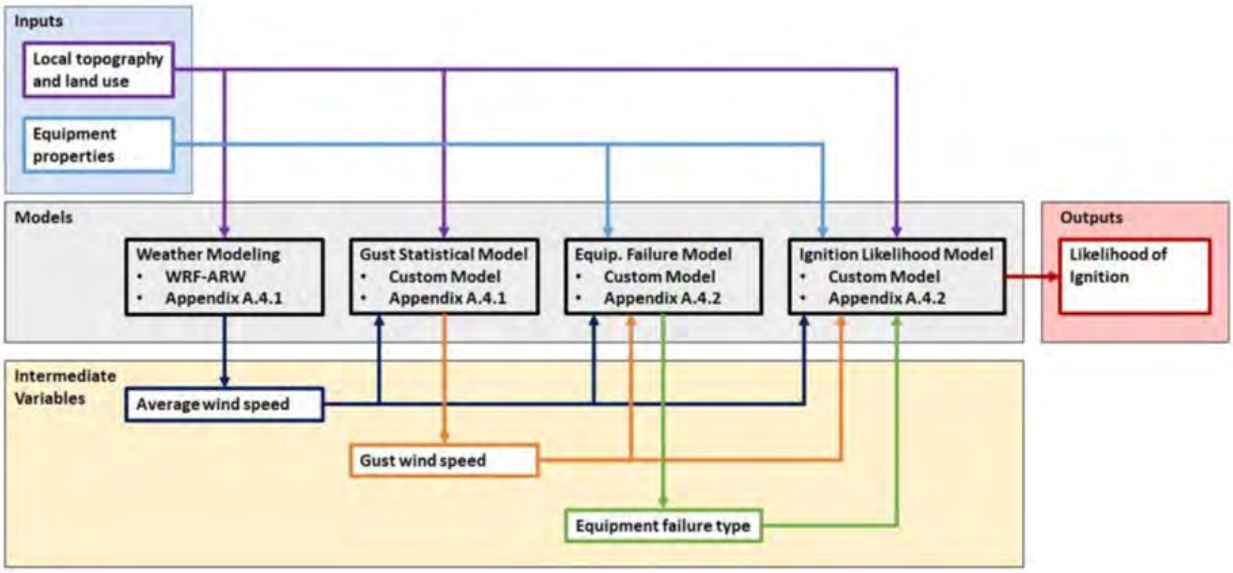


Figure B-2. Example Calculation Schematic



Appendix C. Additional Maps

In this appendix, the electrical corporation must provide the additional maps required by the Guidelines. As stated in the General Directions, if any additional maps needed for clarity (e.g., the scale is insufficiently large to show useful detail), the electrical corporation must either provide those additional maps in this appendix or host applicable geospatial layers on a publicly accessible web viewer. If the electrical corporation chooses the latter option, it must refer to the specific web address in appropriate places throughout its WMP. Additionally, the electrical corporation must host these layers until the submission of its 2026-2028 WMP or until otherwise directed by Energy Safety. The electrical corporation may not modify these publicly available layers without cause or without notifying Energy Safety.

Below is a list of the WMP Guidelines sections which require additional maps:

Section Number	Section Title
5.3.2	Fire History
5.4.3.2	Social Vulnerability and Exposure to Electrical Corporation Wildfire Risk
6.4.1.1	Geospatial Maps of Top Risk Areas within the HFRA

Section 5.3.2 Catastrophic Wildfire History

Additional Maps cannot be provided as BVES has not experienced a catastrophic wildfire to date.

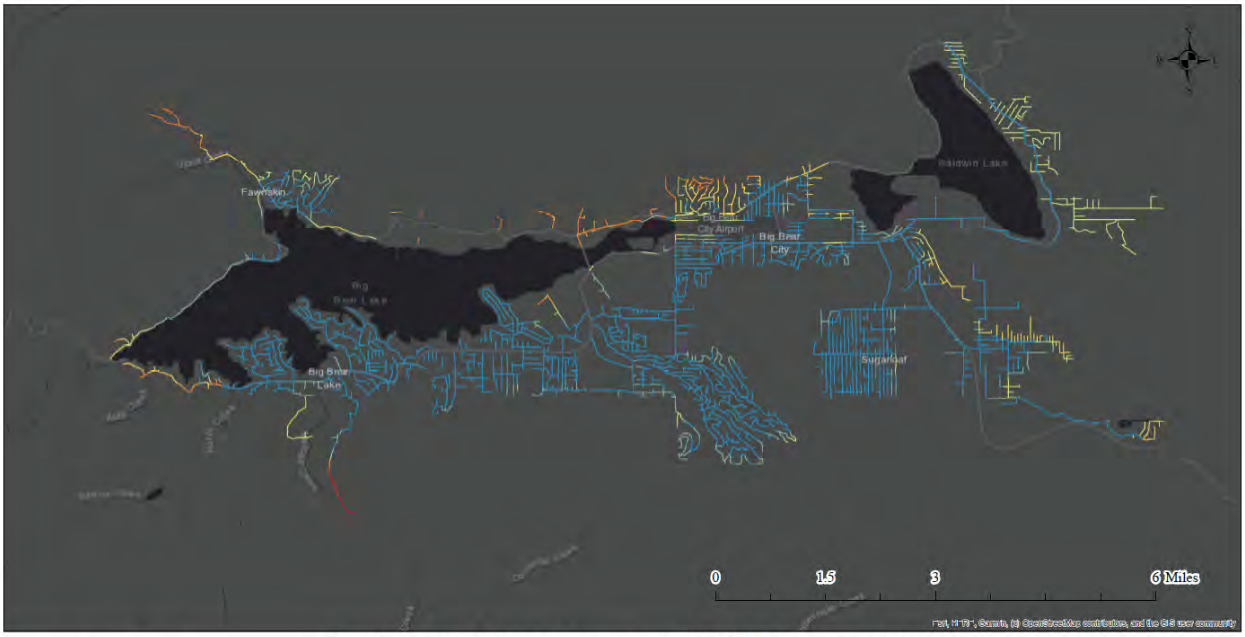
Section 5.4.3.2 Social Vulnerability and Exposure to Electrical Corporation Wildfire Risk

The map that was requested in the guidance was provide with the narrative. The detail needed is visible in its present form.

Section 6.4.1.1 Geospatial Maps of Areas with Heightened Risk of Fire

The following maps provide additional detail as requested in Section 6.4.1.1. The first two maps are the output of the in development Technosylva WRRM function. The maps with leading “REAX – “ are the result of the REAX Engineering engagement BVES conducted in 2021.

Overhead Distribution Lines Risk Attributes



Distribution Expected 2022

Expected 98th Percentile Acres Burned

- 0.00 - 1.13
- 1.13 - 3.52
- 3.52 - 7.27
- 7.27 - 12.43
- 12.43 - 24.79
- 24.79 - 44.79

Overhead Distribution Lines with WRRM Expected Risk Attributes 2022

Covered Conductor Included in Risk Calculation

BEAR VALLEY ELECTRIC SERVICE, INC.

Overhead Sub)transmission Risk Attributes

SubTransmission Expected 2022

Expected 98th Percentile Acres Burned

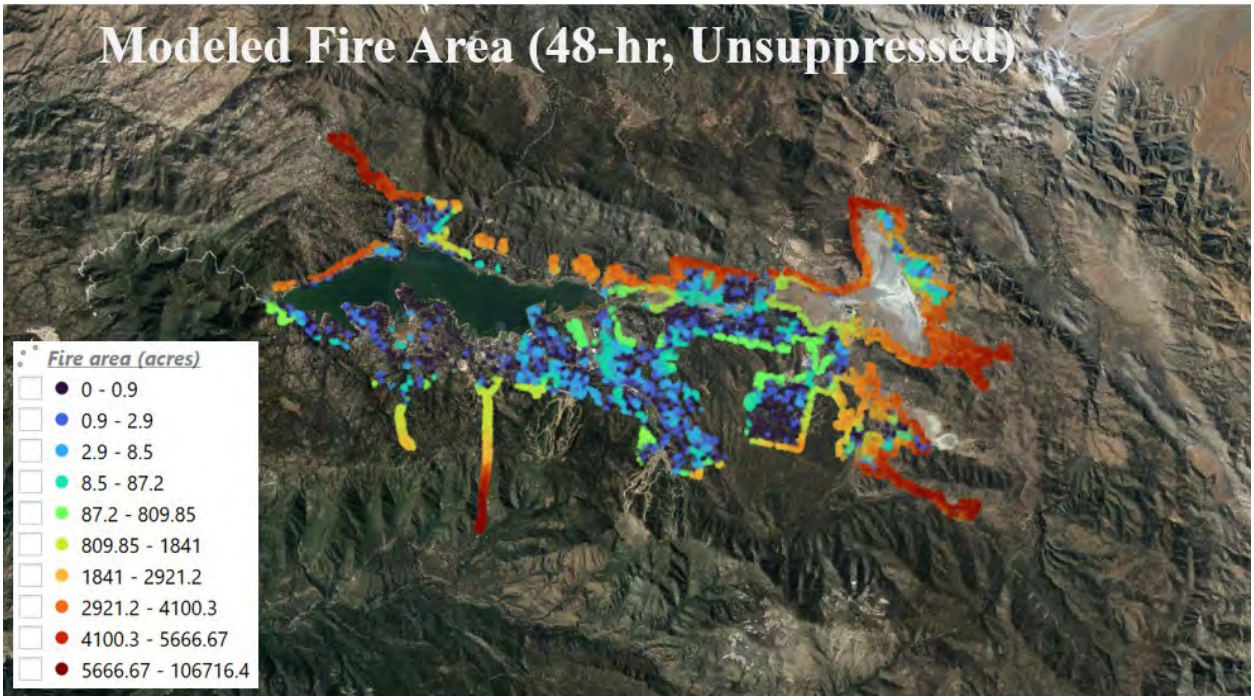
- 0.00 - 0.41
- 0.41 - 2.16
- 2.16 - 4.93
- 4.93 - 8.02
- 8.02 - 12.61
- 12.61 - 18.03

Overhead Sub-Transmission Lines with WRRM Expected Risk Attributes 2022

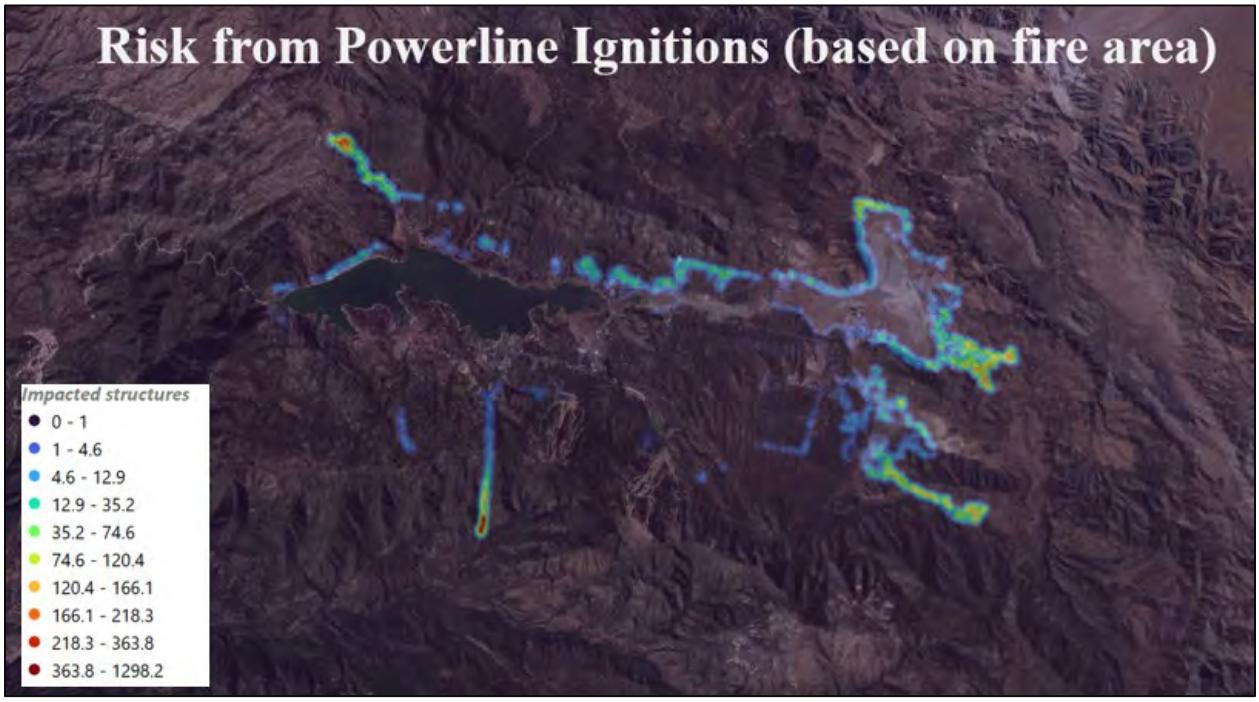
Covered Conductor Included in Risk Calculation

BEAR VALLEY ELECTRIC SERVICE, INC.

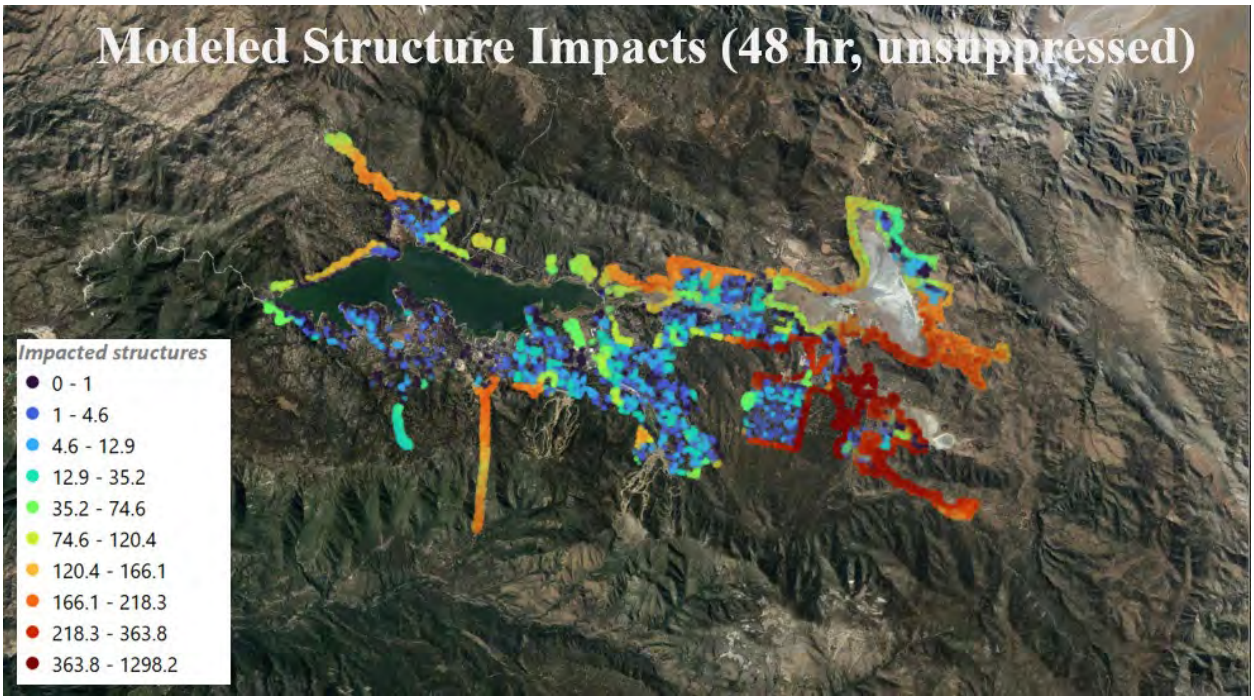
REAX - Modeled Fire Area (48-hr, Unsuppressed)



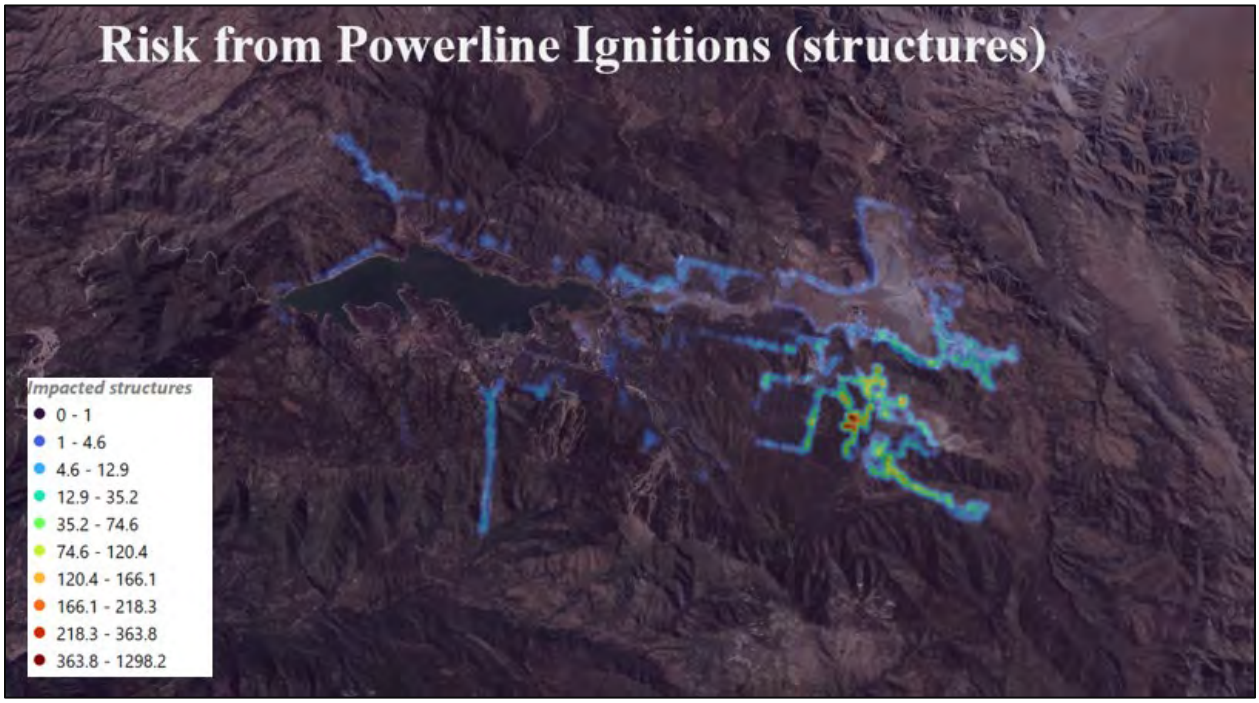
REAX - Modeled Risk from Power Line Ignitions (Based on Fire Area)



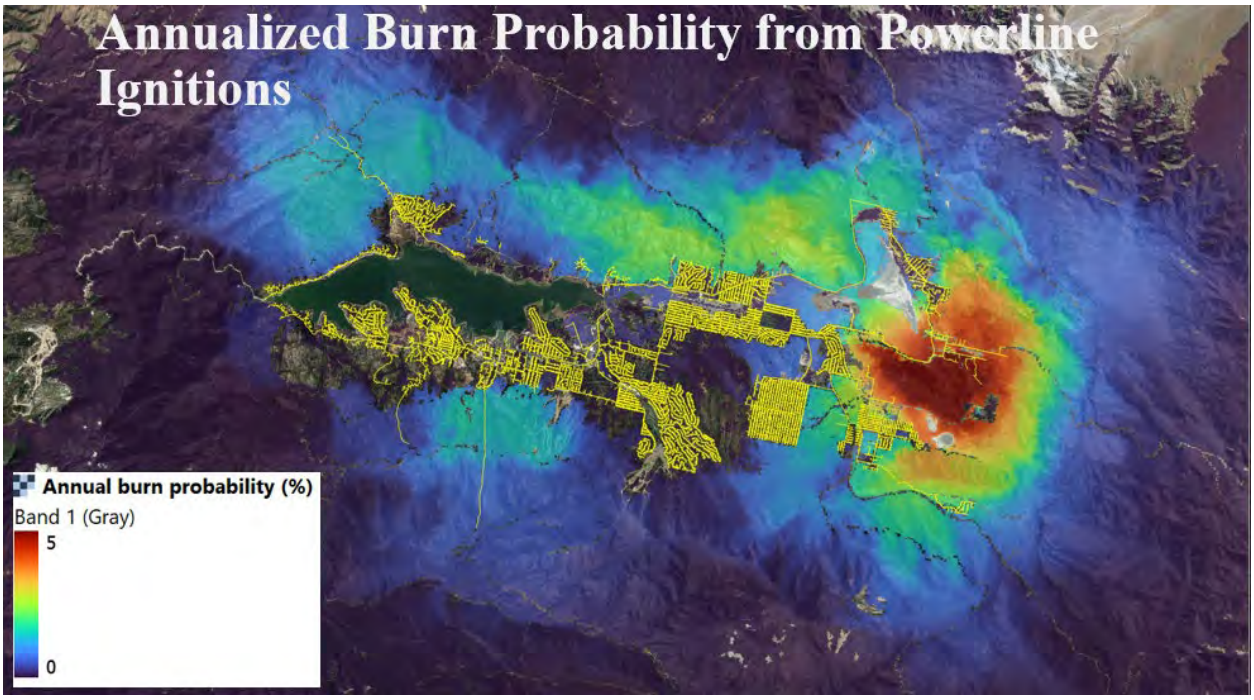
REAX - Modeled Structural Impacts (48-hr, Unsuppressed)



REAX - Modeled Risk from Power Line Ignitions (Structures)



REAX - Annualized Burn Probability from Power Line Ignitions



Appendix D. Areas for Continued Improvement

In this appendix, the electrical corporation must provide responses to its areas for continued improvement as identified in the Decisions on the 2022 WMP Updates in the following format:

Code and Title:

Description:

Required Progress:

[Electrical Corporation] Response:

BVES-22-01. Collaboration and Research in Best Practices in Relation to Climate Change Impacts and Wildfire Risk and Consequence Modeling.

Description:
While BVES includes some climate projections within its modeling, BVES does not sufficiently account for climate change in its planning.

Required Progress:
Prior to the submission of their 2023 WMPs, all electrical corporations (not including independent transmission operators) must participate in an Energy Safety-led scoping meeting to discuss how utilities can best learn from each other, external agencies, and outside experts on the topic of integrating climate change into projections of wildfire risk. They must also participate in any follow-on activities from this meeting. In addition, the climate change and risk modeling scoping meeting will identify future topics to explore regarding climate change modeling and impacts relating to wildfire risk. This scoping meeting may result in additional meetings or workshops or the formation of a working group. Energy Safety will provide additional details on the specifics of this scoping meeting in due course.

Response:
BVES has been working to integrate climate modeling into its risk assessments and risk mapping. In 2021, BVES hired Reax Engineering to deliver ignition probability and risk mapping for current and future conditions. These simulations projected likely climactic conditions for 2050 and identified fire risk and consequences from BVES's current overhead assets against the projected conditions.

In 2022, BVES employed Technosylva to produce and deliver more dynamic mapping and modeling capabilities for current, real-time, and projected conditions. This is described in detail in sections 6.1 and 6.2.

BVES-22-02. Inclusion of Community Vulnerability in Consequence Modeling.

Description:
BVES does not currently include the impacts of wildfire on communities, such as community vulnerability, within consequence modeling.

Required Progress:
Prior to the submission of their 2023 WMPs, all electrical corporations (not including independent transmission operators) must participate in an Energy Safety-led scoping meeting

to discuss how to best learn from each other, external agencies and outside experts on the topic of community vulnerability. They must also participate in any follow-on activities from this meeting. In addition, the community vulnerability scoping meeting will identify future topics to explore regarding integration of community vulnerability into consequence modeling and impacts relating to wildfire risk. This scoping meeting may result in an additional meetings or workshops or the formation of a working group. Energy Safety will provide additional details on the specifics of this scoping meeting in due course.

Response:
BVES has increased its awareness and outreach to the Big Bear community which is all vulnerable to wildfire. Additionally, BVES participates in Energy Safety-led scoping meetings. At these meetings, BVES, Energy Safety, local agencies, public safety partners, and other stakeholders to discuss and understand community vulnerability. BVES holds these meetings regularly. Following these meetings, BVES increased its understanding of community needs including its AFN and Medical Baseline Communities. This understanding has led to changes in BVES communication strategy. BVES will continue this outreach to better educate and prepare the Big Bear community in addition to the continuous improvement of Bear Valley's efforts to reduce community impacts. This is addressed in Section 5.4.3.2.

Community vulnerability is also addressed BVES's modeling inputs as described in Section 6.2.1 of the 2023 WMP Update.

BVES-22-03. Wildfire Consequence Modeling Improvements.

Description:
BVES's risk model is limited in its evaluation of wildfire spread based on timing limitations as well as suppression effects.

Required Progress:
As part of Energy Safety's final decisions on the 2022 Updates of PG&E, SCE, and SDG&E, the large IOUs are required to evaluate spread timing and suppression effects for wildfire consequence modeling. BVES must leverage these findings and implement the measures identified by the large IOUs into its consequence modeling, where appropriate. In its 2023 WMP, BVES must explain which measures it selected for implementation and provide a report on its progress.

Response:
BVES has been working with outside parties to better understand potential fire spread especially as it relates to timing and suppression effects for wildfire consequence modeling. In 2021, BVES hired Reax Engineering to produce and deliver wildfire spread modeling for current and future conditions. These simulations projected likely fire spread from different locations throughout BVES's service territory based on millions of simulations based off historical fires in the area, local climate, topography, and projected climactic.

In 2022, BVES employed Techosylva to produce and deliver more dynamic mapping and modeling capabilities for current, real-time, and projected conditions. The WFA-E product, delivered to BVES in early 2023, provides real-time risk monitoring and projects likely fire spread based upon the current conditions. Fire spread simulations can we performed in the WFA-E application at any possible ignition point along BVES's sub-transmission and distribution system. Technosylva will also deliver the WRRM tool in 2023. The WRRM will allow BVES to

simulate conditions, including extreme risk scenarios to better predict fire spread and suppression effects throughout the BVES service territory and into neighboring communities.

BVES-22-04. Integration of Consequence into Risk Assessment.

Description:
BVES has not yet integrated consequence modeling into its Fire Safety Circuit Matrix.

Required Progress:
In its 2023 WMP, BVES must:

a) Describe how BVES captures safety, reliability, financial, and environmental impacts within its consequence modeling.
b) Provide details on its integration of consequence into its modeling efforts. If BVES makes limited progress, it must include justification as well as an estimated timeline for completion.
c) Explain how integration of consequence has shifted its understanding of risk and subsequent prioritization of projects.

Response:
The Fire Safety Circuit Matrix is a great tool for identifying ignition risk by calculating the likelihood of overhead assets and equipment conditions which may lead to an ignition as they interact with the dry, forested, mountainous terrain of BVES's service territory. However, BVES determined that the Fire Safety Circuit Matrix is not the best tool to use for consequence modeling. This somewhat crude tool has served BVES well in identifying the highest risk circuits within its territory and allowing BVES to prioritize mitigation efforts along those circuits to significantly reduce the likelihood that Bear Valley equipment will spark a wildfire. The Fire Safety Circuit Matrix does not contemplate safety, beyond fire risk, nor does it include reliability, financial, and environmental impacts.

To capture consequence modeling BVES employed third-party risk modeler Reax Engineering in 2021 and Technosylva in 2022 to better understand fire likelihood and spread. Reax provided static maps that BVES used in 2022, as a lens to view and assist its prioritization efforts that included risk assumptions from the Risk Based Decision Making Framework, Fire Safety Circuit Matrix, and other sources as another data point in the initiative prioritization decision making process. The Reax products produced consequence in terms of area burned and number of structures impacted. The Technosylva applications provides consequence in terms of area burned, buildings impacted, and population impacted.

Technosylva has been able to deliver a more dynamic fire risk understanding to BVES that shows consequences based on real-time conditions. Technosylva will also providing additional dynamic projections which will help BVES gain a better understanding of projected conditions, fire potential index, and hone its PSPS activation thresholds. In turn, BVES will use these tools to better understand consequences, including safety, reliability, financial, and environmental impacts in its understanding of risk. All of these outputs will be employed by BVES to prioritize its future mitigation initiatives.

BVES-22-05. Prioritization Based on Risk Analysis.

Description:

In Table 5.3-1, BVES only calculated the cumulative top risk coverage estimates since BVES's service territory is only within HFTD Tiers.

Required Progress:
In its 2023 WMP, BVES must provide an update on its progress using risk model output to inform its initiative plans based on highest-risk areas, including determination of the riskiest areas, for all initiatives. This should include:

a) A discussion of the work completed and/or planned within the top risk ranked circuits, segments, or spans based on BVES's risk modeling.
b) An explanation of how BVES is using its internal risk-modeling outputs (including ignition and consequence risks) to inform the scope of work, location, resource allocation, and timeline/scheduling of initiatives.

Response:
BVES used its Fire Safety Circuit Matrix as its primary tool for identifying the highest risk circuits and segments by ignition risk. The outcomes from this tool were used along with inputs from the Risk Based Decision Making Framework, Risk Register, and fire models to prioritize mitigation initiatives by those that maximize the risk reduction in the most effective and efficient manner. This is described at length in Section 7.1

BVES-22-06. Fire Potential Index.

Description:
BVES does not use a Fire Potential Index (FPI) to forecast its fire potential, instead using the National Fire Danger Rating System (NFDRS).

Required Progress:
In its 2023 WMP, BVES must describe how it has explored and/or will explore the development and use of an FPI in its service territory to forecast fire potential. If BVES determines there is no value in developing its own FPI and believes the NFDRS fire potential has sufficient granularity, it must describe the analysis that was conducted to make that determination.

Response:
BVES is currently working with Technosylva to develop a Fire Potential Index (FPI) model. The development and use of the model is referenced in the WMP including in Section 6.2.2. BVES expects the completion of this effort in 2023. BVES will update the description of its FPI in the 2024 WMP Update and will begin using its outputs for in the initiative assessment and prioritization of its projects for 2025 and beyond.

BVES-22-07. Integration of SCADA with Weather Station Network.

Description:
BVES has not integrated its weather station network into SCADA.

Required Progress:
In its 2023 WMP, BVES must commit to a timeline for deciding whether or not it plans to integrate its weather stations into SCADA. If BVES determines to integrate its weather stations, it must provide a provide a timeline for development and implementation. If it does not plan to integrate its weather stations into SCADA, BVES must describe its evaluation process, including considerations and outcomes, that led to this decision.

Response:

BVES deployed 20 weather stations that can be remotely monitored between 2019 and 2022. These weather stations provide Bear Valley operations engineers a detailed understanding of weather, including microclimates, across its 32 square mile territory. Additionally, BVES employs a contract meteorologist that gathers data from the weather stations and the National Weather Service and integrates them with the National Fire Danger Rating System (NFDRS) to give BVES a detailed understanding of the current and projected weather affecting BVES. Forecasts are provided daily during the fire season and may be produced more frequently if BVES is facing fire threats or may be approaching its PSPS thresholds. Because the weather stations have their own server and application, BVES has decided that integrating the weather station data into SCADA is not necessary and would in fact clutter the SCADA displays. The weather station application displays the weather at each station in a summary view and allows the user to drill down to each weather station individually for additional information. Additionally, the application is set up to provide email/text alarms to key staff at certain trigger wind speeds. Finally, all of the weather data is captured on the weather station server. Therefore, weather stations will not be integrated into SCADA.

BVES-22-08. Apply Joint Lessons Learned Concerning Covered Conductor.

Description:

BVES has not yet provided goals or timelines for implementing lessons learned from the covered conductor effectiveness joint study.

Required Progress:

In its 2023 WMP, BVES must:

a) Provide a list of goals with planned dates of implementation for any lessons learned from the covered conductor effectiveness joint study.
b) Provide a table indicating which WMP sections include changes (compared to its 2021 and 2022 Updates) as a result of the covered conductor effectiveness joint study. This should include, but not be limited to:
    - Changes made to covered conductor effectiveness calculations.
    - Changes made to initiative selection based on effectiveness and benchmarking across alternatives.
    - Inclusion of rapid earth fault current limiter (REFCL), open phase detection (OPD), early fault detection (EFD), and distribution fault anticipation (DFA) as alternatives, including for PSPS considerations.
    - Changes made to cost impacts and drivers.
    - An update on data sharing across utilities on measured effectiveness of covered conductor in-field and pilot results, including collective evaluation.

Response:

a) BVES applies any lessons learned from its covered conductor program throughout the progression of the program, collecting information on supply logistics, pole replacements necessary to support covered wire installation, and covered wire installation work techniques and rates in order to optimize the program execution. As part of the project, BVES will install utility fiber cable and will use this for future system monitoring efforts (cameras, infrared sensors, system diagnostics sensors, etc.) and for fast acting switches on the circuit.

    BVES also participates in the joint utilities workshop on covered wire and will continue to exchange information in this area with other utilities. BVES also attends T&D

conferences and review T&D literature and periodicals on the latest in covered wire operations and maintenance.

b) BVES discusses all aspects of its covered conductor program in section 8.1.2.1.

	Change in Covered Conductor Effectiveness Calculation	Changes to initiative selection based on effectiveness/ benchmarking across alternatives	Inclusion of REFCL, OPD, EFD, and DFA as alternatives including PSPS considerations*	Changes to Cost Impacts and Drivers	Update on data sharing across utilities on measured effectiveness of covered conductor
2023 WMP Update	Section 8.1.2.1	Section 8.1.2.1	N/A	Section 8.1.2.1	Section 8.1.2.1

*Currently, BVES does not have plans for inclusion of rapid earth fault current limiter (REFCL), open phase detection (OPD), early fault detection (EFD), and distribution fault anticipation (DFA) as alternatives, including for PSPS considerations. As these technologies mature, BVES will consider them.

BVES-22-09. Determine Best Practices for Covered Conductor Inspection and Maintenance.

Description:
BVES lacks specific directives for inspection procedures regarding covered conductor inspection and maintenance.

Required Progress:
All electrical corporations (not including independent transmission operators) must work to share and determine best practices for inspecting and maintaining covered conductor, including either augmenting existing practices or developing new programs. This should be considered as a continuation of the covered conductor effectiveness joint study established by Energy Safety's 2021 WMP Action Statements. The study will continue to be utility-led, with the expectation for Energy Safety to be included as a participant. A report on progress on this continuation of the covered conductor effectiveness joint study will be expected in the 2023 WMPs.

Response:
BVES attends the Covered Conductor Working groups and was also one of the utilities that took part in commissioning a joint study to assess the effectiveness and reliability of covered conductors (CCs) for overhead distribution system hardening. From the working groups and study the following ongoing outcomes have been determined:

- CCs are a mature technology (in use since the 1970s) and have the potential to mitigate several safety, reliability, and wildfire risks inherent to bare conductors. This is due to the reduced vulnerability to arcing/faults afforded by the multi-layered polymeric insulating sheath material.
- Of the 10 hazards that affect bare conductors, CCs have the potential to mitigate six (tree/vegetation contact, wind-induced contact, third-party damage, animal-related damage, public/worker impact, and moisture).
- Laboratory studies and field experience have shown that CCs largely mitigated arcing due to external contact.

- Several CC-specific failure modes exist that require operators to consider additional personnel training, augmented installation practices, and adoption of new mitigation strategies (e.g., additional lightning arrestors, conductor washing programs).

This information is presented in Table 8-63 of this year's WMP.

BVES-22-10. Failure to Demonstrate Installation of Covered Conductor in Highest-Risk Areas.

Description:
BVES continues to tie identification of highest-risk areas to HFTD tier designations and does not provide direct correlations of highest-risk areas with covered conductor project location selection.

Required Progress:
In its 2023 WMP, BVES must:

a) Demonstrate how BVES's risk modeling informs its prioritization of projects based on sequencing of risk ranking relating to ignition and consequence risk.
b) Provide a ranked list of BVES's circuit segments based on risk analysis performed.
c) Provide BVES's analysis on alternative initiatives compared to covered conductor, including effectiveness of risk reduction for BVES's covered conductor program scope.

Response:
Due to BVES HFTD Tier designations, it has set the goal to replace the entire 34.5 kV system with covered wire by 2026, and the entire 4 kV system by 2032. BVES continues to prioritize the highest risk circuits (Table 7-2) in its covered conductor replacement program specifically Radford, which it has created its own wildfire mitigation initiative for. Due to the location of the Radford line, and requirements set forth by the US Forest Service, the program has been delayed, but work on other high-risk circuits in BVES service territory have continued. Last year BVES was able to complete 12.96 circuit miles of replacement.

BVES-22-11. Pole Replacements Aggregated with Covered Conductor.

Description:
BVES's pole replacement program as it relates to wildfire risk is integrated into its covered conductor program and does not describe how BVES identifies and prioritizes pole replacements outside of covered conductor installation.

Required Progress:
In its 2023 WMP, BVES must:

a) Disaggregate its pole replacement program to include targeted replacements to address known wildfire risk, including egress/ingress issues; OR
b) Demonstrate that complete aggregation of its covered conductor and pole replacement programs provides the most cost/benefit efficiency.

Response:
BVES does not believe that the statement "complete aggregation" accurately reflects its efforts on Distribution Pole Replacement and Reinforcement. While a large number of the poles that are reinforced or replaced are directly related to the covered conductor replacement programs BVES replaces or reinforces poles in its service territory that pose a risk to utility operations and

wildfire risk. BVES's asset inspection program is used to identify poles that require replacement or remediation. BVES has continued its efforts on its Pole Assessment Program and reinforces or replaces poles that fail assessment. BVES also replaces pole as part of its evacuation route hardening efforts. This has led to numerous pole replacements outside of the covered conductor program. This is described in Table 8-3 and Section 8.1.2. BVES has also begun to track the financials of the Distribution Pole Replacement and Reinforcement as separate line items in Table 11 of the 2023 QDR.

BVES-22-12. Exploration of New Technologies.

Description:
BVES's WMP lacks discussion of exploration, piloting, and monitoring of new technologies, such as DFA, EFD, and REFCL.

Required Progress:
In its 2023 WMP, BVES must:

a) Explain BVES's process for monitoring pilot programs being performed by IOUs, including BVES's plan and criteria on how and when to decide which technologies to select.
b) Provide an update on BVES's exploration of technologies being explored by IOUs, including DFA, EFD, and REFCL. This should detail why and how BVES is moving forward with any such technologies.

Response:
BVES does not currently have any pilots or deployments of DFA, EFD, or REFCL technologies underway. BVES continues to monitor and evaluate other utilities experiences with these technologies. If the benefit of such technologies become cost effective BVES will develop a pilot. These technologies will also be more useful to BVES after it completes its grid automation programs described in Section 8.1.2.10.

BVES-22-13. Demonstration of QA/QC Progress for Asset Inspections.

Description:
BVES does not provide adequate details demonstrating use of a formal QA/QC program for its asset inspections, including documentation of its processes and results.

Required Progress:
In its 2023 WMP, BVES must:

a) Describe the processes for its QA/QC of asset inspections, including supporting documentation of procedures.
b) Provide the results of the QA/QC of its asset inspections performed in 2022.
c) Provide quantitative targets for BVES's QA/QC of asset inspections (such as pass rates per quarter).
d) Demonstrate how BVES documents and performs corrective actions based on QA/QC results and associated programmatic lessons learned.

Response:
BVES continues to mature its QA and QC programs. BVES addresses all of the Required Progress items in Section 8.1.6. These programs are further described in the BVES Asset and Inspection Quality Management Plan which is submitted as an attachment to its 2023 WMP submission.

BVES-22-14. Decline in Pole Loading Assessments.

Description:
BVES is closing out its pole loading assessment program in 2023, despite high failure rates during the assessments completed in 2020 and 2021.

Required Progress:
In its 2023 WMP, BVES must:

a) Provide justification for why BVES is planning to close out its pole loading assessment program in 2023, including supporting data.
b) Describe the results of the pole loading assessments completed from 2020 to 2022, including analysis on trends for number and types of failures found.

Response:
BVES is not closing out its Pole Loading and Assessment Program in 2023, it is simply merging the program with its covered wire program and asset inspection program. BVES's pole loading assessment program is described in Sections 8.1.2 and 8.1.3 of the WMP. BVES plans to perform 850 intrusive inspections in 2023 and conducted 853 in 2022.

BVES performed analysis on pole assessments. In the first table, the analysis looked are poles that were assessed via stress analysis (3D stress analysis SPIDAcalc).

Total Number of Poles That had Stress Calculations on Them	Total Number of Poles with a Safety Factor ≥ 3.5	Total Number of Poles with a Safety Factor ≥ 3.0 and < 3.5	Total Number of Poles with a Safety Factor ≥ 2.67 and < 3.0	Total Number of Poles with a Safety Factor ≥ 2.0 and < 2.67	Total Number of Poles with a Safety Factor ≥ 1.0 and < 2.0	Total Number of Poles with a Safety Factor < 1.0
1619	788	151	122	217	292	49

BVES also looked at a data set of poles that were assessed visually and via intrusive inspection.

Total Number of Poles That Had Intrusive Test Performed on Them	Total Number of Poles Failed Assessment	Total Number of Poles Requiring Replacement	Total Number of Poles Requiring Remediation	Failure Modes			
				Stress Calculation Fail	Internal Rot (Intrusive Fail)	Uncorrectable GO-95 Discrepancy	Other (70 Year old + , Car Hit Pole)
1780	95	49	46	76	72	11	3

BVES-22-15. Effectiveness of Various Asset Inspection Initiatives.

Description:

BVES is conducting multiple types of additional inspections but has not provided data demonstrating justification and effectiveness of these initiatives.

Required Progress:
In its 2023 WMP, BVES must:

a) Include a list of the data being tracked to measure effectiveness across asset inspection initiatives (third-party ground patrols, light detection and ranging (LiDAR), unmanned aerial vehicle (UAV) imagery, UAV thermography, etc.).
b) Describe BVES's findings based on the data provided in (a), including lessons learned on the scale and scope of these programs moving forward.
c) Provide any best practices and lessons learned gathered from other utilities regarding asset inspections that BVES has implemented.

Response:
The entirety of BVES's asset inspection program is described in detail in Section 8.1.3 of the 2023 WMP. This includes a description of prompts a), b), and c) above.

The following tables illustrate the effectiveness of the additional inspections.

LiDAR						
Year	Number of Circuit Miles Inspected	Number of Possible Findings	Number of Actual Findings	Number of Actual Level 1 Findings*	Number of Actual Level 2 Findings*	Number of Actual Level 3 Findings*
2019	211	8430	4615	96	1709	2810
2020	211	1920	748	50	301	397
2021	211	508	509	13	133	363

*Finding level as defined in Rule 18 of GO-95.

UAV HD Photography/Videography						
Year	Number of Circuit Miles Inspected	Number of Possible Findings	Number of Actual Findings	Number of Actual Level 1 Findings*	Number of Actual Level 2 Findings*	Number of Actual Level 3 Findings*
2021	211	952	235	1	6	228

*Finding level as defined in Rule 18 of GO-95.

UAV HD Thermography						
Year	Number of Circuit Miles Inspected	Number of Possible Findings	Number of Actual Findings	Number of Actual Level 1 Findings*	Number of Actual Level 2 Findings*	Number of Actual Level 3 Findings*
2021	211	25	25	0	0	25

*Finding level as defined in Rule 18 of GO-95.

3rd Party Ground Patrol						
Year	Number of Circuit Miles Inspected	Number of Possible Findings	Number of Actual Findings	Number of Actual Level 1 Findings*	Number of Actual Level 2 Findings*	Number of Actual Level 3 Findings*
2019	211	NA	416	0	0	416
2020	211	NA	397	0	0	397
2021	211	NA	228	1	6	221

*Finding level as defined in Rule 18 of GO-95.

BVES-22-16. Vegetation Management Quality Control Personnel Qualifications.

Description:

BVES staff who perform vegetation management QC checks have limited direct experience in arboriculture or forestry, other than performing BVES's QC checks.

Required Progress:
BVES must:

a) Consider alternative staffing for its vegetation management QC checks, including considering employing or contracting with certified arborists or registered professional foresters to perform these checks.
b) In its 2023 WMP, report on how it considered alternative staffing for vegetation management QC checks and any resulting action it has taken or will take.

Response:
The objective of BVES's vegetation management QA/QC program is to promote consistent and effective vegetation management action by establishing an oversight and audit process to review the work completed by employees or contractors, including packaging QA/QC information for input to decision-making and workforce management processes. This initiative includes the identification and actionable outcomes of deficiencies and inspection protocols executed in the field. This will support improvement of work outcomes, training of personnel involved in vegetation management, and applying lessons learned from internal and external evaluations and audits.

In 2023, BVES aims to continue to execute vegetation management QC per its vegetation management QC procedures. In 2022, BVES set a QC target to conduct 72 QC reviews, more specifically 18 QC reviews per quarter. BVES selected 72 as its annual target based off of its qualified staff availability (6 individuals conducting at minimum 1 QC review a month) and wanting to maintain regularity of review. QC reviews are to be conducted by qualified staff designated in the BVES vegetation management procedures manual. Quarterly audits will be conducted by the Wildfire Mitigation and Reliability Engineer, and the annual program audit by the contracted Forester (BVES staff qualifications are discussed in Section 8.2.7).

BVES's has significantly improved its QA/QC effort over the past two years. These practices are described in detail in Section 8.2.5.

BVES-22-17. Participate in Vegetation Management Best Management Practices Scoping Meeting.

Description:

Vegetation management processes and protocols for the reduction of wildfire risk are not uniform across electrical corporations.

Required Progress:
Prior to the submission of their 2023 WMPs, BVES and all other electrical corporations (not including independent transmission operators) must participate in an Energy Safety-led scoping meeting to discuss how utilities can best learn from each other and future topics to explore regarding vegetation management best management practices for wildfire risk reduction. BVES must also participate in any follow-on activities to this meeting. This vegetation management

best management practices scoping meeting may result in additional meetings or workshops or the formation of a working group. Energy Safety will provide additional details on the specifics of this scoping meeting later in 2022.

Response:

BVES has participated in EnergySafety-led scoping meetings to discuss how utilities can best learn from each other and future topics to explore regarding vegetation management best management practices for wildfire risk reduction. BVES has also participated in all follow-on activities to the scoping meetings. Best practices adopted by BVES are highlighted in Table 8-12 and described throughout Section 8.2, particularly 8.2.1.

BVES-22-18. Updates on Protective Device Settings.

Description:

BVES does not currently implement changes to protective device settings, such as fast-trip or fast-curve settings.

Required Progress:
In its 2023 WMP, BVES must:

a) Include its timeline for exploration of sensitivity changes to protective device settings.
b) Provide an update on its progress towards exploring sensitivity changes to protective device settings, including findings from coordination studies and details on any changes made to settings, if applicable.

Response:
BVES's protective curve settings are always set to the fast trip settings and are not adjusted throughout the year. It is BVES's belief that its ability to always operate under this setting and still provide reliable power to its customers removes the need to explore sensitivity changes to its protective device settings. BVES uses the following protocols based off time of year and associated fire threat:

- From approximately November 1st through March 31st, the system is focused on safety and reliability and devices are set as follows:
    - All fuse TripSavers fuses are set to three trips to lockout.
    - All auto-reclosers are set to three trips to lockout.
    - Radford 34.5kV line is energized and its recloser set to three trips to lockout.

- From approximately April 1st through October 31st, BVES adopts a more defensive operational scheme during the non-winter months. To accomplish this, the utility enacts the following operational settings:
    - All TripSavers fuses are set to non-reclosing.
    - All auto-reclosers are set to non-reclosing.
    - Radford 34.5 kV line is de-energized.

BVES-22-19. Reporting of Data Management Systems.

Description:
BVES has not fully described its data management systems and planned improvements in accordance with the WMP Guidelines.

Required Progress:
In its 2023 WMP, BVES must provide detailed descriptions of its existing data systems, integration, and planned upgrades, in the following sections:

- Section 8.1.5, “Asset Management and Inspection Enterprise System”
- Section 8.2.4, “Vegetation Management Enterprise System”
- Section 8.3.2, “Environmental Monitoring Systems”
- Section 8.3.3.5, “Grid Monitoring Enterprise System”
- Section 8.3.4.5, “Ignition Detection Enterprise System”
- Section 8.3.5.5, “Weather Forecasting Enterprise System”

In general, the 2023-2025 WMP Technical Guidelines require the electrical corporations to describe the parameters of each enterprise system for data management, including inputs, data storage, integration with other systems, and any planned updates. Each section above has slightly different requirements, tailored to the system being discussed. Considering the identified need for improvement in data governance reporting, BVES must avoid providing only general information and describe each system in detail.

Response:
BVES made significant progress in migrating its many databases, which were mostly in spreadsheets, to a centralized geographic data repository. BVES engaged the support of a consultant to identify gaps and make recommendations for methods to address its GIS process and to immediately update the records in the required format. This initiative resulted in developing a common data definition, increase digitization of field work activities, and update system interfaces to automate data flow into GIS for Energy Safety reporting. Using the Energy Safety GIS Data Reporting Requirements and Schema as a guide, initial data governance steps were taken to define the system of record and assessing initial data quality for each of the required feature datasets in the OEIS schema.

BVES’s 2023 WMP Section 8.1.5 (especially Table 8-2) provides additional detail per the Continued Improvement Guidance was provided in the Sections referenced above. BVES, as stated in its 2022 WMP, was transitioning to the use of a software system (iRestore) from its existing excel based methods. BVES is currently in use as both its Asset Management and Inspection Enterprise System as well as Vegetation Management Enterprise System.

BVES-22-20. Updating Decision-Making Process.

Description:
BVES’s current decision-making process for initiative selection is linear and does not adequately demonstrate where and how BVES considers risk and risk-spend efficiencies (RSEs) in its project selection.

Required progress:
In its 2023 WMP, BVES must:

a) Provide a more dynamic decision-making flow chart that considers “if-then” scenarios and more accurately demonstrates considerations across different initiatives, as well as lessons learned.
b) Provide more details on how risk reductions and RSEs are weighted within the decision-making process, including details on how both are considered for actual project selection.

Response:

This topic is addressed and thoroughly discussed throughout Sections 6 and 7 of the 2023 WMP.

BVES-22-21. Improving Stakeholder and Community Engagement.

Description:
BVES lacks a plan for improving the effectiveness of its stakeholder and community engagement efforts.

Required Progress:

In its 2023 WMP, BVES must provide a plan that includes, but need not be limited to, the following components:

a) Strategies for developing partnerships with organizations representing Native American, limited English proficiency, MBL, and AFN communities.
b) Actions planned to improve community-level awareness of BVES wildfire mitigation and PSPS strategies.
c) The most recent community awareness survey results, target benchmarks for improving the level of community awareness, and a timeline for reaching those benchmarks.

Response:

Following the continued improvement guidance received in its 2022 WMP Decision, BVES entered into a confidentiality agreement to share BVES's AFN and Medical Baseline population with City of Big Bear Lake and the local fire agencies in an effort to strength its ability to represent and provide the resources needed for its Native American, limited English proficiency, and AFN communities. In conjunction with this partnership BVES also made available via its website an information bifold in other top identified languages such as French, Tagalog, Vietnamese, and Chinese, as well as languages spoken by indigenous communities, such as Mixteco and Zapoteco. BVES also conducted a non-contact electronic survey regarding its WMP in 2022, with a total of 423 survey responses including 30 form critical customers. Additional efforts related to BVES efforts to improve the effectiveness of its stakeholder and community engagement efforts can be found in Sections 8.5 and 9.2 of the WMP.

BVES-22-22. Describe How PSPS Planning Is Evolving.

Description:
BVES's 2022 Update does not fully describe how it will evolve its PSPS planning beyond 2022.

Required Progress:
In its 2023 WMP, BVES must continue to apply up-to-date capabilities, protocols, and lessons learned from exercises and other utilities and incorporate them into an annually updated PSPS plan.

Response:
BVES's PSPS planning continues to evolve. In 2022, BVES performed its first functional exercise in addition to its annual tabletop exercise. These exercises helped identify weaknesses in the familiarity of the PSPS Plan and communication challenges.

BVES also updated its PSPS Plan in 2022 to include all of the Phase 3 elements required by the Public Commission and took that opportunity to streamline and reorganize its PSPS Plan.

The revised plan is more focused and actionable and includes clear roles, responsibilities, actions, and objectives.

In 2023, with the help of Technosylva's WFA-E, BVES will enhance its modeling capabilities to help attenuate its PSPS thresholds to maximize wildfire safety and minimize service disruptions to its customers.

BVES-22-23. Commit to Short-Term PSPS Reduction Targets.

Description:
BVES's 2022 Update does not fully describe quantified short-term PSPS reduction commitments and mitigation initiative targets either in Table 11 or in Section 8.

Required Progress:
In its 2023 WMP, BVES must provide quantifiable risk reduction projections of potential need for and potential frequency, scope, and duration of PSPS events during the plan term, including timelines for achieving these reduction projections. Energy Safety expects that BVES will be able to more fully quantify this information as it deploys its risk consequence modeling capability in 2023.

Response:
BVES has not had a PSPS event to date. In its 2023 WMP BVES incorporated PSPS risk reductions by program year for its Covered Conductor Program to provide more detail to the risk reduction efforts directly associated with PSPS. BVES is also using Technosylva's WFA-E model daily which provides an outlook of Fire Risk and Area Size and will be used during Fire Season to aid in the evaluation of PSPS need.

Appendix E. Referenced Regulations, Codes, and Standards

In this appendix, the electrical corporation must provide in tabulated format a list of referenced codes, regulations, and standards. An example follows.

Name of Regulation, Code, or Standard	**Brief Description**
Public Utilities Code section 8386	Statute related to electrical lines and equipment.
Public Utilities Code section 768.6	Statute related to emergency and disaster preparedness plans.
Public Resources Code section 4292	Statute related to firebreaks near a utility pole.
R.20-07-013	Regulation related to risk-based decision-making framework used to minimize safety risks.
R.15-06-009	Regulation related to a response to an attack on the system.
D.19-04-020	Decision related to sharing the safety performance metrics reports that document the previous year's data with the Commission.
D.17-12-024	Decision related to regulations to enhance fire safety, such as Fire-Threat Maps.
D.21-05-019	Decision related to emergency and disaster preparedness plans and notification/reporting of electric service outages.
D.21-06-034.53	Decision related to de-energization of power lines in dangerous conditions.
General Order 95	Standards for Overhead Electric Line Construction.
General Order 128	Standards for Construction of Underground Electric.
General Order 165	Standards for electric distribution and transmission facilities.
General Order 166	Standards for Operation, Reliability, and Safety during Emergencies and Disasters.
General Order 174	Standards for Electric Utility Substations
Title 14 section 29200	Regulation regarding a record's "confidential designation".

Appendix F.

Bear Valley Electric Service, Inc.

Emergency & Disaster Response Plan

March 31, 2022

Approved by: _____

Paul Marconi, President, Treasurer, & Secretary

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1. **Purpose and Introduction.** The Emergency & Disaster Response Plan (EDRP) is provided to all Bear Valley Electric Service, Inc. ("BVES") employees to ensure an efficient, effective and uniform response during an emergency situation. BVES recognizes the importance of an integrated EDRP in order to safely provide for the energy needs of our customers and the requirements of our stakeholders in the event of an emergency.

The EDRP outlines BVES' philosophy and procedures for managing major emergencies that may disrupt electric service to our customers or threaten the health and safety of the people in the communities we serve. The EDRP further establishes the structure, processes and protocols for the BVES's emergency response and identifies departments and individuals that are directly responsible for that response and critical support services. In addition, it provides a management structure for coordination and deployment of the essential resources necessary for the response.

The EDRP is designed to provide a framework for managing and responding to:

- Large outages
- Numerous smaller outages
- Potential for large outages
- Potential for numerous smaller outages
- Any combination of the above

The EDRP may be invoked as a precautionary measure when there is a strong potential for outages or in response to actual outages. The EDRP is designed to be implemented as needed in conjunction with other procedures, plans, and policies such as:

- Public Safety Power Shutdown Plan
- Wildfire Mitigation Plan
- Field Operations and Engineering Procedures
- Customer Service Procedures
- Other organizations such as State, County, and City Emergency Disaster Plans

The EDRP complies with the requirements set forth in the Public Utilities Commission of the State of California's General Order No. 166, Standards for Operation, Reliability, and Safety during Emergencies and Disasters.

1.1. **Plan Goals.** When an emergency occurs, BVES' response actions are guided by the following overriding emergency goals (in order of priority):

- **Safety:** Protect the life-safety of our customers, employees and the general public.
- **Restoration of Power:** Restore electric service to customers in a safe and timely manner.
- **Communications:** Keep customers, stakeholders, and staff informed.

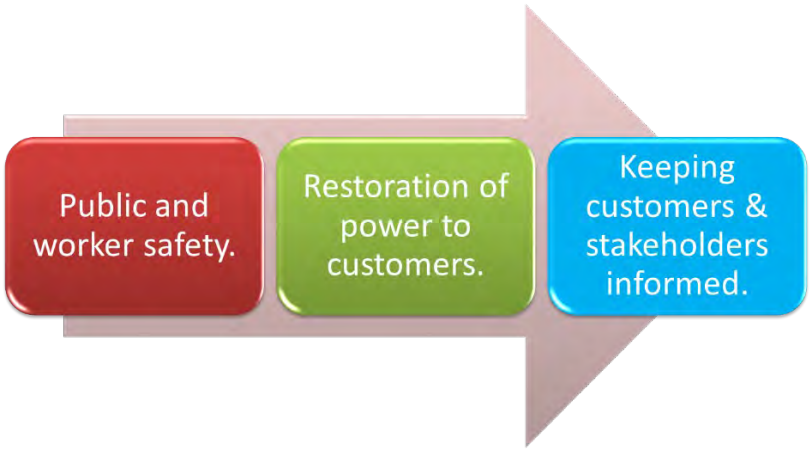


Figure 1-1: EDRP Goals

1.2. **Plan Vision.** BVES strives to meet customer needs through effective risk assessment, mitigation, preparedness, response and communications. Our vision is to achieve excellence in emergency management performance.

1.3. **Plan Policy.** BVES strives to utilize effective emergency management principles that enhance the BVES's ability to provide safe and reliable electric power and its ability to communicate timely and accurate information to customers and stakeholders by:

- Conducting effective risk assessments for operating and business functions;
- Developing appropriate prevention or risk mitigation strategies;
- Implementing comprehensive emergency preparedness programs;
- Responding with appropriate resources to address emergencies;
- Communicating with customers and other stakeholders with timely and accurate information;
- Recovering from events safely and expeditiously; and
- Improving continuously.

Since major outage events and emergencies are rarely similar in all respects, the EDRP is constructed in such a way to provide BVES management with a trained and operationally ready workforce and a response operations process that may be employed as required to deal with the unique aspects of each major outage and emergency event.

The effectiveness of the EDRP is based on BVES' commitment to prepare for, to implement, and to review procedures after each implementation. An after action review process shall facilitate continuous improvement in the BVES's response and restoration processes.

Execution of the appropriate response to affect rapid and safe recovery is dependent upon the scalability of this plan. For example, storm intensities and the number of customers affected vary and, therefore, the level of recovery resources committed to each event is adjusted as appropriate even though the operational concepts remain consistent.

1.4. **Plan Responsibility.** It is the responsibility of all Managers and Supervisors to ensure the EDRP is reviewed by all staff and is updated when appropriate. Specific responsibilities are provided throughout the EDRP.

1.5. **General Overview.** BVES customers receive electric service through an overhead and underground distribution system. Extreme weather events such as heavy rain, hail, snow, ice, lightning, high winds, and/or extreme dry heat may adversely impact the integrity of the distribution system, resulting in occasional interruptions of electric service. The distribution system is also susceptible to damages as a result of major disasters, such as earthquakes, flooding, wildfires, and mud and rock slides. Furthermore, in the interest of public safety, BVES may deem it necessary to proactively de-energize large portions of the distribution system to protect the public; for example, BVES may de-energize circuits or portions of circuits during extreme fire threat weather conditions. BVES normally imports power to its service area via Southern California Edison's (SCE) transmission lines. Therefore, the BVES service area may be susceptible to outages caused by events outside of its services area. All of the above may result in major power outages of varying extent and length depending on the severity of the event. Since electricity is a critical element in our daily lives, prompt restoration is a reasonable customer expectation and a BVES goal. In the case of major disasters, rapid and efficient restoration of power; especially to critical infrastructure, is essential to overall community disaster recovery.

The response to customer outages caused by severe weather events, other disasters or events affecting power delivery to the BVES service area is predicated on recognizing and understanding the magnitude of the event as well as the availability of resources to support the restoration process. This plan has been designed to provide a systematic organized response plan for the purpose of promoting a safe and efficient recovery from any of those conditions. Since the potential of sustaining damages is highest for storm situations, the plan specifically addresses these situations but it may easily be adapted to major outages caused by other disasters or causes.

It is also recognized that no plan can possibly predict and cover every emergency situation. Therefore, the EDRP provides a structure that is based on a set of reasonable assumptions for the most likely emergencies requiring emergency response; but it also provides the BVES's Incident Commander the authority, flexibility, and discretion to alter the BVES's emergency response to tailor it to the specific emergency situation in order to optimize the utilization of BVES resources and to achieve the emergency response goals in an effective and efficient manner.

A critical component of the EDRP is close coordination with stakeholders that depend on BVES's service and assistance for their response actions and who may, also, be able to assist BVES in its response actions. The coordination must occur in developing the plan, training on the plan, executing the plan, and in plan refinements. Some of BVES's major stakeholders include:

- Local officials (City of Big Bear Lake (CBBL) and San Bernardino County)
- State officials (California Public Utilities Commission)
- San Bernardino County Office of Emergency Services (County OES)
- Big Bear Fire Department

- California Department of Forestry and Fire Protection (CAL FIRE)
- U.S. Forest Service
- San Bernardino County Sheriff's Department Big Bear Lake Patrol Station
- California Highway Patrol (CHP) Arrowhead Area
- California Department of Transportation (Caltrans)
- Big Bear Area Regional Wastewater Agency (BBARWA)
- Big Bear City Community Services District (CSD)
- Big Bear Lake Water Department (DWP)
- Big Bear Municipal Water District (MWD)
- Southwest Gas Corporation
- Bear Valley Community Hospital
- Bear Valley Unified School District
- Big Bear Chamber of Commerce
- Big Bear Airport District
- Big Bear Mountain Resort
- Various media and communications companies

Accurate, effective and timely communications with key stakeholders is critical in emergency response and, therefore, it is essential that business relationships be developed before emergency response is necessary. Understanding stakeholders' key staff, contact information, roles and responsibilities, and capabilities are extremely useful in achieving successful emergency response.

1.6. **Definitions.**

Accessible: A condition which permits safe and legal access.

Access and Functional Needs Populations: Refers to those populations with access and functional needs as set forth in Government Code § 8593.3. Access and functional needs population consists of individuals, including but not limited to, individuals who have developmental or intellectual disabilities, physical disabilities, chronic conditions, injuries, limited English proficiency or who are non-English speaking, older adults, children, people living in institutionalized settings, or those who are low income, homeless, or transportation disadvantaged, including, but not limited to, those who are dependent on public transit or those who are pregnant.

Appropriate Regulatory Authority: The agency or governmental body responsible for regulation or governance of the utility.

Critical Customers: Customers requiring electric service for life sustaining equipment.

Emergency or Disaster: An event which is the proximate cause of a major outage, including but not limited to storms, lightning strikes, fires, floods, hurricanes, volcanic activity, landslides, earthquakes, windstorms, tidal waves, terrorist attacks, riots, civil disobedience, wars, chemical spills, explosions, and airplane or train wrecks.

Essential Customers: Customers representing critical infrastructure and Public Safety Partners.

Major Outage: Consistent with Public Utilities Code Section 364, a major outage occurs when 10 percent of the electric utility's serviceable customers experience a simultaneous, non-momentary interruption of service. For utilities with less than 150,000 customers within California, a major outage occurs when 50 percent of the electric utility's serviceable customers experience a simultaneous, non-momentary interruption of service.

Measured Event: A Measured Event is a Major Outage (as defined herein), resulting from non-earthquake, weather-related causes, affecting between 10% (simultaneous) and 40% (cumulative) of a utility's electric customer base. A Measured Event is deemed to begin at 12:00 a.m. on the day when more than one percent (simultaneous) of the utility's electric customers experience sustained interruptions. A Measured Event is deemed to end when fewer than one percent (simultaneous) of the utility's customers experience sustained interruptions in two consecutive 24-hour periods (12:00 a.m. to 11:59 p.m.); and the end of the Measured Event in 11:59 p.m. of that 48-hour period.

Public Safety Partners: First/emergency responders at the local, state and federal level, water, wastewater and communication service providers , community choice aggregators (CCAs), affected publicly-owned utilities (POUs)/ electrical cooperatives, tribal governments, the Commission, CalOES and CAL FIRE.

Safety Standby: Interim activities undertaken to mitigate immediate public safety hazards

Serviceable Customer: A customer prepared and properly equipped to receive service where both the customer's electrical service facilities and those facilities of the utility necessary to serve the customer can be legally and physically accessed in a safe manner.

Sustained Outage: An electric service interruption (0 voltage) lasting greater than 5 minutes.

2. **Emergency Response Organization.** The EDRP requires that in responding to emergencies, the BVES's staff shall be organized largely based on the Standardized Emergency Management System (SEMS) as interpreted by the BVES. The SEMS structure utilized by BVES is a utility compatible Incident Command Structure (ICS) framework designed to manage emergency incidents and events.

2.1. **Standardized Emergency Management System.** SEMS is an emergency preparedness and response system that has been endorsed by the State of California. It is the cornerstone of California's emergency response system and the fundamental structure for the response phase of emergency management. It unifies all elements of California's emergency management community into a single integrated system and standardizes key elements. Additionally, it provides a common structure for all organizations responding to an emergency situation and a means of systematic planning. The benefits of using the SEMS include:

- Use of common terminology among agencies.
- Use of parallel organizational functions among agencies.
- Provides a standard means of systematic planning.

The basic SEMS organization structure is shown in Figure 2-1, SEMS Organization:

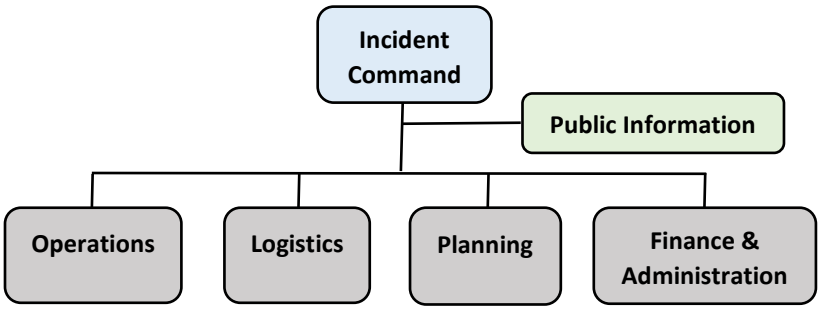


Figure 2-1: SEMS Organization

By organizing the response team along the SEMS structure, the BVES emergency response team is able to coordinate with other government and agencies via their corresponding groups. For example, BVES Operations would coordinate directly with the City of Big Bear Lake Emergency Operations Center or the San Bernardino County OES Operations Groups as applicable. Additionally, when BVES sends a representative to these two centers the representative shall already have a good understanding of the emergency response organization.

2.2. **BVES Emergency Organization.** The organization chart presented below in Figure 2-2, BVES Emergency Organization, provides the BVES Emergency Organization structure for the full mobilization (Level 1) of BVES' staff in responding to emergencies per this plan. It is the intent that this organizational structure would operate out of an Emergency Operations Center (EOC) established by BVES and be sustainable for long-term emergency response activities.

BVES Emergency Organization

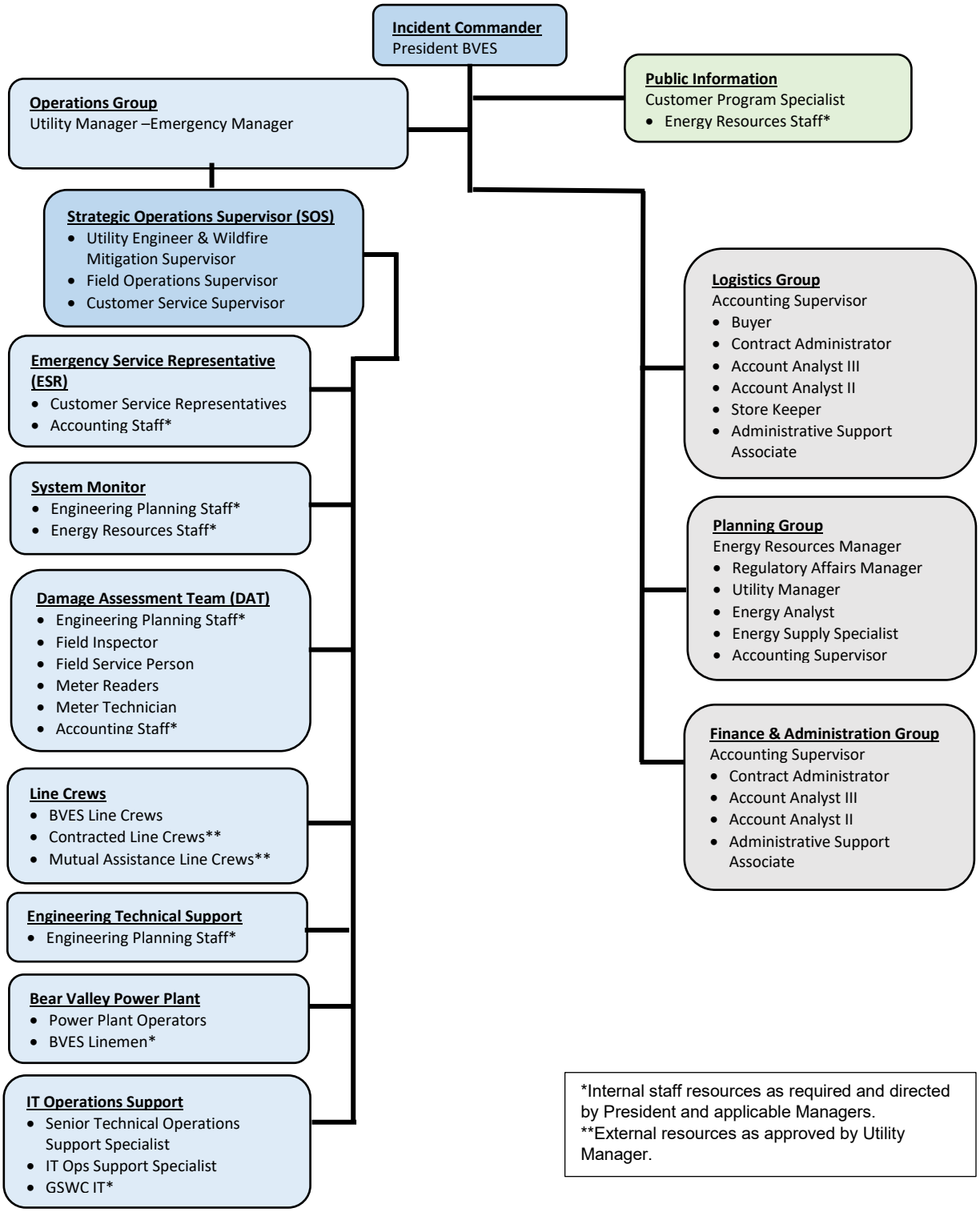


Figure 2-2: BVES Emergency Organization

The specific description of roles and responsibilities for the positions in the BVES Emergency Organization are provided in Section 2.4.

2.3. **BVES Emergency Operations Center (EOC).** An EOC shall be designated for BVES staff use in the event of an emergency. The EOC is the central command and control facility responsible for carrying out the principles of emergency preparedness and emergency response functions described in the EDRP, ensuring public and worker safety, continuity of operations, and timely communications with customers and stakeholders.

An EOC is primarily responsible for strategic direction and operational decisions. Due to the relatively small size of BVES, the Strategic Operations Supervisor (SOS) under the direction of the Operations Group at the EOC shall provide tactical emergency response direction and directly control field assets. The activities under the SOS' management at the EOC shall include all dispatch functions to include customer communications and field operations. For the purpose of the EDRP, when "dispatch" functions are referred to the EOC they are intended for the SOS and supporting team at the EOC.

The common functions of the EOC is to collect, gather and analyze data; make decisions that protect public and worker safety and property; safely maintain and/or restore continuity of operations, within the scope of applicable regulations and laws; and disseminate those decisions to all concerned customers and stakeholders in a timely manner.

2.3.1. The EOC is where the Incident Command, Operations, Planning, Logistics, Financial & Administration, and Public Information groups are located and come together. It serves as the central point for:

- Information gathering and dissemination.
- Directing emergency and restoration operations at both the strategic and tactical level.
- Coordinating with other external agencies and stakeholders.
- Developing and issuing customer and stakeholder communications.
- Evaluating available resources and requesting or relinquishing resources as appropriate.

2.3.2. The EOC shall meet the following requirements:

- Be available for immediate occupancy.
- Have access to backup electrical power.
- Contain access to multiple communication systems such as telephones, mobile phones, VHF radio, internet service, Interactive Voice Response (IVR), etc.
- Be equipped with emergency supplies, system maps and operating information.
- Be capable of sustaining long-term emergency response.

2.3.3. The primary EOC for BVES shall be located at BVES' Main Office at 42020 Garstin Dr., Big Bear Lake, CA 92315 in the "Main Conference Room."

2.3.3.1. The Utility Manager is responsible for ensuring the primary EOC is ready for immediate occupancy. Appendix A, EOC Preparedness and Setup Checklist, provides a list of equipment, capabilities, materials and supplies that should be available to the primary EOC. Some items need not be located in the EOC, but should be in close proximity and readily accessible to EOC staff. The Senior Technical Operations Support Specialist shall maintain

Appendix A up to date as configuration and technology changes are implemented and provide the Administrative Support Associate the latest version of the checklist. The checklist will also be maintained in the EOC.

2.3.3.2. If the primary EOC will not be ready for immediate occupancy, the Utility Manager shall establish an alternate EOC that is ready for immediate occupancy and shall notify BVES staff. Table 2-1 below provides a list of possible alternate EOCs to be considered.

Table 2-1: Possible Alternate Emergency Operation Centers

Location	To Be Considered
Operations & Planning spaces at the BVES Main Office	Primary EOC not available. Also consider this site, when scope of emergency response activation is reduced (such as Level 2 activation) and all or most activity is carried out by Field Operations.
BVES's General Office in San Dimas, California	When evacuation of the BVES service area is ordered.
State or County's Incident Commander's base camp	When the BVES Main Office is not accessible.
Other suitable area designated by the Utility Manager	When primary EOC is not accessible or available and the above options are not the optimal location.

2.3.3.3. In selecting an alternate EOC location, the Utility Manager shall at a minimum consider the following factors:

- Safety of BVES emergency response staff
- Location of hazards and potential movement of hazards
- Location of the emergency
- Communications capability and ability to coordinate efficiently with stakeholders
- Location and accessibility to BVES resources (staff, equipment, material, etc.)

2.4. **Roles and Responsibilities.** This section provides the general intended roles and responsibilities of the BVES Emergency Organization shown in Figure 2-2. It should be noted that the Incident Commander and Group Leaders have the authority to modify roles and responsibilities of those under their responsibility to optimally respond to the specific emergency event. When modifications are made, these should be included during the after action report for the event so that possible changes to the EDRP may be considered. BVES has a small staff, therefore, in the interest of sustainability, efficiency and effectiveness, some staff are "dual hatted" and may be assigned multiple roles and responsibilities.

2.4.1. *Incident Commander*

2.4.1.1. President, BVES is the primary BVES staff assigned. Alternates that may be assigned include: Utility Manager, Energy Resources Manager, Regulatory Affairs Manager, or other BVES officials as directed by the Chief Executive Officer (CEO).

2.4.1.2. Incident Commander reports directly to the CEO.

2.4.1.3. Overall responsible for organizing and directing the EDRP by providing strategic direction for the emergency response. Activities associated with the Incident Commander are mostly strategic in nature and include, but are not limited to:

- Direct EOC activation. Based on the emergency level and the particular situation surrounding the emergency, may direct partial activation of the EOC.
- Authorize de-activation of the EOC (or any partial de-activation).
- Authorize use of alternate EOC location when appropriate.
- Provide timely and accurate updates to Senior BVES management (CEO, CFO, VP Regulatory Affairs, etc.) of emergency response.
- Approve and/or conduct high-level communications with federal, state, county, and/or city officials as well as other utilities and non-governmental organization (NGOs).
- Approve and/or conduct external communications with media and the public.
- Approve regulatory reports for outages, incidents and accidents (GO-95, GO-128 & GO-166). Work closely with Regulatory Affairs at the General Office (GO).
- Approve situation reports that may be requested by external organizations such as California Utility Emergency Association (CUEA), State of California Office of Emergency Services (OES), San Bernardino County OES, City of Big Bear Lake, California Public Utilities Commission (Safety Enforcement Division and Energy Division), local Incident Commander, etc.
- Ensure Operations, Planning, Logistics, and Finance & Administration Groups (SEMS) are properly resourced to respond to emergency.
- Lead periodic update meetings with the BVES SEMS Group Leaders.
- Approve requests for mutual aid.
- Approve use of emergency contracting and procurement provisions.

2.4.2. Public Information Group.

2.4.2.1. Customer Program Specialist is the primary BVES staff assigned to this group. Alternates who may be assigned include: Energy Supply Specialist, Customer Service Supervisor, or others as designated by the Incident Commander. Generally, the Customer Program Specialist and Energy Supply Specialist (or other staff assigned) shall alternate shifts.

2.4.2.2. Public Information reports directly to the Incident Commander on all public information issues and coordinates directly with the leaders of the Operations, Planning, Logistics and Finance & Administration Groups to stay informed on the latest status of the emergency response. Attends BVES SEMS leadership meetings.

2.4.2.3. Public Information facilitates communication with all stakeholder groups, including the news media and provides a variety of public information services during an electric system emergency. Activities associated with Public Information include, but are not limited to:

- Develop public engagement strategy and directs all aspects of public messaging.
- Keep customers, stakeholders, BVES management and employees informed on the status of the emergency response including extent of outages, cause of outages, damage and

casualty assessments, restoration efforts in progress and planned, estimated time to restore service, and updates to the emergency response through widely available communications channels.
- Act as the central point of contact for any external public inquiries.
- Prepare and distribute public information releases for media, website, social media, interactive voice response and two-way text messages, state and local government, and other BVES stakeholders.
- Prepare and distribute responses to media inquiries.
- Coordinate with the General Office and other stakeholder public information officials.
- Work closely with the Incident Commander, public relations contractor and General Office (Regulatory Affairs) on public engagement.
- Work closely with other SEMS Groups to be informed of latest information.
- Provide line crews, customer service and other staff who operate in the field or interact directly with customers with the latest information to be shared with public.
- Coordinate participation in joint press conferences with other stakeholders as needed or directed.
- Organize press conferences as needed or as directed.
- Assist in preparing the Incident Commander and other BVES staff for press conferences and interviews.
- Follow media and social media for discussion of BVES and develop rapid response to dispel erroneous information.
- Update BVES website, social media, local media, interactive voice response and two-way text messages, and other communications platforms as conditions change.
- Activate advertising campaigns with local media when appropriate.

2.4.3. Operations Group. The Operations Group is overall responsible for all of the emergency response actions in the field necessary to safely restore service to customers. As such, this group is made up of customer service, line crews, field operations, engineering and planning, and power generation staff and contractors. The Emergency Manager leads this group.

2.4.3.1. *Emergency Manager*. Utility Manager is the primary BVES staff assigned. Alternates who may be assigned include: Energy Resource Manager, Utility Engineer & Wildfire Mitigation Supervisor and Field Operations Supervisor. The Emergency Manager reports directly to the Incident Commander. Activities associated with the Emergency Manager are partly strategic and partly tactical in nature and include, but are not limited to:

- Ensure public, employee and contractor safety is top priority in all restoration activities.
- Authorize deviations to the EDRP as necessary to safely, efficiently and effectively execute restoration activities.
- Attend BVES SEMS leadership meetings.
- Issue the work schedule and shift rotations for all staff and contractors assigned to the Operations Group.
- Direct the number of Emergency Service Representatives, System Monitors, Damage Assessment Teams, and Line Crews to be assigned per shift.
- Ensure staff and contractors are adequately rotated to allow for rest and safe operations.
- Authorize overtime labor expense as needed.

- Direct all restoration and emergency response activities in the field.
- Keep Incident Commander and Public Information informed of progress.
- Drive to obtain and communicate “estimated time of restoration” (ETR) for outages and update this information as the situation progresses.
- Coordinate with other SEMS Groups.
- Constantly evaluate restoration progress and optimize utilization of available resources to safely, efficiently and effectively restore service.
- Identify and request additional resources when needed and stand-down resources when no longer required.
- Coordinate restoration activities with other external entities (City, County, Fire Department, Sheriff, CHP, Forestry Service, CALTRANS, other utilities, contractors, etc.).
- Assign and dispatch a knowledgeable BVES representative to local government and/or agency Incident Command as needed.
- Ensure outages, incidents, and accidents are properly documented.
- Assist in preparing regulatory reports for outages, incidents, and accidents (GO-95, GO-128 & GO-166).
- Prepare external situation reports as requested.
- Ensure cost recovery records and documentation for restoration work are being maintained as requested by the Finance and Administration Group.
- Review weather forecast and other external information to optimize restoration response.
- Prepare mutual aid inquiries and requests.
- Communicate logistics requirements to complete restoration activities.
- Work collaboratively with other stakeholder organizations and the General Office as applicable on logistics issues.
- Perform other operations activities as directed by the Incident Commander.

2.4.3.2. *Strategic Operations Supervisor (SOS)*. The Field Operations Supervisor, Utility Engineer & Wildfire Mitigation Supervisor, and Customer Service Supervisor are the primary BVES staff assigned. Alternates who may be assigned include: Utility Manager and the Regulatory Compliance Project Engineer. The SOS reports directly to the Emergency Manager. Activities associated with the SOS are mostly tactical in nature and include, but are not limited to:

- Ensure public, employee and contractor safety is top priority in all restoration activities.
- Maintain the “common operational picture” in the EOC. Utilizes the Outage Management System (OMS), Supervisory Control and Data Acquisition (SCADA), CC&B, GIS applications, and other applications to manage information and data in support of restoration efforts.
- Act as the Emergency Manager’s direct representative in the EOC and direct all operations activities to include all dispatch functions while the EOC is activated. For the purpose of this EDRP, the SOS is equivalent to “Dispatch” and the terms may be used interchangeably.
- Function as the central Dispatch during EDRP implementation. Receive, prioritize, dispatch, and resolve all Field Activities (FA’s) and Transmission and Distribution (T&D) system problems reported by other means per BVES priorities identified in the EDRP.
- Direct all restoration and emergency response activities in the field.

- Direct and supervise the Emergency Service Representative(s), System Monitor, Damage Assessment Team(s), Line Crews (BVES, contracted and/or mutual aid), Bear Valley Power Plant Operators, IT Operations Support and Contracted Services (for example, snow removal, vegetation management, etc.) in all aspects of EDRP activities.
- Ensure resources are safely, efficiently and effectively deployed per the EDRP priorities and as directed by the Emergency Manager.
- Recommend to the Emergency Manager whether to increase, maintain, or decrease restoration resources to safely, efficiently, and effectively execute the restoration activities.
- Properly document outages, incidents, and accidents.
- Maintain cost recovery records and documentation of work completed as requested by the Finance Group at the General Office.
- Review weather forecast and other external information to optimize restoration response.
- Develop logistics requirements necessary to complete restoration activities.
- Keep Emergency Manager and Public Information informed of progress.
- Update Situation Report.
- Dispatch the Bear Valley Power Plant (BVPP) as needed. Coordinate any logistics necessary to operate the power plant.
- Ensure accurate and detailed status of T&D switches, equipment and facilities are maintained in the EOC and updated as changes occur.
- Approve field switching orders and direct all field switching operations.
- Mostly operate in the EOC but may go out to the field as needed to personally view issues. When departing the EOC, the SOS should designate a knowledgeable staff member to be in charge of the EOC during his absence. It may be advantageous for the off-going SOS to tour outage sites immediately after shift and provide the SOS a report. Alternatively, it may be advantageous for the on-coming SOS to tour outage sites prior to shift.

2.4.3.3. *Emergency Service Representative (ESR)*. BVES staff who are assigned to this task are the Customer Service Representatives and the Customer Service Specialist. The number of ESR staff assigned per shift shall be directed by the Emergency Manager. Other staff may be requested to augment the ESR Team or to augment certain functions of the ESR Team (for example, EOC staff may be used to call back customers as needed). Additionally, the ESR function or some portions of the ESR function may be transferred to BVES's contracted call center during non-business hours when call volume is low. ESR staff reports directly to the SOS. Activities associated with the ESR Team include, but are not limited to:

- Process incoming customer calls.
- Issue FA's as appropriate.
- Route FA's to EOC dispatch for action.
- Update the Outage Management System as applicable.
- Assist EOC Dispatch in organizing and prioritizing incoming FA's as directed by SOS.
- During extremely high volume periods, alternative procedures may be employed to route FA's more efficiently as directed by the Emergency Manager. For example, the ESRs may be requested to route a periodic CSV file from CC&B of new FA's to EOC Dispatch instead of individual FA's.
- May be assigned to provide first layer of sorting FA's by type (outage, line down, etc.) as directed by the SOS.

- Respond to customer inquiries on system status using latest information from EOC.
- Provide SOS information on customers with “Life Support” and Access and Functional Needs (AFN) customers affected by outages.
- Update IVR and two-way text messages as directed by the SOS.
- Update Customer Care and Billing (CC&B) with results of completed FA’s from EOC.
- Call customers to verify power restoration as directed by SOS.
- Normally ESR staff perform assigned duties in the Customer Service area. The Emergency Manager may direct ESR staff to work at another area.

2.4.3.4. *System Monitor.* Staff assigned to this position are directed by the Emergency Manager and are generally selected from the following staff: Energy Analyst, Regulatory Compliance Project Engineer, Wildfire Mitigation & Reliability Engineer, Utility Planner, GIS Specialist, Engineering Technician, Engineering Inspector, Substation Technician, Meter Technician, Field Inspector, Senior Account Analyst, Account Analyst, and Administrative Support Associate. Other staff as deemed qualified by the Emergency Manager may also be assigned. Normally, one System Monitor shall be assigned per shift but additional System Monitors may be assigned to certain shifts when activity is expected to be high. The System Monitor reports directly to the SOS. Activities associated with the System Monitor include, but are not limited to:

- Assist the SOS in maintaining the “common operational picture” in the EOC. Utilizes the Outage Management System (OMS), SCADA, CC&B, GIS applications, and other applications to manage information and data in support of restoration efforts.
- Work closely with Emergency Service Representatives to transfer information.
- Update the Situation Report.
- Assist in receiving, prioritizing, dispatching, and resolving all FA’s and T&D system problems reported by other means per BVES priorities identified in the EDRP.
- Take reports from the Line Crews, Damage Assessment Teams and other field assets and communicate this information to appropriate EOC staff.
- Document outages, incidents, and accidents.
- Maintain cost recovery records and documentation of work completed as requested by the Finance and Administration Group.
- Review weather forecast and other external information and provide this information to the SOS and Emergency Manager.
- Maintain status of the BVPP as needed.
- Assist SOS in maintaining an accurate and detailed status of T&D switches, equipment and facilities in the EOC.
- Assist the SOS in execution of responsibilities as directed.
- Perform assigned duties in the EOC.

2.4.3.5. *Damage Assessment Team (DAT)*. Staff assigned to this team are as directed by the Emergency Manager and are generally selected from the following staff: Field Inspector, Substation Technician, Meter Technician, Field Serviceperson, Meter Readers, Wildfire Mitigation & Reliability Engineer, Utility Planner, GIS Specialist, Engineering Technician, Engineering Inspector, Buyer, Storekeeper, Regulatory Compliance Project Engineer, and Energy Analyst. Other staff as deemed qualified by the Emergency Manager may also be

assigned to this team. Normally, each DAT shall consist of two people. At least one DAT shall be assigned to each shift. Additional DATs may be assigned to certain shifts when activity is expected to be high. The DAT reports directly to the SOS. Activities associated with the DAT include, but are not limited to:

- Assist the SOS in execution of responsibilities as directed.
- Perform field investigations as directed by SOS.
- Keep the SOS informed of their position when out in the field.
- Provide detailed assessments and documentation including photographs and video of damage to SOS.
- Coordinate with and assist Line Crews as directed by SOS.
- Normally travel in pairs; especially during storm and other potentially hazardous conditions and at night. When conditions are favorable, the Emergency Manager may permit DAT field inspections to be performed by a single person.
- When not in the field, perform duties in the EOC as directed by the SOS.

2.4.3.6. *Line Crews*. Staff assigned to this crew are BVES Journeyman Lineman Crews (including Apprentice employees). Other BVES staff that are Journeyman Lineman (for example, Field Inspector) may be assigned as needed and directed by the Emergency Manager to augment BVES Line Crews. Emergency Manager may also assign Contracted Line Crews and Line Crews from other utilities through mutual aid agreements. The Emergency Manager shall direct the specific crew sizes, shift lengths and rotations, and functions (such as construction, service response, wire down and minor damage response, switching operations, patrols, damage assessments, etc.). The Line Crews report directly to the SOS. Activities associated with the Line Crews include, but are not limited to:

- Perform field activity work (such as construction, service response, wire down and minor damage response, switching operations, patrols, damage assessments, etc.) as directed by SOS.
- Keep SOS informed of work progress and developments in the field.
- Keep SOS informed of the status of T&D switches, equipment and facilities.
- Provide information (such as labor hours, equipment usage, and material consumption) to allow the collection of accurate cost recovery records and documentation for work completed.
- Assist in documenting outage and T&D system damage and restorations efforts.
- Consult with SOS on technical issues that may require Engineering & Planning evaluation and input.
- Request additional resources as needed.
- Operate Bear Valley Power Plant engines as directed.

2.4.3.7. *Engineering Technical Support*. The primary assigned are Engineering and Planning staff (Utility Engineer & Wildfire Mitigation Supervisor, Regulatory Compliance Project Engineer, Utility Planner(s), Wildfire Mitigation & Reliability Engineer, GIS Specialist, Engineering Technician, and Engineering Inspector) as designated by the Emergency Manager. This function may be augmented by mutual aid from other utilities and/or qualified contractors as the Emergency Manager deems necessary. Normally, Engineering Technical Support is an

"on-call" function as requested by the SOS. Engineering and Planning staff are generally "dual hatted" and perform other EDRP functions as assigned by the Emergency Manager. When there is a need for Engineering Technical Support, the System Monitor and SOS shall prioritize the specific workload for each Engineering and Planning staff (for example, Utility Planner may be pulled from the DAT to perform planning activities such as loading assessments on pole replacements and then return to DAT duties once the engineering work is completed).

2.4.3.8. *BVPP Operators*. Primary assigned are the BVPP Operators. BVES Journeyman Lineman may also be assigned as directed by the Emergency Manager. Additionally, the Emergency Manager may contract out for additional BVPP Operators, if needed. The Emergency Manager shall direct BVPP Operators and their shift schedule as necessary to support the anticipated or actual dispatching of the power plant. The BVPP Operators report directly to the SOS. Activities associated with the BVPP Operators include, but are not limited to:

- Operate the BVPP as directed by SOS.
- Maintain BVPP at the ready when not dispatched.
- Ensure backup systems fully operational.
- Ensure readiness to perform "Black Start" procedure.
- Request additional resources as needed.
- Document materials and labor hours expended.

2.4.3.9. *IT Operations Support*. Primary assigned is the Senior Technical Operations Support Specialist and the Technical Operations Support Specialist. GSWC IT resources may provide backup support for this function. IT Support shall report directly to the SOS. Activities associated with IT Support include, but are not limited to:

- Ensures utmost business continuity by monitoring and maintaining EOC, Operations & Planning, Customer Service, Accounting and Energy Resources communications and IT systems are operating properly.
- Provides support to ensure connectivity to critical applications.
- Coordinates communications and IT systems issues with GSWC IT.
- Resolves local IT and network connectivity issues with field equipment and systems (for example, SCADA).
- Coordinates communications and connectivity with other entities as directed.
- Assists with other duties as directed by the SOS.

2.4.4. Logistics Group.

2.4.4.1. The Accounting Supervisor is the primary BVES staff assigned in charge of the Logistics Group. Alternates that may be assigned include the Senior Accounting Analyst, Buyer or others as designated by the Incident Commander.

2.4.4.2. The Logistic Group shall normally be made up Accounting Supervisor, Senior Account Analyst, Buyer, Storekeeper, Accounting Analyst, Administrative Support Associate, and other staff as designated by the Incident Commander.

2.4.4.3. Logistics Group reports directly to the Incident Commander on all logistics issues and coordinates directly with the leaders of the Operations, Planning, Logistics and Finance & Administration Groups to provide optimal logistics support to ensure restoration activities are safe, efficient and effective. Activities associated with Logistics Group include, but are not limited to:

- Group leader attends BVES SEMS leadership meetings.
- Maintain at least one group member at the EOC. EOC presence may be modified to "on call" when logistics work is not significant (for example, during night shift) as approved by the Incident Commander.
- Work closely with Emergency Manager and SOS to forecast contracted services, equipment and material requirements for restoration activities.
- Invoke contracts for response services as requested by the Emergency Manager (for example, emergency line work, snow clearing, tree trimming and clearing, etc.).
- Process emergency contracts and procurement requests as needed to support emergency restoration activities.
- Ensure materials for recovery activities are available, issued to Line Crews as needed, and properly documented when utilized or consumed.
- Ensure vehicle fleet fueled, winterized and ready to support response activities.
- Ensure BVES facilities properly functioning to support EOC and response activities.
- Arrange meals as necessary for staff engaged in response activities.
- Arrange lodging and other mobilization logistics for mutual aid and contracted crews as requested by the Emergency Manager.
- Work collaboratively with other stakeholder organizations and the General Office as applicable on logistics issues.
- Perform other logistics activities as directed by the Incident Commander.
- Develop lists of lessons learned for after action evaluation and improvements to logistics.

2.4.5. Planning Group.

2.4.5.1. The Energy Resources Manager is the primary BVES staff assigned in charge of the Planning Group. Alternates that may be assigned include the Utility Manager, Regulatory Affairs Manager, or others as designated by the Incident Commander.

2.4.5.2. The Planning Group shall normally be made up of the Regulatory Affairs Manager, Utility Manager, Customer Care and Operations Support Supervisor, Accounting Supervisor, Energy Supply Specialist, Energy Analyst, and other staff as designated by the Incident Commander.

2.4.5.3. The Planning Group reports directly to the Incident Commander on all planning issues and coordinates directly with the leaders of the Operations, Logistics and Finance & Administration Groups to provide optimal planning support to ensure restoration activities are safe, efficient and effective. Activities associated with Planning Group include, but are not limited to:

- Group leader attends BVES SEMS leadership meetings.

- Maintain at least one group member at the EOC. EOC presence may be modified to "on call" when planning work is not significant (for example, during night shift) as approved by the Incident Commander.
- Work closely with Emergency Manager to develop a high level restoration strategy.
- Evaluate the adequacy of response and recommend adjustments as needed.
- Evaluate weather forecasts and other event information to develop contingencies.
- Determine if Catastrophic Emergency Memorandum Account (CEMA) request is appropriate and coordinate with local government officials and Regulatory Affairs on emergency declarations.
- Develop load forecasts and plan sources of energy supply to best meet load demand.
- Work collaboratively with other stakeholder organizations and the General Office as applicable on planning issues.
- Perform other planning activities as directed by the Incident Commander.
- Develop lists of lessons learned for after action evaluation and improvements to plans.

2.4.6. Finance & Administration Group.

2.4.6.1. The Accounting Supervisor is the primary BVES staff assigned in charge of the Finance and Administration Group. Alternate staff may be assigned include the Energy Resource Manager, Senior Account Analyst, or others as designated by the Incident Commander.

2.4.6.2. The Finance & Administration Group shall normally be made up of the Senior Account Analyst, Account Analyst, Administrative Support Associate, and other staff as designated by the Incident Commander.

2.4.6.3. The Finance & Administration Group reports directly to the Incident Commander on all finance and administration issues and coordinates directly with the leaders of the Operations, Logistics and Planning Groups to provide optimal Finance & Administration support to ensure that restoration activities are safe, efficient and effective. Activities associated with Finance & Administration Group include, but are not limited to:

- Group leader attends BVES SEMS leadership meetings.
- Maintain at least one group member at the EOC. EOC presence may be modified to "on call" when planning work is not significant (for example, during night shift) as approved by the Incident Commander.
- Work closely with Operations & Logistics Groups to track expenses (labor, invoices for services, materials consumed, etc.).
- Ensure clear guidance provided to groups to ensure expenses properly tracked.
- Treat each event as possible Catastrophic Event, which costs could be authorized for recovery.
- Execute CUEA administrative requirements as needed.
- Work collaboratively with other stakeholder organizations and the General Office as applicable on finance and administration issues.
- Perform other finance and administrative activities as directed by the Incident Commander.

- Develop lists of lessons learned for after action evaluation and improvements to finance and administration.

2.5. **Plan Changes.** BVES Incident Commander has the authority to modify this plan including the organizational structure as needed to optimally respond to the specific emergency at hand. Specifically, the Incident Commander, must evaluate each emergency situation and determine:

- To what extent should the BVES Emergency Organization be staffed.
- To what extent should the EOC be activated.
- Should additional resources (for example, mutual aid and/or contracted services) be mobilized.

3. Emergency Response Event Preparations.

3.1. **Preparations.** Emergency Response preparations are a long-term process for which each BVES Department must be constantly ready, especially during the winter months. Preparations for emergency response are best achieved through training on the EDRP, continuous evaluation of the plan, coordination and outreach with external stakeholders, provisioning emergency response materials and equipment, and establishing mechanisms to rapidly bring emergency response resources to the service area such as mutual aid agreements, contracts, and other partnering agreements.

3.2. **Emergency Response Preparations Checklist.** Appendix B, Emergency Response Preparations Checklist, is designed to assist Managers and Supervisors in short-term emergency response preparations.

3.2.1. The President shall direct the execution of the Emergency Response Preparations Checklist based on available forecasting information. In general, it is easier to stand down from a forecasted storm event that does not materialize than to ramp up in the middle of a major storm event. Therefore, erring on the side of being ready is always the better choice. The President may direct the suspension of the Emergency Response Preparations Checklist if the forecast changes and it is no longer warranted.

3.2.2. The checklist is ideally triggered at the 96-hour point prior to a potential emergency response event such as a major forecasted winter storm. However, staff must be flexible and understand not all emergency response events will be accurately forecasted; hence, the implementation time of this checklist may be significantly less than 96-hours. In the event that major outages occur without warning, it is still useful to go through the Emergency Response Preparations Checklist and complete the preparatory checklist items as applicable.

3.2.3. The checklist is designed to be all-inclusive of plausible emergency response to storm events for the BVES service area such as winter snow storms. Therefore, certain preparatory items may not be applicable for all emergency response events; for example, vehicle snow chains may not be required during a loss of import power supply lines from Southern California Edison (SCE). The Utility Manager may direct that certain items on the checklist need not be executed as applicable. Additionally, the Utility Manager may direct new preparatory items be added to the checklist depending on specific impending conditions. The Utility Manager shall use this checklist as applicable when extreme fire threat weather that could result in PSPS conditions is forecasted. The Utility Manager shall keep the President informed of any changes to the checklist.

3.2.4. During after action reviews for emergency response events as well as the annual Emergency Preparedness and Response Plan drill, the Emergency Response Preparations Checklist should be reviewed for adequacy and updated as applicable.

3.3. **Contingency Operating Procedures.** The Field Operations Supervisor shall develop pre-approved switching orders and operating procedures that would most likely to be used in the more plausible loss of supply and outage scenarios. The Field Operations Linemen, the

Power Plant Operators, and other applicable BVES Staff should train on these procedures as applicable so that in the event they are needed, the procedures are readily available, approved, and understood by staff. Switching orders and operating procedures should include at a minimum the following:

- BVPP Black Start System Line-up Switching Order.
- BVPP Black Start Engine Startup Procedures (with and without back-up BVPP generator).
- Switching Order to express the Radford SCE Source to Meadow Substation.
- Rolling blackout procedure when only Radford SCE Source and BVPP are available (13.4 MW Capacity Limit).
- Rolling blackout procedure when only BVPP is available (8.4 MW Capacity Limit).
- Load shedding procedures and priorities.
- Proactive de-energization of high risk circuits in the event of extreme fire threat weather.

3.4. **Mobile Emergency Generation.** The Utility Manager shall ensure that there is a contingency plan to connect mobile emergency generators to the BVES system to provide emergency power. The contingency plan should at a minimum include the following:

- Source at least 5 MWs of mobile emergency generation (may be multiple generators) that may be brought to the BVES service area within 24 hours of being requested. If possible, at least two vendor sources should be identified.
- Identify the fuel requirements and replenishment source(s) for the proposed mobile emergency generation.
- Identify the locations in the BVES system where the mobile emergency generators would be located and connected to the BVES system.
- Identify the connection type and ensure that this is compatible with the sourced mobile emergency generators and the BVES system.
- Identify if any networking is required by the supplier for the mobile emergency generators to operate and, if so, how this shall be accomplished.
- Identify any protection needed and ensure that it is available between the source mobile emergency generators and the BVES system connection points.
- Identify the operating control requirements for the sourced mobile emergency generators (for example, monitoring requirements, startup and shutdown procedures, voltage and load regulation, phase synchronization, operating checks and maintenance, operator labor requirements, etc.) and address how these shall be accomplished (for example, supplier shall operate the mobile emergency generators, etc.).

3.5. **Material and Equipment.** Obtaining material and equipment is always a challenge given that the BVES service area is remotely located and at approximately 7,000 feet in mountainous terrain with only three points of access. The roads present a significant challenge to large trucks under most conditions and all vehicles in wintery ice and snow conditions. Therefore, it is essential to the success of BVES' emergency response plan that certain minimum levels of materials and equipment be always readily available in the BVES service area.

3.5.1. The Utility Manager shall provide the Accounting Supervisor a minimum quantity of T&D equipment and materials to maintain at BVES to allow timely repairs to likely T&D system failures (overhead facilities, underground facilities, and substation equipment). Additionally, the Utility Manager should identify other vital spares to sustain BVPP operations.

3.5.2. The Field Operations Supervisor shall provide the Accounting Supervisor the minimum quantities of materials and supplies necessary to safely operate field crews involved in restoration repairs. These supplies should include items such as traffic control markers and signs, caution cones, portable site lighting, caution lighting, yellow CAUTION tape and red DANGER tape, portable safety barriers, personal protective equipment (PPE), winter and foul weather gear, etc.

3.5.3. All Managers and Supervisors shall ensure that their staff that would be assigned to operate in the field have available to them the appropriate PPE, adequate weather protection (cold weather gear, rain gear, sunscreen and head gear, etc.), and equipment to perform their duties as assigned by the EDRP.

3.5.4. The Buyer and Storekeeper under the supervision of the Accounting Supervisor shall ensure the equipment and materials identified above are stocked to the minimum quantities. Additionally, they shall ensure the identified equipment and materials are readily sourced and may be ordered and delivered in short timeframe.

3.6. **Vehicles.** All Managers and Supervisors are responsible for ensuring that the vehicles and trucks assigned to them and their employees are ready to operate safely and as needed during restoration activities under the anticipated weather and terrain challenges of the BVES services area.

3.6.1. The Accounting Supervisor shall develop a minimum list of equipment for all BVES vehicles to operate safely in the anticipated weather and terrain conditions including snow and ice that are reasonably encountered in the BVES service area (for example, snow tires, snow chains, shovel, first aid kit, light, fire extinguisher, etc.).

3.6.2. The Field Operations Supervisor shall develop a list of any additional equipment necessary for all utility trucks (digger and bucket trucks), work trucks (foreman and Dutyman trucks) and other vehicles used by Field Operations employees to operate safely and as needed in the anticipated weather and terrain conditions that are reasonably encountered in the BVES service area.

3.6.3. The Storekeeper under the direction of the Accounting Supervisor shall coordinate with the applicable Managers and Supervisors to ensure all vehicles and trucks are fully equipped, properly serviced, and ready to safely operate as needed in the anticipated weather and terrain conditions that are reasonably encountered in the BVES service area.

3.6.4. If a vehicle is not properly equipped, in good working order, and/or safe to operate for the current or anticipated conditions, it should be identified as such by the applicable Manager or Supervisor that is responsible for the vehicle or truck and restricted in use (for example, if a vehicle is not equipped with snow tires and chains, it should not be used in snow conditions).

3.7. **Contracts for Services.** During emergency restoration response activities, outside contracted services may be required to ensure efficient and effective restoration of electric service. However, it is extremely difficult to source and contract out services on short notice during an emergency. Therefore, Managers and Supervisors should identify the critical contracted services that may be reasonably expected to be needed for restoration activities, source providers of these services, and establish emergency contract agreements in accordance with the BVES's procurement policy.

3.7.1. **Table 3-1** lists the contracted services that should have pre-arranged emergency contract agreements in place.

Table 3-1: List of Minimum Contingency Contracted Services

Contracted Service	Responsibility	Additional Emergency Requirement
T&D overhead and underground high voltage utility power line construction.	Utility Manager	• Must have 24/7 contact. • Onsite within 8 hours.
T&D substation and major electrical equipment troubleshooting, repair and replacement services.	Utility Manager	• Must have 24/7 contact. • Onsite within 24 hours.
T&D work package design and development services.	Utility Engineer & Wildfire Mitigation Supervisor	• Onsite within 48 hours.
Civil construction for utility underground infrastructure repair and construction, road and sidewalk repair and construction, retaining wall repair and construction, backhoe services, hauling and other civil construction services.	Field Operations Supervisor	• Must have 24/7 contact. • Onsite within 8 hours.
Crane and lifting Services.	Field Operations Supervisor	• Must have 24/7 contact. • Onsite within 8 hours.
Vegetation clearance from high voltage overhead power lines and tree removal.	Field Operations Supervisor	• Must have 24/7 contact. • Onsite within 8 hours.
Airborne inspection, heavy lift and construction services	Utility Manager	• Must have 24/7 contact.
Environmental cleanup and mitigation to oil and hazmat spills.	Accounting Supervisor	• Must have 24/7 contact. • Onsite within 8 hours.
Welding and metal fabrication services.	Field Operations Supervisor	• Must have 24/7 contact. • Onsite within 8 hours.
Snow removal for BVES Main Facility and Stockyard, substations and other areas as directed.	Field Operations Supervisor	• Must have 24/7 contact. • Onsite within 4 hours.
Troubleshooting, repair and replacement parts for emergency generators (Main Office and BVPP).	Field Operations Supervisor	• Must have 24/7 contact. • Onsite within 12 hours.
Mechanical and electrical troubleshooting, repair services and replacement parts for BVPP equipment and support systems (Waukesha Model VHP7104GSI engine/generator sets).	Field Operations Supervisor	• Must have 24/7 contact. • Onsite within 12 hours.
Utility Truck troubleshooting, repair and support services	Field Operations Supervisor	
Vehicle troubleshooting, repair and support services	Storekeeper	
Diagnostic and technical support services for SCADA and associated network systems.	Senior Technical Operations Support Specialist	

Contracted Service	Responsibility	Additional Emergency Requirement
Diagnostic and technical support services for Outage Management System (OMS) and related applications.	Senior Technical Operations Support Specialist	
Diagnostic and technical support services for Interactive Voice Recording (IVR) and related applications.	Customer Service Supervisor	
Diagnostic and technical support services for BVES's phone system.	Senior Technical Operations Support Specialist	
Diagnostic and technical support services for BVES's internal and external network and connectivity systems.	Senior Technical Operations Support Specialist	
Diagnostic and technical support services for BVES's External Website.	Customer Program Specialist	
Public relations (PR) services	Customer Program Specialist	• Must have 24/7 contact. • Provide remote PR response within 2 hours
Media advertising services	Customer Program Specialist	

3.7.2. Many of the services listed in Table 3-1 are used in the normal course of BVES operations through already established contracts. Where this is the case, it is advantageous to include any additional emergency response requirements rather than sourcing to different suppliers.

3.7.3. The Administrative Support Associate in coordination with the Utility Manager and Accounting Supervisor shall develop a list of Contingency Contracted Services and file the list in Appendix C, Contingency Contracted Services. The list shall be in tabular format and at a minimum include the following information:

- Contractor Entity Name
- Services Provided with brief description of any specific emergency requirements
- Point of Contact
- Contact phone numbers including afterhours numbers
- Main Office location

The list shall be reviewed and updated by the Administrative Support Associate each quarter.

3.7.4. Where onsite mobilization is required to perform the requested services, Managers and Supervisors should carefully consider the feasibility for the contractor to reach the BVES service area in a timely manner given the remote and mountainous terrain.

3.7.5. When advanced warning or forecasting is available, the Utility Manager may direct pre-positioning of equipment and materials to improve the ability of the contractor to mobilize. For example, a contractor for T&D overhead and underground high voltage utility power line construction may be requested to pre-position trucks at BVES ahead of a snow storm.

3.7.6. When advanced warning or forecasting is available, it is generally useful for Managers and Supervisors alert their points of contact for contracted services that there may be an impending requirement for their services.

3.8. **Mutual Aid.** Mutual Aid agreements are an efficient and effective resource multiplier available to BVES restoration efforts. Therefore, it is extremely important that these agreements be maintained current and that staff understand what resources they may provide and how to request the resources.

3.8.1. California Utilities Emergency Association. The California Utilities Emergency Association (CUEA) Mutual Aid Agreement allows member utilities to request and obtain labor, materials, and/or equipment resources from other member utilities in a rapid manner on a reimbursable basis. BVES shall be an active member of CUEA and shall participate in the Energy Committee meetings and activities as feasible. Generally, CUEA meetings and activities provide information on emergency response planning at other utilities and state agencies. Additionally, CUEA is an excellent forum for organizations to discuss best practices. The Utility Manager shall be responsible for managing CUEA mutual aid agreement and shall ensure processes are in place and applicable Operations Staff are trained to:

- Inquire about CUEA resources and make formal mutual aid requests in accordance with the CUEA agreement.
- Provide mobilization support such as lodging and meals to responding mutual aid crews and other labor resources provided through CUEA.
- Direct and manage mutual aid crews and other labor resources provided through CUEA.
- Provide logistics support (materials, equipment and other resources as needed) to mutual aid crews and other labor resources provided through CUEA.

The Administrative Support Associate shall ensure CUEA documents are available to the Operations Group and in the EOC.

The Accounting Supervisor shall ensure processes are in place to account for and pay for CUEA mutual aid resources that respond to BVES' aid requests. This shall require close coordination with the Operations Group.

3.8.2. Mountain Mutual Aid Association. The mission of the Big Bear Valley Mountain Mutual Aid Association ("MMAA") is to coordinate and facilitate resources to minimize the impact of disasters and emergencies on people, property, the environment, and the economy. This is accomplished by detailed valley-wide evacuation planning and dedicated support to all involved emergency responders and their agencies. MMAA's vision is to prepare Big Bear Valley citizens, tourists, businesses, and governments to maximize their resistance to disaster through preparedness, mitigation, response, and recovery activities. BVES shall be an active member of MMAA and shall actively participate in the MMAA meetings and activities. This is especially important in establishing strong personal business relationships with key players and stakeholders in the community such that during an emergency event, the BVES Team is working with stakeholders it is already familiar with. **Table 3-2** provides a listing of the MMAA current membership. The Utility Manager shall be responsible for managing MMAA mutual aid agreement and shall ensure processes are in place and applicable Operations Staff are trained to:

- Coordinate activities with MMAA.
- Request support and resources of MMAA members.

MMAA has the ability to provide a wide range of direct support to BVES restoration activities during emergency response including traffic controls, road-clearing services, coordination with local government agencies, other utilities, and other nongovernmental organizations, and communications with the public. Additionally, one of the most significant strengths of MMAA is its ability to coordinate through its member organizations support and relief for customers experiencing extended sustained major power outages. This may include health and welfare checks, shelters, meals, cooling centers, restroom and shower stations, etc.

Table 3-2: Bear Valley Mountain Mutual Aid Association Membership

Organization		
• City of Big Bear Lake • Big Bear Fire Department • San Bernardino County Fire • San Bernardino County Department of Public Health • San Bernardino County Office of Emergency Services (OES) • San Bernardino County Sheriff's Department • San Bernardino County Transportation Authority • San Bernardino County Emergency Communications Service (ECS) • U.S. Forest Service • California Highway Patrol • California Department of Transportation	• Big Bear Airport • Big Bear City Community Services District • Big Bear Lake Department of Water & Power • Big Bear Lake Municipal Water District • Big Bear Area Regional Water Authority • Bear Valley Electric Service, Inc. • Southwest Gas • Bear Valley Community Healthcare District • Bear Valley Unified School District • Mountain Area Regional Transit Authority	• Bear Mountain Ski Resorts • Big Bear Chamber of Commerce • Big Bear Lake Resort Association • Big Bear Valley Recreation & Park District • American Red Cross • Big Bear Community Emergency Response Team (CERT) • Big Bear Valley Community Organizations Active in Disaster (COAD) • Big Bear Valley Voluntary Organizations Active in Disaster (VOAD) • Civil Air Patrol • Salvation Army

3.9. **Communications Layers and Message Deck.** Communications with stakeholders and customers during emergency response is one of BVES' top three priorities. The Customer Service Supervisor with the support of the Customer Program Specialist shall ensure the following:

- Multiple layers of communications are established to reach customers. These should include agreements with local media (newspaper, internet news, radio stations, etc.), BVES Website, BVES social media, Interactive Voice Response (IVR) System, email blast, etc.
- Training applicable staff and testing all of the established communications layers.
- Leveraging the communications platforms available to other stakeholder organizations. For example, the Big Bear Chamber of Commerce has an email blast channel to its member businesses and the City of Big Bear Lake has an email blast channel to many of its residents.
- Developing pre-approved message templates that properly guide staff preparing communications to customers and stakeholders with the necessary information to provide a useful update. For example, pre-staged press releases, website messages, social media messages, IVR messages, etc. on sustained outages may be prepared well in advance of any emergency with "fill-in-the-blanks" for the specific event.

3.10. **Staff Roster and Recall List.** A critical component of successfully implementing the EDRP is the ability to rapidly recall staff as need. Therefore, it is critical that contact information for each staff be maintained up to date and be made available to staff that would execute the recall.

3.10.1. The Administrative Support Associate is responsible for maintaining and updating the BVES Staff Roster and Recall List. This list shall be filed in Appendix D, BVES Staff Roster and Recall List, to the EDRP. This list shall be reviewed for accuracy each quarter by the Administrative Support Associate and updated as needed.

3.10.2. When new staff join or staff terminate their employment at BVES, the Administrative Support Associate shall update BVES Staff Roster and Recall List.

3.10.3. Additionally, when staff change their contact information, it is essential that they inform their Supervisor and the Administrative Support Associate so that the recall roster may be updated.

3.10.4. The recall roster should include at a minimum employee name, home phone, mobile phone, personal email, and address. It is critically important that the roster have a phone number where the employee may be contacted at any time. The address is important because in a major storm it may be safer and more efficient to send a BVES vehicle to pick up staff to respond to the EDRP and staff up the EOC. Personal email is important because an initial group email blast may be sent to set in motion mobilization of the EOC, while calling each staff member is pursued.

3.10.5. The Administrative Support Associate shall develop and update as necessary a group email address for staff using both their personal and work email addresses for recall purposes.

3.11. **Key External Contacts List.** BVES' ability to contact external stakeholders and resource providers is critical to successfully executing EDRP restoration activities.

3.11.1. The Administrative Support Associate in coordination with Managers and Supervisors shall develop the Key External Contacts List and file the list in Appendix E, Key External Contacts List. The list shall be in tabular format and at a minimum include the following information:

- Key External Contact Entity Name
- Point of Contact
- Contact phone numbers including afterhours numbers
- Email
- Main Office location
- Category of Key External Contact per Table 3-3

The list shall be reviewed and updated by the Administrative Support Associate each quarter.

3.11.2. Managers and Supervisors should provide the Administrative Support Associate updates to the Key External Contacts List as changes occur.

3.11.3. Table 3-3 provides the minimum key external contact categories that should be included in the Key External Contacts List.

Table 3-3: Key External Contacts

Category
• State government, agencies and departments
• Local government, agencies and departments
• Critical Customers
• Public Safety Partners
• Utilities
• Non-governmental organizations (business and community organizations; volunteer relief and aid groups; other disaster relief entities)
• Media groups

3.12. **Emergency Operations Center and BVES Main Facility.** Readiness of the EOC and BVES Main Facility to support EDRP restoration activities on short notice is an essential element to successfully executing the EDRP.

3.12.1. The Utility Manager is responsible for ensuring readiness of the EOC as detailed in Section 2.3. Appendix A, EOC Preparedness Checklist, provides a list of equipment, capabilities, materials and supplies that should be available to the primary EOC. The Operations Group should be familiar with this checklist and be trained on setting up the EOC.

3.12.2. Each Manager and Supervisor is responsible for ensuring that facilities and resources under their responsibility are ready to support the EDRP restoration activities.

3.12.3. The Accounting Supervisor is responsible for ensuring the BVES Main Facility is ready to support sustained EOC and EDRP operations to include stocking consumables for EOC and restoration activities, providing staff on-site meals, water and other necessary habitability amenities.

4. Emergency Response Procedures.

4.1. **Emergency Response Plan Implementation and Emergency Operations Center Activation.** BVES responds to emergencies and outages based on the resource requirements to properly resolve the situation in a safe, timely, efficient and effective manner. When the restoration efforts are beyond the capabilities of the normally assigned Field Operations staff and normal Customer Service resources, the EDRP should be implemented.

4.1.1. Response Levels. There are three basic outage response levels that BVES uses. Level 1 and 2 pertain to the EDRP and Level 3 refers the normal BVES working hours and afterhours Field Operations and Customer Service outage response procedures and processes. When the EDRP is activated, Level 1 or 2 are used to describe level of EOC activation and restoration response process. Level 3 is the normal Service Crew (or Dutyman for afterhours) response process to outages and system problems during the course of normal T&D operations. The response levels to outages and emergencies are summarized in Table 4-1.

Table 4-1: BVES Outage and Emergency Response Levels

Response	Event Type	Action	Comments
Level 1	High Risk Long-term*	EOC fully activated EDRP processes implemented	It is preferred to fully activate EOC and then shift to Level 2 activation, if full response determined to not be necessary.
Level 2	Moderate Risk Short-term	EOC partially activated EDRP processes implemented	Level of EOC activation and EDRP implementation as directed by Utility Manager.
Level 3	Low Risk Short-term	Normal Service Crew/Dutyman and Customer Service processes	These events are normally within the capability of assigned Service Crew or Dutyman to resolve with the normal on call resources.

*Long-term is generally defined as 12 hours.

4.1.2. Plan Activation. The President shall direct activation of the EDRP and, therefore, the EOC and shall also direct the applicable response Level. The President should consider the following in evaluating whether or not to implement the EDRP and, if the EDRP is to be implemented, to what Level (1 or 2) to activate the EOC:

- Will resources beyond BVES' normal outage response posture be required and to what extent? Will external resources (mutual aid and/or contracted services be required)?
- Will the restoration efforts be long-term (generally 12 hours or greater)? If long-term, how long?
- Will the restoration efforts be more efficient if the BVES staff is organized for around the clock customer service and field operations?
- Will the restoration efforts require increased management and logistics support beyond that of the Field Operations Supervisor?
- Is the outage (or high potential for outage) expected to have significant impact on BVES customers and/or stakeholders?

- Will rapid and close coordination be required with other government and agencies directing response actions to an emergency (for example, Incident Commander for a wildfire in or adjacent the BVES service area)?
- Will communications efforts require increased and dedicated resources beyond the normal Customer Service communications posture?

4.1.2.1. In considering the above factors, the President shall drive to ensure that the BVES response is at the appropriate level to achieve a safe, timely, and prudent allocation of resources in the best interest of customers and other stakeholders.

4.1.2.2. The EDRP will be directed in response to an extended outage as a result of proactive de-energization (public safety power shutdown) to shut off power in high risk areas when extreme fire conditions present a clear and imminent danger to public safety. The focus of implementing the EDRP in this circumstance would be to improve coordination with local government and agencies and provide affected customers relief resources generally through mutual aid (MMAA) as needed. Specific public safety power shutdown procedures are provided separately in the BVES Public Safety Power Shutdown Plan.

4.1.2.3. The President shall direct activation of the EOC in situations where an outage has not yet occurred but the likelihood is significant. An example of a high risk situation is a wildfire that has not yet resulted in outages but has the potential to do so and/or may require rapid and close coordination with the Fire Incident Commander.

4.1.2.4. It is generally preferred to fully activate EOC and then shift to Level 2 activation as conditions warrant. By bringing in the full EOC organization, the staff can be briefed on the situation and then stood down with specific instructions tailored to the Level 2 response requirements.

4.1.2.5. When the EOC is directed to be activated, the President shall designate staff to utilize Appendix D, BVES Staff Roster and Recall List, to alert employees to staff the EOC. Additionally, a group email should be sent out to staff using their work and personal email address.

4.1.2.6. When the EDRP is implemented for training, such as for the annual drill, the Utility Manager shall put controls in place to prevent drill activities from interfering and/or confusing staff, customers, and stakeholders with real-world BVES operations.

4.2. **Essential Elements of Information (EEI).** EEIs are key information that the Incident Commander and EOC Group Leaders need in order to make timely and informed decisions on emergency response. The EEIs listed in Table 4-2, Essential Elements of Information, are critical to the BVES Emergency Leadership Team's ability to assess the emergency situation and decision making in emergency response. Therefore, obtaining this information and continually updating it must be a priority for all staff assigned to the emergency response efforts.

Table 4-2: Essential Elements of Information

EEI	Remarks
Potential hazards that impact the safety and health of BVES employees, contracted and mutual assistance personnel, first responders, and the public	**Safety is our top priority.** Therefore, it is vitally important to identify potential hazards so that resources may be properly allocated to assessing, mitigating and eliminating the hazards.
Updated common operating picture based on indications and sensors, forecasts, and the accumulation of information from the field	Maintaining a common operating picture is a primary function of the EOC staff so that each Group is able to provide a coordinated and collaborative uniform response to the emergency. Additionally, the common operating picture leads to consistent messaging with customers and stakeholders based on the best available information.
Facility and equipment assessments and operational impacts to BVES' business operations • Status of Power Delivery Systems o 34.5 kV sub-transmission system o Substations o Distribution system • Status of Power Supply (**Cause of supply disruptions and estimated time of restoration**) o SCE Supplies from Goldhill o SCE Supply from Redlands o Bear Valley Power Plant • Status of Communications o Internet connectivity o SCADA network o BVES work radios o Land line phones o Cell phones o Internal network connectivity o Weather station network o BVES Website o BVES Social Media • Status of IT Applications o CC&B o IVR/two-way text o OMS o GIS applications o SCADA • Status of facilities, equipment, and materials o Emergency Operations Center o BVES Main Office o BVES Yard o Work trucks and vehicles o Poles, wire, transformers and other material	Identifying causes of power delivery system (T&D) outages and supply disruptions is essential to determining the proper restoration actions to be taken. Maintaining accurate status as conditions in the field change and restoration activities progress throughout the emergency response is key to ensuring restoration resources are properly allocated and optimized at all times. Developing **estimated time of restoration (ETR)** is critical information that our customers and stakeholders need in order for them plan their responses and mitigations to the outage. ETRs must be updated as they change. Communications are often the weak link in emergency response. During an emergency some communications may be degraded and alternate systems may be necessary. Therefore, understanding the status of communication systems is critical to ensuring connectivity with field crews, damage assessment teams customers, and stakeholders. Many utility activities rely upon IT systems for rapid and efficient response. These systems are also susceptible to degradation during an emergency and workarounds may be necessary. Therefore, identifying IT problems and/or limitations is vital to directing effective restoration activities. As a result of the emergency or for other reasons, facilities and equipment may be degraded and material availability may be limited. Therefore, knowing the status of facilities, equipment, and materials is essential to developing restoration actions.
Status of contracted and mutual aid assistance requests	Outside line crew assistance, tree trimming services, crane support, snow removal services, civil construction services, and other outside assistance is often critical to successfully executing restoration activities. Therefore, is critical to fully understand: • Which entity (or entities) are providing resources? • What specific resources they are providing (equipment and personnel)?

EEI	Remarks
	• How and when will they arrive at BVES's service area? • What logistic support will they require?
Limitations on access and transportation due to flooding, roadway damage, debris, or other closures	Access to BVES's service area under normal circumstances is limited. During an emergency, it is plausible that some or all of the access may be interrupted, which will significantly impact the ability to bring resources to BVES. Additionally, access to certain areas within the service area may be severely impaired due to the emergency. Therefore, it is critical that the EOC Team fully understand access limitations and have backup plans in place.
Interdependencies between BVES, government agencies, other utilities (water, gas, and electric), and critical infrastructure	Outages may have significant impact on government agencies, other utilities (water, gas, and electric), and critical infrastructure; especially, when their backup systems fail. Therefore, the EOC Team must be fully aware of how outages are impacting the area and coordinate a prioritized restoration plan that fully considers the above.
BVES staff supporting other agencies (for example, Incident Commander representative)	Imbedding a BVES representative with the on scene Incident Commander and/or local government EOCs (City or County) has proven to be highly effective in coordinating emergency response actions. The EOC Team must communicate frequently with the imbedded BVES representative to ensure coordinated and uniform emergency response.

4.3. **Restoration Strategy.** Outage events and emergencies are rarely similar in all respects; therefore, this general restoration strategy is constructed to provide the EOC Team with a scalable and flexible restoration strategies that can be employed as required to deal with the unique aspects of each major outage and emergency event.

4.3.1. Restoration Strategy Assumptions. Restoration strategies and guidance in the EDRP assume that the BVES system is in its **normal winter line-up** as follows:

- Bear Valley Power Plant (BVPP) is available for normal full power operations (8.4 MW).
- Goldhill SCE sub-transmission power lines and facilities from Cottonwood (Doble, Cushenberry, Goldhill Switch Station, and Ute 1 & 2) are fully operational and connected to the BVES system at the Shay and Baldwin Auto-Re-closers (34 MW).
- Radford SCE sub-transmission power lines and facilities from Zanja are fully operational and connected to the BVES system at the Radford Auto-Re-closer (5 MW).
- BVES T&D systems are in the normal system line-up.

Therefore, staff must ensure that when implementing guidance provided in the EDRP that they fully understand the current line-up of the BVES system and, if there are deviations to the normal winter line-up, they must properly account for these deviations in their restoration actions. It should be noted that under normal conditions, the Field Operations Supervisor

controls the system line-up and during EOC activation the system line-up is controlled by the SOS.

4.3.2. Restoration Priorities. The Utility Manager shall direct the specific restoration priorities keeping safety (public and worker) as the top priority. In most cases, based on best available information regarding the situation and available restoration resources, resources shall be dispatched to restore systems to achieve the following restoration priorities:

- **Public safety** in the affected areas;
- **Worker safety** in performing the restoration work;
- **Critical infrastructure** Sheriff's Department, hospital, Fire Department, key City & County facilities, other utility facilities (water, sewage, gas, communications), Airport, Traffic Control, Incident Commander Site, Incident Base Camp, Incident Evacuation Centers, communications (Spectrum and various cell providers), radio stations;
- Major commercial activities critical to **continuity of community services**: gas stations, food stores, supply stores, repair shops, eateries and lodging facilities to support outside first responders (CAL FIRE), as well as financial institutions.
- **Medical Baseline Customers** and **Access and Functional Needs Customers**
- **Number of customers** affected; and
- **Length of time** customers have been without power;

4.3.3. Restoration Progression. In directing restoration efforts to achieve the priorities of Section 4.2.2 above, the Operations Group shall generally find it most efficient to dedicate restoration resources to restoring the following types of facilities in the prescribed order to optimally restore electric service:

- Energy supply sources Southern California Edison (SCE) supply lines, Bear Valley Power Plant (BVPP), etc.
- Sub-transmission circuits (34.5 kV)
- Substations
- Distribution circuits (4 kV)
- Feeders
- Distribution transformers
- Individual customer service lines

Taking into account restoration priorities and progression, Table 4-3 below provides guidance on the restoration priorities for sub-transmission circuits, substations, and distribution circuits. This guidance must be tempered by many factors including the actual cause of the outage(s), available resources, time to conduct repairs, access to repair sites, etc. Therefore, the Utility Manager must have wide discretion when developing the specific restoration priorities and may choose to deviate from the general guidance.

Table 4-3: Restoration Priorities for Sub-Transmission Circuits, Substations, and Distribution Circuits

Priority	Sub-Transmission Circuit	Substation	Distribution Circuit	Comments
1	Baldwin	Meadow	Garstin	• Key critical infrastructure. • Connects BVPP
2	Shay/Radford	Pineknot Village Maltby Division	Interlaken Boulder Harnish Country Club Georgia Paradise Erwin Lake Castle Glen	• Additional critical infrastructure • Major commercial activities & airport • Large number of residential customer.
3	NA	Moonridge Maple Bear City Fawnskin Palomino	Eagle Lagonita Fox Farm Clubview Sunset Goldmine Holcomb Pioneer Sunrise	• Mostly residential customers
4	NA	Bear Mountain Summit Lake	Geronimo Skyline Lift Pump House	• Mostly interruptible customer.

4.3.4. Loss or Significant Reduction of Energy Supply. BVES normally imports all of the supplies necessary to meet customer demand via SCE power lines and augments the supplies using the BVPP when the maximum capacity from the SCE Cottonwood lines are reached. Table 4-4 provides information on BVES system sources of power.

Table 4-4: BVES System Sources of Power

Source	Capacity	Comments
Goldhill: Includes SCE lines and facilities from Cottonwood (Doble, Cushenberry, Goldhill Switch Station, and Ute 1 & 2).	34 MW	Connected to the BVES system at the Shay and Baldwin Auto-Re-closers
Radford: Includes SCE line (Bear Valley) and facilities from Zanja.	5 MW	Connected to the BVES system at the Radford Auto-Re-closer
Power Plant: Includes Bear Valley Power Plant (BVPP) generation equipment and facilities.	8.4 MW	Seven 1.2 MW natural gas fired engines
Net Energy Metering & Distributed Energy Resources	3.3 MW	Distributed throughout system. Limited to day-light production only

Table 4-5 provides guidance on some of the more likely loss of energy supply scenarios to the BVES Service Area. Each of these scenarios assumes a complete loss of the affected power source(s). However, it should be realized that it is also possible that certain power sources may be degraded providing some limited capacity instead of being completely lost. In these cases, the Operations Group should follow the framework provided in Table 4-5 modified to take into account the limited supply capacity of the degraded power source(s).

Table 4-5: Actions for Loss of Supplies

Actions	Loss of all SCE Supplies (Goldhill & Radford)	Loss of SCE Goldhill Supplies	Loss of SCE Radford Supply	Loss of BVPP
Contact and coordinate with SCE.	Call SCE Lugo Substation and SCE Control Center Colton. Obtain system status, actions in progress or scheduled and	Call SCE Lugo Substation. Obtain system status, actions in progress or scheduled and ETR.	Call SCE Control Center Colton. Obtain system status, actions in progress or scheduled and ETR.	NA

Actions	Loss of all SCE Supplies (Goldhill & Radford)	Loss of SCE Goldhill Supplies	Loss of SCE Radford Supply	Loss of BVPP
	estimated time of restoration (ETR).			
Assess situation	Based on ETR for all or partial energy supplies and demand, take all or some of the actions specified below as appropriate.	Based on ETR for all or partial energy supplies and demand, take all or some of the actions specified below as appropriate.	If situation is long-term, work with interruptible customers to coordinate timing of their loads to reduce or eliminate interruptions.	If situation is long-term, work with interruptible customers to coordinate timing of their loads to reduce or eliminate interruptions.
Activate EOC	Yes – Level 1 Event	Yes – Level 2 Event	No – Level 3 Event	No – Level 3 Event
Switching Operations	Line-up system for BVPP Black Start Procedures	Express Radford to Meadow.	Shift Village Substation to Shay Line	NA
Dispatch BVPP	Execute BVPP Black Start Procedures and Start up Enginators one at a time being careful to not exceed the load capacity.	Start up Enginators one at a time being careful to not exceed the load capacity.	Start up Enginators as needed based on load.	Conduct actions to repair BVPP.
Interrupt interruptible customers	Will be required to meet demand.	Will be required to meet demand.	Possibly required to meet demand. Work with customers to coordinate demand to reduce or eliminate interruptions.	Possibly required to meet demand. Work with customers to coordinate demand to reduce or eliminate interruptions.
Rolling blackout procedures	Will be required to meet demand.	Will be required to meet demand.	Not likely required.	Not likely required.
Contract emergency mobile generation	Consider based on ETR if greater than 24 hours.	Consider based on ETR if greater than 24 hours.	Not likely required.	Not likely required.
Public Engagement	Work with community and stakeholder to reduce non-essential loads. Keep customers and stakeholders informed of ETR and rolling blackouts.	Work with community and stakeholder to reduce non-essential loads. Keep customers and stakeholders informed of ETR and rolling blackouts.	Not likely required.	Not likely required.
Compliance reporting	Conduct CPUC Major Outage Report per GO-166 due to greater than 50% of customers experiencing outage.	Conduct CPUC Major Outage Report per GO-166 due to greater than 50% of customers experiencing outage.	Conduct CPUC Major Outage Report per GO-166 if media coverage expected or occurs.	Not likely required.
Load forecasting	Energy Resources to provide detailed hourly forecasts and make recommendations to support load with BVPP and mobile generation.	Energy Resources to provide detailed hourly forecasts and make recommendations to support load with BVPP and mobile generation.	Energy Resources to provide detailed hourly forecasts and make recommendations to support load without Radford Line.	Energy Resources to provide detailed hourly forecasts and make recommendations to support load without BVPP.

4.3.5. Downed Wire Response. During a major storm, BVES may receive many trouble calls reporting primary and service lines down throughout the service area. Wires down that present an imminent fire or electrocution hazard or are identified as being primary distribution line voltage shall receive top priority. In general, higher priority shall be assigned to calls involving wires blocking state highways or wires down on buildings or vehicles. Personnel investigating downed wire shall determine the wire type (primary, secondary or service conductor) and take actions as directed by the SOS and per Table 4-6, Downed Wire Response.

Table 4-6: Downed Wire Response

Conductor	Action
Primary	

Conductor	Action
	• If a fire has started or the threat of fire is imminent, call 911 and then call the SOS to have the circuit de-energized by the most rapid means possible (this may require dropping the main BVES supply transmission lines remotely). • Warn others to stay clear. • Isolate the area by setting up CAUTION tape and traffic cones and barriers. • Call into the EOC the exact location (address and pole numbers). • If wire is energized, but not a fire threat stay at site until Lineman Crew takes over or the line is de-energized. • Once line is de-energized, area isolated and/or Lineman Crew onsite, proceed to next location as directed by SOS.
Secondary	• If a fire has started or the threat of fire is imminent, call 911 and then call the SOS to have the circuit de-energized by the most rapid means possible. • Warn others to stay clear. • Isolate the area by setting up CAUTION tape and traffic cones and barriers. • Call into the EOC the exact location (address and pole numbers). • If wire is energized and located near a school, high pedestrian area, on a main roadway, or near a conductive structure, but not a fire threat stay at site until Lineman Crew takes over or the line is de-energized. • Once line is de-energized or it is determined that the area is low risk and the area isolated and/or Lineman Crew onsite, proceed to next location as directed by SOS.
Service	• If a fire has started or the threat of fire is imminent, call 911 and then call the SOS to have the circuit de-energized by the most rapid means possible. • Warn others to stay clear. • Isolate the area by setting up CAUTION tape and traffic cones and barriers. • Call into the EOC the exact location (address and pole numbers). • If wire is energized and located near a school, high pedestrian area, on a main roadway, or near a conductive structure, but not a fire threat stay at site until Lineman Crew takes over or the line is de-energized. • Once line is de-energized or it is determined that the area is low risk and the area isolated and/or Lineman Crew onsite, proceed to next location as directed by SOS. • If the line is disconnected from the pole, it is not necessary to isolate the area. Simply call the situation into the EOC and proceed to next location as directed by SOS.

4.3.6. Sub-Transmission and Distribution (T&D) Casualties. The most common cause of outages for the BVES services area are casualties to T&D facilities resulting in a major outage, multiple outages of varying sizes, and/or some combination thereof. Restoration from these outages is mostly dependent on the available resources, which can quickly be overwhelmed if not properly managed.

4.3.6.1. The Operations Group shall prioritize restoration activities and resource allocation according to the general priorities identified in Section 4.3.2 and shall restore T&D facilities in the order listed in Section 4.3.3 to achieve these priorities. In establishing restoration priorities, public and worker safety is always the top priority.

4.3.6.2. SOS balances efforts to conduct repairs while attempting to restore service to as many customers as possible by isolating the damaged facilities to as close to the damage as feasible with the goal of minimizing the number of customers affected by the outage. The SOS should evaluate the time to isolate the damage and restore service to some customers against the estimated time to repair the damage and restore power to all customers. The most efficient and effective course of action shall depend on the extent of damage, availability of resources to conduct repairs, and availability of resources to perform switching operations.

4.3.6.3. Once damaged facilities are identified to the Operations Group, the SOS shall have the facilities field checked by the Damage Assessment Team (DAT) or by other competent staff, such as nearby field crews, to determine the extent of required repairs needed as well as the ability to isolate the damage and restore power to as many customers as possible.

4.3.6.4. Based on the results of the field check, the SOS shall:

- Determine the priority to repair the damages;
- Direct switching operations to restore power to as many customers as possible, if feasible;
- Determine the repair work scope (for example, temporary repair such as shoring up damaged facilities or permanent repair per BVES construction standards, etc.);
- Assign Engineering Planning resources as deemed necessary (for example, perform pole loading assessments for pole replacements);
- Schedule Field Crew resources as applicable;
- Direct assigned Field Crew to draw necessary materials and conduct repairs;
- Inform and periodically update the Public Information Group and Emergency Service Representatives so that they may keep customers and stakeholders informed; and
- Close out or cause to be closed out the applicable Field Activity.

4.4. **EOC and Emergency Response Workflows.** The EOC and emergency response workflows are designed to:

- Develop and maintain an accurate common operational picture.
- Continually assess damage and develop optimal restoration response.
- Dispatch resources for emergency restoration activities.
- Manage field activity reports.
- Keep customers and other stakeholders informed.
- Ensure restoration activities are properly resourced.

4.4.1. EOC Setup. The EOC shall be set up in accordance with Appendix A, EOC Preparedness and Setup Checklist. The Strategic Operations Supervisor in consultation with the Emergency Manager shall direct which applications are to be displayed on the available large screens and projector and how the white board shall be utilized. The displays should be optimized to provide EOC staff and decision makers an accurate common operational picture based on the best information available.

4.4.2. EOC Staffing. The following staff shall normally be present or represented as applicable in the EOC:

- Incident Commander
- Public Information Group
- Emergency Manager
- Strategic Operations Supervisor (SOS)
- System Monitor
- Damage Assessment Team (DAT) – when not assigned to the field

- Emergency Service Representative (ESR) – normally located in the Customer Service area to reduce noise level in EOC
- Engineering Technical Support
- IT Operations Support – normally located in IT spaces
- Logistics Group
- Planning Group
- Finance & Administration Group

4.4.3. Managing Field Activities. The Emergency Manager may find it useful to manage Field Activities by utilizing a spreadsheet to track each Field Activity by recording and sorting the following information:

- Field Activity Number
- Date
- Time
- Location
- Circuit
- Substation
- Status (Unassigned/Crew Assigned/Completed)
- ETR
- Grouping (often multiple Field Activities are resolved when a common fault/damage location is repaired)
- Customer call back
- Comments
- Other information as deemed necessary by the Emergency Manager

4.4.4. Workflows. The EOC shall process incoming damage reports and service request as Field Activities using the workflows shown in Appendix F, Emergency Response Workflows. The emergency response workflows are provided for Level 1 and 2 activations. For reference, the Level 3 (normal service response) is also provided. The Utility Manager may direct deviations to the workflows if it is determined that a more effective and efficient workflow process may be achieved. When conducting after action reviews for emergency response events as well as the annual Emergency Preparedness and Response Plan drill, the Appendix F, Emergency Response Workflows, should be evaluated for possible changes and improvements, and updated if deemed appropriate.

4.4.5. Situation Report. Developing a common operational picture is an important function of the EOC staff in order to ensure decision making is optimal. One essential tool in developing the common operational picture is to periodically update a Situation Report (SITREP). Appendix G provides an example SITREP. The SITREP should be updated by the SOS at least once per shift and more often if conditions are rapidly changing. The SITREP should be displayed in the EOC and sent to the Incident Commander, Public Information Group, EOC Group Leaders, Emergency Service Representatives, and others as deemed appropriate by the Emergency Manager.

4.4.6. Damage Assessments. The Damage Assessment Team(s) shall be dispatched from the EOC to investigate Field Activities and other damage reports. They shall complete a Damage Assessment form and provide it to the SOS. Appendix H provides a sample Damage Assessment Form. If they have several sites to visit, they may consider taking a picture of the completed form and sending to the EOC. Also, the DAT should take as many pictures needed to identify the damage and allow for the Engineering Team to plan the necessary repair work for the line crews. For example, the DAT should take pictures of any damaged equipment and facilities so that material may be pulled and staged for the line crews. Also, the DAT may make use of tools such as FaceTime to communicate with the EOC and provide the EOC a complete assessment of the damage conditions and the iRestore First Responder app to quickly make a basic report with location and a picture.

4.4.7. Work Orders. The SOS shall direct the use of Work Order jackets for the more complex repairs so that the scope of work performed and material and equipment utilized is properly documented. These Work Order jackets should include one-line diagrams and material sheets as applicable along with specific instructions from Engineering & Planning if warranted. Appendix I provides a sample Work Order Jacket.

4.5. **Resources.** Using best available information, the Utility Manager shall continually assess the following:

- Resources necessary to execute the restoration activities in a safe, effective and efficient manner;
- Available resources in the Service Area;
- Gaps in resource availability to execute the restoration activities in a safe, effective and efficient manner; and
- When resources from outside entities such as CUEA mutual aid and/or contracted resources may be released.

Based on the above assessments, the Utility Manager shall coordinate with the Logistics Group leader to request additional resources as necessary to fill resource gaps and to relinquish resources when no longer required. Possible resources in addition to BVES resources include CUEA mutual assistance, contracted services and Big Bear Valley Mountain Mutual Aid Association.

4.5.1. California Utilities Emergency Association (CUEA). The Utility Manager shall determine if gapped resources are best provided by utilizing the hCUEA Mutual Aid Agreement, which allows member utilities to request and obtain labor, materials, and/or equipment resources from other member utilities in a rapid manner on a reimbursable basis. The specific process for requesting and receiving mutual aid from member utilities is provided in the CUEA Mutual Aid Agreement. Table 4-7, CUEA Mutual Assistance Process, provides a summary of the process for requesting and receiving CUEA mutual assistance.

Table 4-7: CUEA Mutual Assistance Process

Process Step	Responsibility	Amplifying Comments
Determine if CUEA Mutual Aid **may** be required	Utility Manager	The Operations Group evaluates if CUEA resources may be required and if there is a possibility, this should be communicated to the Logistics Group.
Issue a "Mutual Assistance Inquiry Only"	Logistics Group Leader	Providing the CUEA Staff with a Mutual Assistance Inquiry Only allows the CUEA to alert member utilities so that they may evaluate which resources are available without incurring costs. This request is best made via email but it may also be made via phone call. The following information should be included in the inquiry: • BVES Contact Name • BVES Contact Phone Number • BVES Contact Email • Type of Emergency • Type of Assistance Requested • Desired Date & Time Needed • Additional Details or Comments
Determine that CUEA Mutual Aid **is** required.	Utility Manager	Obtain Incident Commander's authorization to proceed with CUEA mutual aid request and then, request Logistics Group make arrangements.
Issue a "Mutual Assistance Formal Request"	Logistics Group Leader	Send the CUEA Staff a Mutual Assistance Formal Request with following information: • BVES Contact Name • BVES Contact Phone Number • BVES Contact Email • Type of Emergency • Type of Assistance Requested • Desired Date & Time Needed • Additional Details or Comments This request is best made via email but it may also be made via phone call and then followed up by email.
Pre-arrival coordination	Logistics Group Leader	Once a member utility (referred to as "Assisting Party") agrees to provide resources, the Logistics Group shall work with the Assisting Party point of contact to facilitate all logistics arrangements to include mobilization through demobilization. Specifically, the following information should be obtained: • Date and estimated time of arrival of the Assisting Party resources • Name and contact information of the Assisting Party's Team leader • Names and contact information of the Assisting Party Team members • How lodging will be handled [1] • How meals will be handled [2]
Mutual Assistance Agreement Letter	Finance & Administration Group Leader	Once the pre-arrival information is verbally agreed upon, the Finance & Administration Group shall draft the Mutual Assistance Agreement Letter, route it to the Utility Manager and Logistics Group Leader for review and to the Incident Commander for approval signature. Appendix G, Mutual Assistance Agreement Letter, provides a sample letter.

Process Step	Responsibility	Amplifying Comments
Setup Assisting Party in BVES Accounts Payable System	Finance & Administration Group Leader	Coordinate with the Assisting Party to ensure they are able to invoice BVES in accordance with the CUEA Mutual Aid Agreement. Provide the Assisting Party invoicing instructions to ensure timely payments.
Mobilization	Logistics Group Leader	Coordinate with Assisting Party Team Leader and local facilities to ensure lodging is ready and assist in resolving any arrival issues such as providing information on access to Big Bear Lake, chain requirements and any other travel support (such as permission to pass through areas that may be closed to general public).
Arrival Meeting	Utility Manager and Logistic Group Leader	Upon arrival of the Assisting Party, the Utility Manager and Logistic Group Leader shall meet with the Assisting Party Team Leader, introduce key staff, and go over the following: • Safety procedures[3] • Coordination meetings[4] • Communications[5] • Work controls and construction standards[6] • Material usage[7] • Situation update[8]
Tour of Facilities	Utility Manager	Following the Arrival Meeting, the Utility Manager shall have a BVES employee provide the Assisting Party with a brief orientation tour of key facilities essential to supporting their work including the following: • EOC • Warehouse • Stockyard • Where to park trucks • Material disposal • Hazmat disposal • Other logistics support (for example, where to fuel trucks)
Demobilization and Departure Out Brief	Utility Manager and Logistic Group Leader	Ensure lodging checkout is completed and bills are paid. Copy receipts. Review material used by Assisting Party and resolve any documentation issues. Discuss any lessons learned or areas for improvement to allow the Assisting Party to be more effective in the future.
Compensation	Utility Manager and Accounting Supervisor	Coordinate with Assisting Party to review invoices in accordance with the CUEA Mutual Aid Agreement with all of the supporting documentation. The Utility Manager should be the approving manager for the invoices.

Notes:
[1]It is BVES's responsibility to make lodging arrangements; however, an Assisting Party may desire to make lodging arrangements on their own and be reimbursed per the Mutual Aid Agreement.
[2]It is BVES's responsibility to provide meals; however, an Assisting Party may desire to make meal arrangements on their own and be reimbursed per the Mutual Aid Agreement.
[3]Review BVES safety procedures to include tailboard policy and documentation, grounding policy, lock-out/tag-out policy, confined space policy and the BVES Accident Prevention Manual.
[4]Agree upon how the Assisting Party shall interact and receive direction on work from the Operations Group. Sometimes it might be efficient for the Assisting Party to have the Team Leader spend time in the EOC with the Operations Group and out in the field with the Assisting Party crews. Other options include having the Crew Forman check-in before and after each shift.
[5]Establish lines of communications with the Assisting Party Team Leader and crews. They may include cell phones and/or BVES provided radios.
[6]Brief the Assisting Party on BVES work controls including how work will be directed and construction standards used by BVES. Ensure Assisting Party understands what they are permitted to do and when they must seek Engineering approval for any deviations.
[7]Brief the Assisting Party on BVES material control and documentation procedures. Also, agree upon how to replenish truck stock.

Process Step	Responsibility	Amplifying Comments

[8]Brief the Assisting Party on the current situation, damage assessments and services that the Assisting Party shall be required to perform. This is an excellent opportunity to develop an initial game plan with the Assisting Party.

4.5.2. Contracted Services. Contracted Services as listed in Table 3-1 should be in place such they may be readily requested. The Utility Manager shall determine which contracted services are needed and the specific scope of work and provide this information to the Logistics Group Leader. The Logistics Group Leader shall contact the requested contracts and make the arrangements to receive the services. Appendix C, Contingency Contracted Services, provides contact information for anticipated contract services.

4.5.2.1. The Logistics Group shall work with the contractor(s) to establish the specific estimated time of arrival, mobilization and demobilization support needed, and the onsite contractor supervisor/foreman contact information.

4.5.2.2. Upon arrival of contracted crews, the Utility Manager, Field Operations Supervisor, and Logistic Group Leader shall meet with the contractor supervisor, introduce key staff, and go over the following:

- **Safety procedures:** Review BVES safety procedures to include tailboard policy and documentation, grounding policy, lock-out/tag-out policy, confined space policy and the BVES Accident Prevention Manual.
- **Coordination meetings:** Agree upon how the contractor shall interact and receive direction on work from the Operations Group. Sometimes it might be efficient for the contractor to have the supervisor spend time in the EOC with the Operations Group and out in the field with the contractor crews. Other options include having the Crew Forman check-in before and after each shift.
- **Communications:** Establish lines of communication with the Assisting Party Team Leader and crews. They may include cell phones and/or BVES provided radios.
- **Work controls and construction standards:** Brief the contractor on BVES work controls including how work shall be directed and construction standards used by BVES. Ensure contractor understands what they are permitted to do and when they must seek Engineering approval for any deviations.
- **Material usage:** Brief the Assisting Party on BVES material control and documentation procedures. Also, agree upon how to replenish truck stock.
- **Situation update:** Brief the contractor on the current situation, damage assessments and services that the contractor shall be required to perform. This is an excellent opportunity to develop an initial game plan with the contractor.

4.5.2.3. Following the Arrival Meeting, the Utility Manager shall have a BVES employee provide the contractor with a brief orientation tour of key facilities essential to supporting their work including the following:

- EOC
- Warehouse
- Stockyard
- Where to park trucks

- Material disposal
- Hazmat disposal
- Other logistics support (for example, where to fuel trucks)

4.5.2.4. Once the Utility Manager releases the contractor from providing further services, an out brief meeting shall be conducted with the contractor supervisor, Utility Manager and the Logistics Group Leader to ensure the following: lodging checkout is completed and bills are paid (if BVES handled mobilization); review material used by contractor and resolve any documentation issues; and discuss any lessons learned or areas for improvement to allow the contractor to be more effective in the future.

4.5.2.5. If a contract is not in place for contracted services that are determined to be necessary for emergency response actions, the Utility Manager may direct, with the President's prior approval, that emergency contracting procedures per the BVES's procurement policy be executed to the obtain the required services. Any verbal service requests should be followed up as soon as feasible in writing (normally by email) by the Logistics Group with the applicable contractor. The email should include the scope of work and price. This should then be followed up with the appropriate procurement documents (for example, contract, service purchase order, etc.).

4.5.3. Big Bear Valley Mountain Mutual Aid Association ("MMAA"). While MMAA does not have power line construction and repair resources, they do have access to significant support resources including traffic controls, road clearing services, coordination with local government agencies, other utilities, and other nongovernmental organizations, and communications with the public. Additionally, one of the most significant strengths of MMAA is its ability to coordinate through its member organizations support and relief for customers experiencing extended sustained major power outages. This may include health and welfare checks, shelters, meals, cooling centers, restroom and shower stations, etc. Therefore, when the Utility Manager determines that some of these resources are needed, he/she shall inform the Logistics Group Leader who shall coordinate with MMAA in accordance with the MMAA Agreement to request and obtain the desired resources. Coordination with MMAA supplied resources should include Point of Contact, resource estimated time of arrival, appropriate briefings and facility tours by the Operations Group (use the guidance in Section 4.3.1), and agreement on reimbursement if applicable.

4.6. **Catastrophic Events Memorandum Account (CEMA).** CEMA is a process to establish an account to allow utilities to recover the incremental costs incurred to repair, restore or replace facilities damaged during a disaster declared by the appropriate federal or state authorities. If a catastrophic event is declared a state of emergency by the state or federal government, then utilities can record costs caused by the event in this memorandum account. It should be noted that the utility cannot record or request recovery of costs incurred before the date the event is declared a state of emergency. By recording these costs, the utilities can later ask for recovery of these costs from the Commission. The CPUC then reviews these costs and approves them as appropriate.

4.6.1. Anytime the EDRP is activated, accurate records of expenses, labor hours, materials and other costs incurred during the recovery from the disaster shall be maintained such that the

incremental costs of recovery efforts may be documented in the event CEMA is invoked. The Finance and Administration Group shall provide specific guidance to Staff to ensure accurate records are maintained. Note that often a state of emergency is declared after the event and recovery have transpired, so each EDRP activation should be treated as a CEMA event.

4.6.2. The President shall coordinate with the Regulatory Affairs Manager to ensure that after a state of emergency occurs and BVES begins booking costs resulting from the event, that a letter is sent to the CPUC Executive President within 30 days. The letter shall provide not only the details of the disaster but also an estimate of the costs to be incurred. The Finance and Administration Group shall develop the estimate for the letter with input from the Operations Group.

4.6.3. Regulatory Affairs Manager shall request cost recovery of the CEMA in a formal proceeding. The Utility Manager with assistance from Accounting Supervisor shall provide the necessary details to support Regulatory Affairs in the CEMA filing.

4.7. **Evacuation.** In the event public officials declare an evacuation order, for all or parts of the Big Bear Valley area, staff's first priority is to address the immediate needs and safety of themselves and family, and once that is taken care of then each employee has a role to play as follows.

4.7.1. Critical Workers**.** Certain staff are considered Critical Workers and are issued an Emergency Pass by the San Bernardino County Sheriff's Department. The Emergency Pass is only to be used for BVES work and in accordance with local authority instructions. The Emergency Pass should never be used for personal reasons. BVES Critical Workers are:

- President
- Utility Manager
- Field Operations Supervisor
- Utility Engineer & Wildfire Mitigation Engineer
- Senior Technical Operations Support Specialist
- All Linemen
- Field Inspector
- Substation Technician
- Meter Technician
- Power Plant Operators
- Other staff as designated by the Utility Manager

Every two years the Administrative Support Associate shall request new Emergency Passes for the BVES staff classified as critical workers. Also, when new staff arrive the Administrative Support Associate shall obtain an Emergency Pass for them if they are classified as critical workers.

4.7.2. Evacuation Order. In the event government authorities declare an evacuation order for the Bear Valley area, all staff shall follow the evacuation procedure. For partial evacuation orders, the Utility Manager shall evaluate the extent and impact of the partial evacuation and determine if this procedure should be executed and if modifications to the procedure are

warranted. For example, an evacuation order for Fawnskin only would likely result in BVES implementing its EDRP and staffing its EOC, the evacuation procedures would likely not need to be executed.

4.7.2.1. *Utility Manager* shall:

- Direct all non-evacuated staff actions.
- Implement the EDRP.
- Consult the local government Incident Commander (IC) and/or applicable Emergency Operations Center (City of Big Bear Lake or San Bernardino County OES) and determine the desired condition of the distribution system and any support needed.
- Place the distribution system in a safe condition while supporting as practicable the IC's efforts.
- Determine the necessary support staff required to safely operate the system and in consultation with the local government IC where they should be located. If the local government IC determines support staff may safely be located at the BVES Main Office, then that is preferred. If it is not safe to remain at the BVES Main Office, the BVES support staff shall relocate to the Base Camp being utilized by the IC or other designated area as agreed upon by the IC.
- Inform the President of the plan.
- Provide instructions to Critical Workers.
- Release any staff who are no longer needed and direct them to safely evacuate.
- When the evacuation order is lifted, direct restoration activities as needed and the return to normal operations.

4.7.2.2. *Staff classified as Critical Workers* shall:

- Report to the designated area as directed by the Utility Manager. Support staff relocating to the Base Camp or other designated area shall bring utility trucks and equipment as determined necessary by the Utility Manager.
- Dispatch to perform tasks as directed by the Operations Group. BVES staff dispatched to perform tasks in the evacuated areas shall always perform these tasks in at least pairs and shall conduct a communications and status check with the Operations Group at least hourly.
- BVES Staff representative should be assigned to the IC's Base Camp to coordinate any support needed. BVES Representative assigned to the local government IC Base Camp or an EOC shall be designated by the Utility Manager, knowledgeable of the BVES distribution system, and have direct access to the Utility Manager such that IC and/or EOC requests are not delayed.
- Consideration shall also be given to providing BVES Staff representative to supporting Emergency Operations Center (City of Big Bear Lake or San Bernardino County OES).
- Released critical workers in the affected areas should evacuate in a safe manner off the mountain in a safe and orderly manner following local authority instructions. Report to the General Office in San Dimas, CA or other area as designated by the Energy Resources Manager.

4.7.2.3. *Non Critical Worker Staff* in the affected areas should evacuate in a safe manner off the mountain in a safe and orderly manner following local authority instructions. Report to the General Office in San Dimas, CA or other area as designated by the Energy Resources Manager.

4.7.2.4. *Energy Resources Manager* shall:

- Direct all evacuated staff actions.
- If the General Office is not to be used as the evacuation point, designate a suitable area for evacuated staff to gather.
- Perform an accounting of the whereabouts of all BVES staff. Inform the President.
- Setup remote support EOC and establish the Planning, Logistics, and Finance & Administration Groups with available staff.
- Establish continuous and reliable communication lines with Operations Group remaining in the service area.
- Provide resources as requested by the Operations Group.
- Provide updates to President, Regulatory Affairs, and Senior GSWC Staff.
- Make preparations to obtain utility mutual assistance via the California Utilities Emergency Association (CUEA) and/or contracted Linemen as determined necessary by the Operations Group.
- When the evacuation order is lifted, coordinate with the President and Utility Manager the orderly and safe return of staff to the service area.

4.7.2.5. *Customer Supervisor* shall:

- Establish remote customer service support.
- Update public information media as applicable (press releases, website and social media updates, IVR messages, etc.).

4.8. **End State.** The Utility Manager shall direct the transition from emergency response operations under this plan (Level 1 or 2) to normal operations (Level 3) when the following conditions are met:

- BVES system is no longer at risk for continued disruptions due to the incident.
- BVES power supplies are have been restored to meet service area load demand and are evaluated as reliable.
- BVES sub-transmission system is restored to meet service area power delivery needs and is evaluated as reliable.
- BVES substations and distribution systems are restored to meet service area power delivery needs and are evaluated as reliable.
- Response crews have been demobilized.
- System issues and problems are within the normal Level 3 response capabilities.
- Long-term customer support has been established as necessary (for example, following a declaration of a state of emergency because a disaster has either resulted in the loss or

disruption of the delivery or receipt of utility service and/or resulted in the degradation of the quality of utility service) and is capable of being properly managed by the normal supervisory element.

Generally, the transition from Level 1 shall be progressive to Level 2 as emergency response requirements wind down and then to Level 3.

4.9. **After Action Reports.** Once the incident is officially terminated, the Utility Manager shall schedule and conduct formal hot washes/debriefing sessions with applicable staff and have an After Action Report prepared. The After Action Report should include:

- Dates/times of the incident
- Description of the incident
- Level of plan activation and if the EOC was staffed
- Records of public communications that were performed
- List of damages to system
- List of personal deaths, injuries, and other accidents associated with the incident
- List of external (contracted and mutual aid) resources utilized
- Develop incremental cost of emergency response actions
- Lessons learned
- Evaluation on whether or not the plan was properly followed
- Specific improvement actions including assignment of responsibility to complete and due date

A thorough follow-up includes reviewing all plans and procedures, making the necessary revisions from lessons learned, and ensuring distribution to all stakeholders/plan holders.

4.10. **Annual Emergency Response Plan Training and Exercise.**

4.10.1. Annual Training. The Utility Manager shall conduct staff training for designated personnel on the Emergency Response Plan in preparation for emergencies and major outages each year just before the winter storm season; typically, in September or October. The training shall be designed to overcome problems identified in the evaluations of responses to a major outage or exercise and shall reflect relevant changes to the plan.

4.10.2. Annual Exercise. The Utility Manager shall conduct an exercise annually using the procedures set forth in this emergency plan. If the BVES uses the Emergency Response Plan during the twelve-month period in responding to an event or major outage, the annual exercise is not required for that period. However, the Utility Manager should also evaluate whether or not staff would benefit from the exercise regardless of the fact that the Emergency Response Plan was utilized within the previous 12-month period. For example, if a major change to the Outage Management System is installed since the last Emergency Response Plan activation, it would be appropriate to at a minimum exercise that portion of the plan.

4.10.3. Exercise Notice. The Utility Manager shall provide no less than ten days' notice of the annual exercise to appropriate state and local authorities, including the CPUC, state and

regional offices of the OES or its successor, the California Energy Commission, and emergency offices of the counties in which the exercise is to be performed.

4.10.4. Exercise Evaluation. The response to an exercise or major outage shall be evaluated per Section 4.9. The evaluation shall be provided to Regulatory Affairs Manager so that it may be forwarded to the CPUC as part of the report required by GO-166 Standard 11.

4.10.5. Emergency Response Outreach Training. The Utility Manager shall conduct outreach with the county and city emergency response officials and participate as applicable in other emergency exercises designed to address problems on electric distribution facilities or services, including those emergency exercises of the state and regional offices of the OES or its successor, and county emergency offices.

4.11. **Initial Notification.** The Utility Manager shall ensure that the notifications in accordance with the requirements provided in BVES's Electric Utility Emergency Reporting Policy and Procedures are achieved within the required timeframes.

5. Emergency Response Communications Plan.

5.1. **Strategy Overview.** Achieving unity of effort provides for the most effective and efficient emergency response. This is best attained through the "4 C's" of disaster planning:

- Collaboration
- Cooperation
- Coordination
- Communication

The first three hinge upon effective communications. The overall communications strategy is structured so that all stakeholders receive accurate, timely and consistent information, with an overall message for safety of the public, employees and contractors. Communications with local government agencies, customers and other stakeholders are vital to the successful implementation of the EDRP. The plan aims to identify who should be given specific information, when that information should be delivered, and what communication channels shall be used to deliver the information.

During a major outage the Operations Group shall make it a priority to provide the following information to the Public Information Group:

- **Extent of the outage** – using our Outage Management System (OMS) and available field assessment and data, determine how many customers are affected and in which areas
- **Cause of the outage** – provide in broad terms. If unknown, provide status of crews responding to investigate including updating once the power has been restored.
- **Estimated time of restoration (ETR)** – this is the key information customers want to know. If unknown, state so and update as more information becomes available. Don't let ETRs become stale (for example, if a posted ETR is extended, update the posting with a revised ETR).

The Customer Service Supervisor is responsible for updating and executing the BVES communications plan in support of the EDRP. The Utility Manager is responsible for ensuring that accurate information from the Operations Group flows to staff responsible for executing the communications plan.

Additionally, the Customer Service Supervisor shall maintain "call center metrics" that measure customer access to information on customer service calls and web host availability during an emergency or disaster.

5.2. **Establish Multiple and Effective Communication Channels.** Establishing a multilayered communications plan utilizing many separate communications channels is essential to ensuring that the communications plan shall be effective in reaching targeted audiences under uncertain and severe conditions, as would be expected for major outages and disasters and/or following such events. For example, some customers may lose their landline capability in a power outage but still have cell phone service. Plan resiliency, therefore is dependent on having many overlapping layers of communications.

5.2.1. Outbound Communications

- BVES website
- BVES social media
- Online meetings/broadcasts
- Interactive Voice Response System
- Press releases to local media
- Press conference
- Phones – landlines, mobile cellular, and satellite lines
- Email
- Two-way text messaging
- Door hangers
- Keeping staff who interact with customers informed with latest message
- Advertising
- Community workshops and presentations
- Mail (for example, flyers, newsletters)
- Bill inserts
- County and City communication systems
- Big Bear Chamber of Commerce email blast
- City email blast
- Bear Valley local government, agencies and utilities Public Information Group

5.2.2. Inbound Communications:

- Interactive Voice Response System
- Call center phone lines
- BVES social media
- Customer service windows
- Bear Valley local government, agencies and utilities Public Information Group
- Phones – landlines, mobile cellular, and satellite lines
- Email
- Text messaging
- Activate internal PSPS list
- Press inquiries
- iRestore Reports

5.2.3. Internal Communications:

- Phones – landlines, mobile cellular, and satellite lines
- Email
- Text messaging
- FaceTime, Skype, Online Meetings, etc.
- Intranet – shared drives, internal applications, and SharePoint
- Radios – VHF

- Direct reports

5.2.4. There are many developing and evolving communications technologies; therefore, it is essential that staff continually evaluate the above lists and modify as applicable. Changes should be evaluated each time the plan is updated.

5.2.5. Besides having multiple communications channels, there are three other elements that are essential to ensuring an effective communications strategy:

- Testing and exercising the communications channels frequently so that staff are trained on their usage, target audiences and key stakeholders are familiar with them, and technical issues are resolved prior to an actual emergency. Once testing and exercising of communication channels is complete, adjustments will be made based on lessons learned.
- Establishing good business relationships and rapport with target audiences and key stakeholders prior to any emergency.
- Maintaining accurate contact information with key stakeholders per Section 3.11 (Key External Contacts List) of this plan.

5.3. **Conduct Pre-Incident Outreach and Education.** BVES has developed a multi-level approach to community education and outreach related to public awareness of outages, emergencies, and emergency preparedness. An important aspect of managing expectations is to conduct education and outreach with customers and key stakeholders well in advance of any emergency. This allows target audiences the opportunity to be ready and provides them the knowledge of what to expect and how to prepare in the event of an emergency such as an extended outage due to a major winter storm or other natural disaster. *A community that is knowledgeable and ready for emergency events will be a force multiplier in emergency response actions*.

5.3.1. City and County Outreach. The Utility Manager shall coordinate with city and county officials in compliance with Public Utilities (P.U.) Code Section 768.6, which requires the following outreach by BVES:

- In developing and adopting an emergency and disaster preparedness plan, BVES shall invite appropriate representatives of every city and county within the BVES service area to meet with, and provide consultation to BVES.
- BVES shall provide the point of contact designated by the city and county with an opportunity to comment on draft emergency and disaster preparedness plans.
- Every two years, in order to update and improve BVES's emergency and disaster preparedness plan, BVES shall invite appropriate representatives of every city and county within its service area to meet with, and provide consultation to BVES. All recommendations and input will be considered and updated should it be determined to be beneficial for the EDRP. The meeting shall be noticed and shall be conducted in a public setting that allows for the participation of appropriate representatives of counties and cities within the BVES service area. Participating counties and cities shall be provided with the opportunity to provide written and verbal input regarding BVES's emergency and disaster preparedness plan. For purposes of this public meeting, BVES may convene a closed meeting with

representatives from every city and county within its service area to discuss sensitive security-related information in BVES's emergency and disaster preparedness plan and to solicit comments.

- BVES shall notify the commission of the date, time, and location of the above meeting. BVES shall memorialize the meeting and shall submit its records of the meeting to the commission.
- BVES may comply with the meeting requirement that is ordered by the Public Utilities Code by : i) making a presentation regarding its emergency and disaster preparedness plan at a regularly scheduled public meeting of each disaster council created pursuant to Article 10 (commencing with Section 8610) of Chapter 7 of Division 1 of Title 2 of the Government Code within BVES' service area; or ii) at a regularly scheduled public meeting of the governing body of each city located within the service area.

5.3.2. General Public, Customer and Stakeholder Outreach and Education (before an emergency). Utilizing BVES website, social media, public workshops, meetings with key stakeholders, press releases, advertising, newsletters, bill inserts, two-way text communication, IVR, and other communications channels, the Utility Manager and Customer Service Supervisor shall work to educate, inform and conduct outreach with the general public, customers and stakeholders such as local government and agencies, community groups and other utilities on the following topics:

- Customer power outage readiness preparation, including publishing a customer checklist for outages
- Backup generators and safety training
- Reporting outages
- Reporting wire down events and how to handle the situation
- Public Safety Power Shutoff policies
- Wildfire prevention measures including the vegetation management, covered wire, and distribution system inspection programs
- Operational initiatives that support wildfire prevention efforts such as re-closer and circuit patrol policies
- Outage restoration strategies used by BVES
- Infrastructure projects to improve safety, reliability and mitigate wildfires
- Other topics as deemed appropriate by the Utility Manager and/or Energy Resources Manager

In addition to the above outreach, the Utility Manager shall endeavor to periodically brief key elements of the EDRP at Big Bear Valley Mountain Mutual Aid Association ("MMAA") meetings, Big Bear Joint Utility meetings, Big Bear Fire Department and Sheriff's Department leadership.

The Utility Manager and Customer Service Supervisor shall develop and implement a strategy to periodically brief local government and agencies on BVES' emergency response plan. During these interactions, it is important to establish business relationships with local government and its agencies, other key community stakeholders, and other utilities so that during emergencies the BVES Leadership Team may seamlessly engage these groups. The

Utility Manager and Customer Service Supervisor shall develop a contact list of the key staff at local government and agencies to notify during emergency events. The contact list should include preferred and back-up means of contact (for example, mobile phone number, email, office phone, etc.). The contact list shall be verified, corrected and updated as necessary at least every six months by the Administrative Support Associate.

The list of local government and agencies and key stakeholders shall include at a minimum the following organizations:

- Local officials (City of Big Bear Lake (CBBL) and San Bernardino County)
- State officials (normally CPUC Energy Division and Safety Enforcement Division)
- San Bernardino County Office of Emergency Services (County OES)
- Big Bear Fire Department
- California Department of Forestry and Fire Protection (CAL FIRE)
- U.S. Forest Service
- San Bernardino County Sheriff's Department Big Bear Lake Patrol Station
- California Highway Patrol (CHP) Arrowhead Area
- California Department of Transportation (Caltrans)
- Big Bear Area Regional Wastewater Agency (BBARWA)
- Big Bear City Community Services District (CSD)
- Big Bear Lake Water Department (DWP)
- Big Bear Municipal Water District (MWD)
- Southwest Gas Corporation
- Bear Valley Community Hospital
- Bear Valley Unified School District
- Big Bear Chamber of Commerce
- Big Bear Airport District
- Big Bear Mountain Resort
- Local communication companies (Spectrum and various cell providers)

5.4. **Provide Outreach in Prevalent Languages.** United States Census data shows that the top three primary languages used in California are English, Spanish and Chinese (including Cantonese, Mandarin and other Chinese languages). BVES shall communicate its emergency preparedness outreach and response in English, Spanish, Chinese (including Cantonese, Mandarin and other Chinese languages), Tagalog, and Vietnamese. Additionally, BVES has included two indigenous languages (Zapateco and Mixteco) as part of its wildfire mitigation communications.

5.5. **Provide Emergency Incident Communications.** Utilizing the multiple communications channels discussed earlier, the Public Information Group and Emergency Response Leadership Team shall engage and educate the general public, local government and its agencies, and other key stakeholders to provide notification of outages and emergencies, estimated time to restore service, cause of outage (if known), and periodic updates as appropriate. The following sections provide detail on how these communications shall be conducted.

5.5.1. Set Expectations and Develop Trust. When an emergency occurs, BVES shall communicate with the general public, customers, local government and its agencies, and key stakeholders as soon as possible to set expectations and address emergency issues. When business operations or households are disrupted by power outages, customers expect to know how long they shall be impacted. Thus, estimated restoration times (ETRs) shall be developed, monitored, adjusted and communicated. Establishing ETRs is a key function of the Operations Group. Regulators and local government officials shall be notified regarding the impact to communities per GO 166 Standard 6. Customer Service Supervisor shall:

- Work with BVES's public relations contractor subject matter experts (SMEs) to develop consistent and accurate BVES messaging to customers and stakeholders.
- Employ consistent and frequent multi-channel communications to disseminate information that leverage and reinforce one another.
- Brief employees; especially field staff and customer service representatives, on the latest information so that their interactions with the public are consistent with the messaging.
- Coordinate closely with the Operations Group to provide customers and stakeholders system updates including best known restoration times.
- Ensure that all communications are accurate and always factually correct. If incorrect information is inadvertently issued, then it is important that a correction be issued as soon as known and that the error be acknowledged. If information is not certain, then avoid reporting it or qualify it as appropriate. For example, "BVES has received reports of a downed tree on its power lines on Moonridge Road; field crews have been dispatched to validate the report and assess any damage that may have resulted."
- Strive to be transparent; it is absolutely critical to our credibility and to ensuring that the public, customers and stakeholders have the upmost confidence in our ability to perform our essential public service – providing safe, reliable, and high quality electric service.
- Per GO 166 Standard 6, BVES shall provide an initial notification within one hour of the identification of a major outage or other newsworthy event. BVES shall also notify the Commission and San Bernardino County Warning Center at the Office of Emergency Services of the location, possible cause and expected duration of the outage. The Warning Center at the OES is expected to notify other state and local agencies of the outage. Subsequent contacts between state and local agencies and BVES shall be conducted between personnel identified in advance, as set forth in Standard 4.B (Communications Strategy with Government). From time to time the Commission staff may issue instructions or guidelines regarding reporting.

5.5.2. Notify and Engage Key Stakeholders. Keeping local government and agency officials as well as other key stakeholders informed of emergencies is critical to their ability to operate and support their missions. It is far more advantageous for these officials and key stakeholders to receive information directly from BVES Leadership in a timely manner rather than via the media.

Utilizing the contact list developed during pre-incident engagement, BVES Leadership should notify local government and agencies and other key stakeholders of emergencies and provide them updates as appropriate. Some of this notification may be achieved by sending to the local "Public Information Officer" developed through MMAA group email notifications and status updates.

5.5.3. Notify Customers and General Public. The Customer Service Supervisor shall develop pre-planned statements with fill-in-the-blank sections for potential outage and emergency events. These pre-planned statements shall be used as deemed appropriate by the Customer Service Supervisor to update customers and the general public as soon as feasible via the following means:

- News releases (newspaper, online news outlets, radio, etc.)
- Website updates
- Social media updates
- IVR messages
- Two-way text communication
- Email notifications to customers
- Other public and customer engagement media (for example, City of Big Bear Lake's email blast)

Specific guidance on developing press releases and statements and engaging the media is provided in the next section. Customer Service Supervisor shall develop pre-planned statements for IVR and text message use. IVR and text messages should be short – about one sentence – and may refer the customer to additional information sources such as our website or social media. For example, "BVES crews are responding to outages on the North Shore and the estimated time to restore power is 2 pm – additional information is available at www.bves.com."

5.5.4. Media Engagement Procedures. By proactively engaging the media, BVES is able to reach a wide audience in its service area and establish the opportunity to convey the correct narrative and information to the general public. When engaging the media, it should be understood that in general the media are:

- Professionals at what they do – they are normally just doing their job and are experts at interviews.
- Often, they are deadline driven.

Therefore, when working with the media as a BVES spokesperson, staff must be prepared and properly authorized. Any employee speaking to media whether "on the record" or "off the record" automatically becomes a spokesperson for the BVES willingly or unwillingly.

5.5.4.1. *Authorized Media Engagement.* The Public Information Group is the authorized group to interact with the media and they shall lead all media engagement efforts. They shall work closely with the Operations Group to ensure they have accurate information, develop press releases with the assistance of the BVES's public relations firm, coordinate releases with other organizations such as local government and agencies, and clear press releases with the President prior to releasing them.

It should be recognized that media representatives could reach out to BVES employees at any time; especially, BVES employees (and their contractors) out in the field. Therefore, Managers and Supervisors must ensure their employees are periodically updated with the status of the

emergency response and train their employees to respond to direct media reporter inquiries as follows:

- At all times act politely and professionally.
- Write down the reporter's name, organization, and phone number.
- Write down any questions the reporter may have.
- It is acceptable for field crews and staff to respond to questions directly pertaining to the conditions or work being performed by them. For example, it is acceptable for field crews to describe how the weather is impacting their immediate restoration work out in the field.
- However, any larger questions, such as estimated time of restoration, other reported outages, availability of resources (manpower and materials), restoration strategy should be written down and the reporter informed that BVES shall get back to them.
- In all cases, the employee approached by the media must inform their Supervisor or Manager as soon as possible of the inquiry and pass along the contact information, questions asked, and any answers provided. This information must be immediately conveyed to the Public Information Group.
- The Public Information Group should follow up as soon as feasible with the reporter even if the employee responded to the questions.

5.5.4.2. *Press Release Content.* The Public Information Group shall develop press releases from pre-planned press release templates as feasible. These are especially useful in the initial stages of an emergency where information is still sparse. They allow for rapid dissemination of initial information of the emergency scope. As the Operations Group obtains more accurate information from Field Crews, the press releases should be updated accordingly. Additionally, they shall consult with BVES's public relations contractor to develop press releases and an engagement strategy tailored to the specific emergency.

Press releases should make the best attempt at addressing the "who, where, why, what, when, and how" to the emergency event. However, do not delay issuing a press release to obtain all of this information. The information can be relayed in press release updates. Ideally, in a large outage, the following information should be released as it is known:

- **(Who/where)** Location of the outage and who is affected – use geographic locations such as areas or streets (for example, "Moonridge Area", "from the Village to the Dam on the South shore of the lake", "from Pine Knot Ave to Paine Rd on the South Shore of Big Bear Lake", etc.). Avoid using circuit and/or substation names to describe the location, since these names have little meaning to the public.
- **(When)** Time outage started and estimated time of restoration (ETR).
- **(Who)** Number of customers without power. Provide the best estimate available and update as it is changed.
- **(Why/what)** Cause of the outage and location of damage/problem. Use simple descriptions that a non-utility audience would understand (for example, "car hit a ground mounted transformer causing sufficient damage to take it out of service," "an 80-foot tree fell from across the street on Pine Knot Ave onto a major overhead power line," "loss of power supply from Goldhill due to fault on Southern California Edison equipment," etc.).

- **(When)** Whether or not Field Crews are conducting repairs to restore power. If crews are not on site, provide an estimated time of arrival if available.
- **(How)** Actions being taken to restore power (starting BVPP, conducting field switching to alternate sources of power, conducting repairs to damaged equipment, etc.).

Pictures of the damage and field crews conducting repairs are always very useful.

5.5.4.3. *Press Release Protocols*. The Public Information Group under the leadership of Customer Program Specialist shall be responsible for drafting and issuing press releases from the BVES to the media. Press releases shall be drafted, approved, and released per the protocol shown in Figure 5-1, Press Release Protocol.

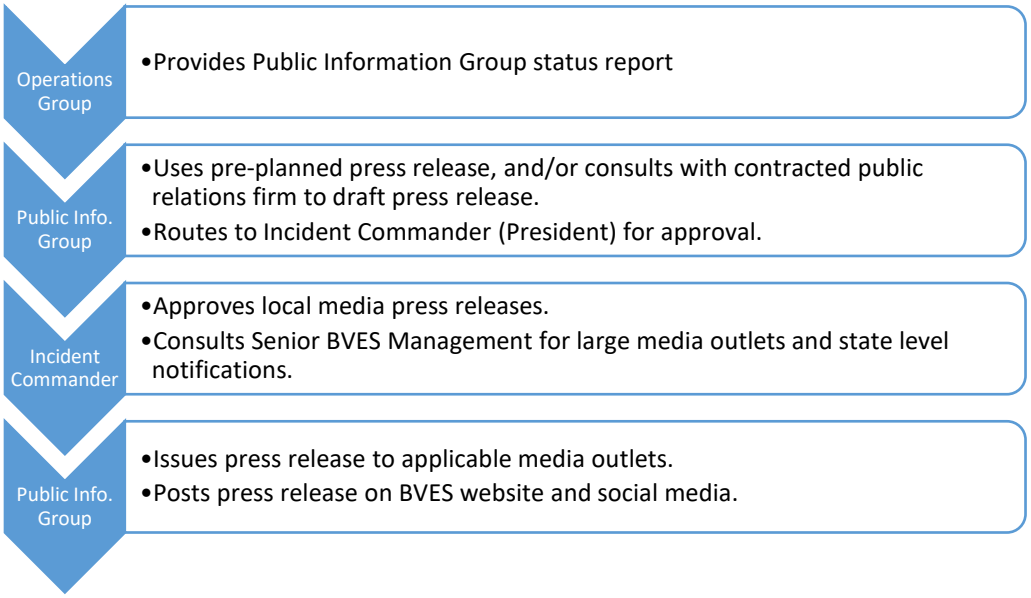


Figure 5-1: Press Release Protocol

5.5.5. Post Emergency Event Close-out Statement. Once the Emergency Response is determined to be no longer necessary, Customer Service Supervisor shall prepare a summary press release and statement providing customers a brief summary of the emergency event and provide any post incident support instructions such as:

- Information on whom to contact at BVES to reconnect service for customers whose weather head or other equipment was damaged preventing immediate service restoration.
- Information on obtaining post incident customer support per Section 6 of this plan.

5.6. **Reports to the Commission.** The Utility Manager shall ensure required reports to the Commission and its Divisions are made in a timely and complete manner. These reports include:

- Notify California Public Utilities Commission (CPUC) and Warning Center at the Office of Emergency Services San Bernardino within one hour of an outage if the outage meets the major outage criteria of GO-166.

- Notify President Safety Enforcement Division (SED), CPUC within twelve hours of the power being shut-off per ESRB-8.
- Provide a report (written) to President of SED no later than 10 business days after the shut-off event ends per ESRB-8.

6. **Customer Support in Emergencies.** In the event the Governor of California declares a state of emergency because a disaster has either resulted in the loss or disruption of the delivery or receipt of utility service and/or resulted in the degradation of the quality of utility service, BVES shall implement certain customer service actions as described below. This section provides an overview of the protocols for compliance with requirements adopted by the CPUC regarding activities to support customers. The protocols span customer billing, support for low income, life support, Access and Functional Needs (AFN) customers, and other forms of customer support.

6.1. **Support for Low Income, Life Support and AFN customers.** The Customer Care Team shall freeze low income, life support, and AFN customer accounts and stop all California Alternative Rates for Energy (CARE) High-Usage tracking. The Supervisor shall work with implementation contractors and emergency assistance programs to update affected customers on eligibility requirements and enroll them in assistance programs.

6.2. **Billing Adjustments.** The Customer Care Team shall freeze accounts and stop billing during the disaster event to ensure bills are not estimated or generated for affected customers. Billing shall resume once the case is closed by the Customer Care & Billing (CC&B) technical team, upon notice from the Supervisor.

6.3. **Deposit Waivers.** The Customer Care Team shall add a designated customer contact for all affected customers. The contact shall reside within CC&B for up to one year from the date the emergency ends. This shall allow BVES to easily track the customer's account, so when service is re-established, the utility shall know to waive any associated fees and to expedite customer re-connection.

6.4. **Extended Payment Plans.** The Customer Care Team shall freeze all payments on affected customers' account to avoid affecting their credit. All affected customers shall be notified that an extended payment plan option is available for any past due payments.

6.5. **Suspension of Disconnection and Nonpayment Fees.** The Customer Care Team shall freeze affected customer accounts, so disconnections and nonpayment fees are not generated during the disaster event. Once the emergency ends, the Supervisor and/or Specialist shall contact the CC&B Team to "close" all affected customer cases. This shall automatically transition the customer's account back to the normal state. BVES shall simultaneously begin assisting with service restoration and deposit waivers.

6.6. **Repair Processing and Time**. During emergencies, BVES shall set up specialized repair teams to expedite repair processing. If additional support is needed, BVES shall leverage mutual aid programs with other emergency response resources and shall work with electrical contractors to ensure timely service restoration. Exact timing shall be dependent on the nature of the situation.

6.7. **Access to Utility Representatives.** The BVES Engineering Technician shall arrange for connections and facilitate expedited services. Leveraging its IVR system, BVES shall be able to handle thousands of phone calls simultaneously and divert customers to the appropriate utility representative.

6.8. **Access to Outage Reporting and Emergency Communications.** During emergencies, BVES shall invoke its emergency communications plan per the EDRP to attempt to reach as many customers as feasible with outage, restoration and recovery information via multilayered communications channels and multiple languages per Section 5.4 of the EDRP.

Appendix G.

Bear Valley Electric Service, Inc.
Vegetation Management
and
Vegetation QA/QC Programs

October 6, 2021

Approved by: _____
Paul Marconi, President, Treasurer, & Secretary

1. Purpose: Provide requirements for the Vegetation Management (VM) program and VM quality assurance (QA)/quality control (QC) program at Bear Valley Electric Service, Inc. (BVES).

2. Background: Proper clearance of vegetation around high voltage power lines is essential to public safety and ensuring the transmission and distribution (T&D) system is reliable. BVES has established vegetation clearance standards to achieve safe and reliable T&D operations, which are described in Section 3. Efficient, effective, and sustained implementation of the standards is the objective of the VM program described in Section 4. Violation of BVES's vegetation clearance standards significantly increases the risk of ignitions and; therefore, utility caused wildfires when combined with dry weather conditions and high winds. Additionally, such violations increase the probability of vegetation caused outages.

BVES utilizes contractors to provide vegetation clearance services to maintain clearance standards. Ensuring that vegetation clearance operations are actually being performed to the desired standards is an essential element of mitigating the risk of ignition and outages. Therefore, BVES established a VM QA/QC program. The VM QA program is focused on providing confidence that quality requirements will be fulfilled. The VM QC program requires that certain designated BVES Staff perform VM QC checks on a frequent basis. The results of the VM QA/QC programs are essential to alerting BVES to the state of its VM program, which is a critical element for public safety. Section 5 provides guidance on the VM QA/QC program. Having assurance that vegetation clearance efforts are meeting our standards is essential to ensuring public safety from utility caused wildfires. It is critical that if there are problems in vegetation clearance, that BVES is aware of the problems and is able to then dedicate the proper resources toward vegetation clearance efforts to make it effective and resolve any problem areas.

Effective vegetation management requires specialized subject matter expertise; therefore, BVES at times may engage forester consulting services. Some of the duties that may be assigned to the forester include: inspections, auditing, customer contacts and issue resolution, work plans development, specialized projects, contractor safety observations, and vegetation management program documentation and data analysis.

3. Vegetation Clearance Standards: California Public Utilities Commission (CPUC) General Order 95 (GO-95), Rules for Overhead Electric Line Construction, Rule 35 Vegetation Management and Appendix E Guidelines to Rule 35 (trimming guidelines) provides minimum vegetation clearance standards applicable to BVES's T&D system.

3.1. For reference, BVES' Service Area is entirely within a "High Fire-Threat District" with areas classified as Zone 1 and Tiers 2 and 3 per Rule 21.1 of GO-95. Based upon GO-95 requirements (48 inches minimum radial clearance) and on the local climate, likelihood of icing conditions, tree limbs and branches subject to weakening due to high winds and snow weight, elevation, local conditions and access to vegetation for trimming, and species growth rates and characteristics, **the minimum allowable radial clearance of bare line conductors from vegetation is 72 inches** in the BVES service area.

3.2. BVES has established the following requirements to safe clearance along bare line conductors is maintained throughout the BVES service area during the entire length of the vegetation management program cycle:

- **Radial Clearances:** Vegetation that is within the minimum 72-inch safe clearance distance will be trimmed to at least 12 feet in accordance with Appendix E Guidelines to Rule 35 of GO-95. Taking into account vegetation species and growth rates and characteristics, BVES's contractor will trim beyond 12 feet if necessary to ensure that the vegetation remains outside the minimum 72-inch safe clearance distance for the entire length of the vegetation management program cycle (3-years).

    - Vegetation that is outside the minimum 72-inch safe clearance distance but is expected, taking into account vegetation species and growth rates and characteristics, to encroach the 72-inch safe clearance distance prior to the next scheduled preventative vegetation management visit (normally 3 years) will be trimmed to at least 12 feet in accordance with Appendix E Guidelines to Rule 35 of GO-95. Taking into account vegetation species and growth rates and characteristics, BVES's contractor will trim beyond 12 feet if necessary to ensure that the vegetation remains outside the minimum 72-inch safe clearance distance for the entire length of the vegetation management program cycle (3-years).
    - Anytime it is determined that trimming of vegetation is necessary, BVES's contractor shall trim to least 12 feet in accordance with Appendix E Guidelines to Rule 35 of GO-95. Taking into account vegetation species and growth rates and characteristics, BVES's contractor will trim beyond 12 feet if necessary to ensure that the vegetation remains outside the minimum 72-inch safe clearance distance for the entire length of the vegetation management program cycle (3-years).
    - In so far as possible, trimming shall be designed to achieve the appropriate clearance from the power lines without damaging the structural integrity or health of the tree(s).

- **Blue Sky Requirement:** No vertical coverage shall be allowed above BVES sub-transmission lines (34.5 kV).
- **Fast Growing Trees:** All fast growing trees, (poplar, aspen, cottonwood…) will be trimmed to at least 12 feet and removal will be considered. BVES's contractor may determine that additional clearance would be prudent based on growth factors, wind, ice, etc.
- **Drip Line:** All vegetation within the drip line of primary conductors that has the potential of growing into the secondary system or within 12 feet of the energized primary conductors within the 3-year vegetation management program cycle will be removed.
- **Tree Trunk and Major Limb Exception:** Per Section 3.3 below and Appendix A, Trees and Major Limbs in Close Proximity to Bare Conductors, flow chart.
- **Tree Removal:** Trees that are dead, rotten or diseased or dead, rotten or diseased portions of otherwise healthy trees which overhang or lean toward and may fall into a span of power

lines, said trees or portions thereof should be removed. Note that this may apply to trees outside the clearance zone (for example, a dead tree across the street may pose a danger to BVES power lines).

- **Base of Poles/Structures:** For poles or structures that have non-exempt equipment per CALFIRE requirements, all flammable material and vegetation in a 10-foot radius around the base of the pole or structure shall be cut down and removed during each normal vegetation management cycle clearance visit. Exceptions per the effective California Power Line Fire Prevention Field Guide are authorized.
- **Right of Way:** All brush, limbs and foliage in the right of way (ROW) shall be cut up to 8-feet above the ground. All dead, dying, diseased or dried vegetation from 8 feet above the ground to the top of the power lines must be cut down during each normal vegetation management cycle clearance visit. This requirement is applicable to all ROWs in the HFTD Tier 3 and to all ROWs in the HFTD Tier 2 designated as having high strike potential by the Wildfire Mitigation & Safety Engineer. Exceptions per the effective California Power Line Fire Prevention Field Guide are authorized.

3.3. Tree Trunk and Major Limb Exception. Appendix A, Trees and Major Limbs in Close Proximity to Bare Conductors, provides the information in this section in flowchart format. If a mature tree whose trunk or major limb is within 48 inches of bare conductors, take the following action:

3.3.1. If the tree or major limb is within 12 inches of the bare conductors regardless of thickness at conductor level, this is a Level 1 discrepancy and shall be immediately remediated by:

- Removing the tree or limb immediately, or
- Installing a tree guard on the line to prevent the tree or limb from contacting the bare conductors and designating the discrepancy as a Level 2 discrepancy to be corrected by removing the tree within 6 months.

3.3.2. If the tree or major limb is less than 6 inches thick at conductor level, then the tree or major limb must be trimmed or removed to achieve 72 inches clearance from bare conductors as follows:

3.3.2.1. If there are no burn marks or evidence of the tree or limb making contact with bare conductors and the clearance is greater than 48 inches, then this is a Level 2 discrepancy and shall be corrected within 12 months.

3.3.2.2. If there are no burn marks or evidence of the tree or limb making contact with bare conductors and the clearance is less than 48 inches but greater than 18 inches, then this is a Level 2 discrepancy and shall be corrected within 180 days. A tree guard should be installed as soon as operationally possible.

3.3.2.3. If there are burn marks or evidence of the tree or limb making contact with bare conductors and/or the clearance is less than 18 inches, then this is a Level 1 discrepancy and shall be immediately remediated by:

- Removing the tree or limb immediately, or
- Installing a tree guard on the line to prevent the tree or limb from contacting the bare conductors and designating the discrepancy as a Level 2 discrepancy to be corrected by removing the tree within 6 months.

3.3.3. If the tree or major limb is greater than 6 inches thick at conductor level and greater than 12 inches from bare conductors, then the tree or major limb shall be evaluated to determine if an exemption per GO-95 Rule 35 may be applied. Take the following action:

3.3.3.1. If there are burn marks present on the tree or major limb or evidence of the tree or limb making contact with the bare conductor, this is a Level 1 discrepancy and shall be immediately remediated by:

- Removing the tree or major limb immediately, or
- Installing a tree guard on the line to prevent the tree or limb from contacting the bare conductors and designating the discrepancy as a Level 2 discrepancy to be corrected by removing the tree within 6 months.

3.3.3.2. If there are no burn marks present on the tree or major limb and no evidence of the tree or limb making contact with the bare conductor, then the tree or major limb may be exempted provided the following:

- Tree has been established in its current location for at least 10 years.
- Tree trunk has a diameter at breast height (DBH) of at least 10”.
- Tree or limb at the conductor level is at least 6” in diameter.
- Tree is not re-sprouting at conductor level during the time of inspection.
- Tree is healthy and not otherwise hazardous.
- Tree is not easily climbable. Note the tree clearance crew can remove branches to render a tree not easily climbable.

3.3.3.3. If the tree cannot satisfy one or more of the above criteria (Section 3.3.3.2), then the tree or major limb must be removed. It should be designated as a Level 2 discrepancy and shall be corrected within 12 months.

3.3.3.4. If the tree satisfies all of the above criteria (Section 3.3.3.2), then the tree may be exempted and remain in place. The tree shall be:

- Documented on Major Woody Stem Form and approved by the Wildfire Mitigation & Reliability Engineer.
- Tracked in the Company’s GIS applications for vegetation management.

- Re-evaluated each year.
- As a precaution, install a tree guard when operationally feasible.

4. Vegetation Management Program: The VM program is designed to ensure the standards described in Section 3 are achieved and sustained throughout the BVES service area.

4.1. Wildfire Mitigation & Reliability Engineer. The VM program shall be the responsibility of the Wildfire Mitigation & Reliability Engineer. Specifically, the Wildfire Mitigation & Reliability Engineer shall:

4.1.1. Establish and ensure BVES's vegetation clearance standards (Section 3) comply with state law, CPUC regulations and other higher authority requirements and achieve the desired public safety and reliability goals of the program given the local environmental conditions of the BVES service area.
4.1.2. Recommend to the President any changes to the BVES vegetation clearance standards (Section 3) that may be required due to:

- Changes in the law, CPUC regulations, other higher authority requirements, and
- Changes in the local service area environment (for example, extended draught conditions, tree pest infestations, etc.) that may warrant a change in clearance standards.

4.1.3. Ensure BVES applies sufficient resources to maintain the BVES vegetation clearance standards (Section 3) throughout the service area.
4.1.4. Recommend to the Utility Manager changes to vegetation management resources as appropriate to maintain compliance with the BVES vegetation clearance standards (Section 3).
4.1.5. Manage all aspects of vegetation management contracts in accordance with BVES's procurement policy. This shall include drafting requests for proposals (RFPs) as applicable, assisting in selecting contractors via the BVES bidding process, reviewing and approving invoices for the Utility Manager or President approval as applicable.
4.1.6. Perform the duties of the BVES Authorized Representative for vegetation management contracts and ensure the contractor is performing in accordance with the contract requirements.
4.1.7. Ensure contractor employees conducting vegetation clearance work are properly trained and certified as required by state law.
4.1.8. Coordinate with contractors and Field Operations to cover power lines or de-energize lines as needed.
4.1.9. Inform Field Operations Supervisor and Customer Program Specialist where vegetation clearance operations will be conducted each week.
4.1.10. Work with the Customer Program Specialist to generate or update customer outreach to educate customers on vegetation management efforts in the BVES service area.
4.1.11. Work with the Customer Service Supervisor or applicable Customer Service staff to resolve customer inquiries or disputes involving vegetation clearance efforts.

4.1.12. Coordinate with the City of Big Bear Lake, County of San Bernardino, U.S. Forest Service, CALFIRE, Big Bear Fire Department, and other applicable stakeholders in the area of vegetation clearance efforts.
4.1.13. Coordinate with the City of Big Bear Lake, County of San Bernardino, U.S. Forest Service, CALFIRE, Big Bear Fire Department, and other applicable stakeholders in the area of fuels management efforts by the community.
4.1.14. Manage all aspects of the VM QA/QC program as described in Section 5.
4.1.15. Work closely with the GIS Specialist and contractors to ensure the vegetation clearance efforts are properly documented in the GIS and associated applications.
4.1.16. Work closely with the GIS Specialist to develop overlays to support presentations and documents regarding the vegetation management program.
4.1.17. Manage and provide oversight of the Third Party Patrols, LiDAR Surveys, Fly-over UAV Surveys, etc., while working closely with the Field Inspector to ensure line inspection programs such as GO-165 Detailed Inspections and GO-165 Patrols are being conducted in compliance with CPUC regulations and BVES requirements and vegetation clearance discrepancies are being identified by the inspections.
4.1.18. Manage and provide oversight of the Forester's work activities when assigned. Some of the duties that may be assigned to the Forester include: inspections, auditing, customer contacts and issue resolution, work plans development, specialized projects, contractor safety observations, and vegetation management program documentation and data analysis.
4.1.19. Issues or causes to be issued vegetation orders to the contractor.
4.1.20. Review the results of line inspection programs such as GO-165 Detailed Inspections, GO-165 Patrols, Third Party Patrols, LiDAR Surveys, Fly-over UAV Surveys, etc. and ensuring any vegetation discrepancies are tracked and resolved. This is normally done by issuing or causing to be issued vegetation orders to the contractor.
4.1.21. Discrepancies of a significant safety nature that would be classified as Level 1 per GO-95 Rule 18 should be resolved immediately by notifying the Field Operations Supervisor or Field Inspector who will send the appropriate crew to resolve the issue in an expedient manner. If unable to reach the Field Operations Supervisor or Field Inspector, then notify the Service Crew or Dutyman to resolve the issue.

Examples of Level 1 vegetation discrepancies are vegetation contacting, nearly contacting or arcing to high voltage conductor, vegetation contacting low voltage conductor and compromising structure, etc.

4.1.21.1. Other vegetation discrepancies of an urgent nature (Level 2) but do not rise to the Level 1 classification should be assigned to the contractor as a vegetation order with requirement to resolve within 30-days. Examples of Level 2 vegetation discrepancies are vegetation within 48 inches of high voltage lines, vegetation causing strain or abrasion on low voltage conductor, tree or portions of tree that are dead, rotten or diseased that may fall into power lines, etc.
4.1.21.2. Non-urgent vegetation discrepancies should be tracked as Level 3 discrepancies and resolved by the contractor during the normal vegetation cycle.

4.1.22. Support the preparation of regulatory reports, General Rate Case testimony, Wildfire Mitigation Plan updates, Data Requests and other regulatory requests regarding vegetation management issues.
4.1.23. Support CPUC audits, Office Infrastructure Safety (OEIS) site visits, and other authorized agency reviews of vegetation management.

4.2. Utility Manager**.** Provides oversight of the VM and VM QA/QC programs. Specifically:

4.2.1. Reviews reports and directs changes to the program as deemed necessary. Keeps the President informed of such changes.
4.2.2. Ensures the VM program is properly resourced. Prepares annual O&M budget for vegetation management efforts.
4.2.3. Responsible for ensuring vegetation contracts are in place and managed per the BVES procurement policy.
4.2.4. Responsible for preparing regulatory reports, General Rate Case testimony, Wildfire Mitigation Plan updates, Data Requests responses and other regulatory requests regarding vegetation management issues. These should all be forwarded to the Regulatory Affairs Manager and the President prior to issuing.
4.2.5. Provides oversight of the VM QA/QC programs described in Section 5.
4.2.6. Responsible for supporting CPUC audits, OEIS site visits, and other authorized agency reviews of vegetation management.

4.3. Utility Engineer & Wildfire Mitigation Supervisor**.** Provides oversight of the Wildfire Mitigation & Reliability Engineer in managing the VM and VM QA/QC programs. Specifically:

4.3.1. Responsible for ensuring VM QA annual audit and quarterly vegetation management assessments are timely, complete, and accurate in accordance with Section 5.
4.3.2. Responsible for ensuring the Wildfire Mitigation & Reliability Engineer has adequate tools and staff support (GIS, Administrative, etc.) to properly manage the VM and VM QA/QC programs.
4.3.3. Responsible for reviewing vegetation requirements and ensuring the VM program is in compliance with requirements.
4.3.4. Responsible for ensuring VM program is executed per this procedure and BVES's current Wildfire Mitigation Plan.
4.3.5. Responsible for CPUC audits, OEIS site visits, and other authorized agency reviews of vegetation management. Coordinates closely with the Field Operations Supervisor on these matters and all communications with regulatory agencies through the Utility Manager and President.

4.4. Field Operations Supervisor**.** Provides support to the Wildfire Mitigation & Reliability Engineer in managing the VM and VM QA/QC programs. Specifically:

4.4.1. Provides support as needed to de-energize or cover lines as applicable and provides assistance in resolving vegetation discrepancies.

4.4.2. Closely supports the Utility Engineer & Wildfire Mitigation Supervisor on CPUC audits, OIES site visits, and other authorized agency reviews of vegetation management.
4.4.3. Ensures Field Inspector works closely with the Wildfire Mitigation & Reliability Engineer to achieve VM program requirements.

4.5. Field Inspector**.** Supports the Wildfire Mitigation & Reliability Engineer in the area of line inspections with regard to identifying, documenting, and tracking vegetation clearance discrepancies. Specifically:

4.5.1. Assists the Wildfire Mitigation & Safety Engineer to achieve VM program requirements.
4.5.2. Assists in ensuring line inspection programs such as GO-165 Detailed Inspections, GO-165 Patrols, Third Party Patrols, LiDAR Surveys, Fly-over UAV Surveys, etc. are being conducted in compliance with CPUC regulations and BVES requirements and vegetation clearance discrepancies are being identified by the inspections.
4.5.3. Assists in reviewing the results of line inspection programs such as GO-165 Detailed Inspections, GO-165 Patrols, Third Party Patrols, LiDAR Surveys, Fly-over UAV Surveys, etc. and ensuring any vegetation discrepancies are tracked and resolved.
4.5.4. Assists in issuing or causing to be issued vegetation orders to the contractor.
4.5.5. Works closely in supporting CPUC audits, OEIS site visits, and other authorized agency reviews of vegetation management.

4.6. GIS Specialist**.** Supports the Wildfire Mitigation & Reliability Engineer in tracking vegetation clearance efforts and discrepancy management with the GIS and associated applications. Specifically:

4.6.1. Supports data entry and migration of contracted vegetation services and inspection programs into the GIS and associated applications.
4.6.2. Assists in scope of work development for RFPs regarding vegetation management service and inspection programs to ensure data and documentation requirements that are compatible with BVES GIS applications are accurately provided to bidders.
4.6.3. Assists in developing data reports and GIS overlays to support Management, OEIS, CPUC, CALFIRE, and other authorized agency reporting requirements.
4.6.4. Assists in developing overlays to support presentations and documents regarding the VM program.

4.7. Customer Service Supervisor**.** Works closely with the Wildfire Mitigation & Reliability Engineer on all customer issues regarding vegetation management. Specifically:

4.7.1. Coordinates responses to customer inquiries or disputes with the Wildfire Mitigation & Reliability Engineer.
4.7.2. Takes the lead on any customer complaints filed with the CPUC regarding vegetation management.
4.7.3. Supports customer outreach and education on vegetation management effort.

4.7.4. Ensures BVES Website and Social Media inform customers on where vegetation clearance work is being conducted on a weekly basis.

4.8. Customer Program Specialist**.** Supports the Wildfire Mitigation & Reliability Engineer on all customer outreach efforts. Specifically:

4.8.1. With input from the Wildfire Mitigation & Reliability Engineer, generates or updates customer outreach media products to educate customers on vegetation management efforts in the BVES service area.
4.8.2. BVES Website and Social Media inform customers on where vegetation clearance work is being conducted on a weekly basis.

4.9. Administrative Support Associate. Provides assistance in administering the VM program and VM QA/QC program. Specifically:

4.9.1. Provides administrative support as described in Section 5 for the VM QA/QC program.
4.9.2. Provides administrative support in the preparation and submission of reports and correspondence associated with the VM program.

5. Vegetation Quality Assurance/Quality Control Program:

5.1. Vegetation Management Quality Assurance Program. The VM QA program is the part of quality management focused on providing confidence that quality requirements will be fulfilled by the VM program. The confidence provided by quality assurance is twofold —internally to management and externally to customers, government agencies, regulators, certifiers, and other stakeholders. The VM QA program consists of the following elements:

- Annual VM Program Audit conducted by the Forester if assigned (if not assigned, the Regulatory Compliance Project Engineer will perform the audit).
- Quarterly VM Program Assessment conducted by the Wildfire Mitigation & Reliability Engineer.
- Periodic VM QC checks conducted by staff per this policy and procedure.

5.2. Annual VM Program Audit. The Annual VM Program Audit will be conducted by the Forester (if not assigned, the Regulatory Compliance Project Engineer will perform the audit) in January each year covering the previous calendar year.

5.2.1. The audit is intended to be a comprehensive review of the VM Program covering at a minimum the areas and questions specified in Appendix B, VM Program Annual QA Audit Areas. The annual audit report shall be due each year by January 31 to the Wildfire Mitigation & Reliability Engineer.
5.2.2. The audit report shall be routed to the President, Utility Manager, Utility Engineer & Wildfire Mitigation Supervisor, and the Field Operations Supervisor for review.
5.2.3. The Wildfire Mitigation & Reliability Engineer shall issue a report of corrective action on issues identified in the annual audit by May 1 each year if applicable.

5.3. Quarterly VM Program Assessment. The Quarterly VM Program Assessment is performed by the Wildfire Mitigation & Reliability Engineer according to the schedule in Table 5-1.

Table 5-1, Quarterly VM Assessment and Report Schedule

Period of Assessment and Report	Report Due Date
January 1 to March 31	April 15
April 1 to June 30	July 15
July 1 to September 30	October 15
October 1 to December 31	January 15

The Wildfire Mitigation & Reliability Engineer shall conduct the Quarterly VM Program Assessment and prepare a quarterly report on the VM Program to the President, Utility Manager, Utility Engineer & Wildfire Mitigation Supervisor, and the Field Operations Supervisor on the status of the program and its results. If assigned, the Forester shall assist in conducting the quarterly assessment and preparing the report.

5.3.2. The report shall include the following at a minimum:

- Brief narrative on the status of the VM program, VM QC Checks program and analysis or commentary on the metrics below as applicable.
- Number of trees trimmed as a result of the vegetation management program.
- Number of trees removed as a result of the vegetation management program.
- Number of Level 1 vegetation discrepancies identified.
- Number of Level 1 vegetation discrepancies resolved.
- Number of Vegetation Orders issued.
- Number of Vegetation Orders resolved.
- Any accidents, incidents, or near misses on the part of vegetation clearance personnel.
- Number of outages where vegetation made contact with power lines and caused the outage (break out those outages where vegetation clearance was in violation of standards)
- List of VM QC Checks performed (include name of evaluator and date performed).
- List of significant findings from VM QC Checks.
- Service area Map showing where contractor worked in the quarter and where contractor will work in the next quarter.
- Where the contractor is in the vegetation cycle plan (e.g., percent complete).
- Corrective action taken on issues noted in previous Quarterly VM Program Assessments.
- Other items that would be useful to Management regarding vegetation management.

5.4. Vegetation Management Quality Control Check Program. The VM QC Check program is designed to check compliance with VM standards in the field. In particular, the program should check VM clearance contractor work. The Wildfire Mitigation & Reliability Engineer will administer the program.

5.4.1. Table 5-2, VM QC Check Periodicities, lists the designated staff that shall be assigned VM QC Checks and the periodicity for the checks.

Table 5-2: VM QC Check Periodicities

Title	Periodicity
President	Once every two months (January, March, May, July, September, November)
Utility Manager	Once every two months (February, April, June, August, October, December)
Utility Engineer & Wildfire Mitigation Supervisor	Once every two months (January, March, May, July, September, November)
Field Operations Supervisor	Once every two months (February, April, June, August, October, December)
Regulatory Compliance Project Engineer	Once every two months (January, March, May, July, September, November)
Wildfire Mitigation & Reliability Engineer	Twice per month
Field Inspector	Twice per month
Forester (if assigned)	Twice per month

5.4.2. The Administrative Support Associate shall assign VM QC Checks using the VM QC electronic tracking application.

5.4.3. Evaluators assigned to perform VM QC Checks will be provided a map of the assigned circuit area for the QC Check by the Administrative Support Associate and a copy of the Appendix C VM QC Check Form. These may be provided through the electronic tracking program if equipped. Additionally, the flowchart for Trees and Major Limbs in Close Proximity to Bare Conductors of Appendix A will be made available to evaluators.

5.4.4. Evaluators will inspect the designated circuit for compliance with the VM standards per Section 3 of this policy and procedure and document the results on the VM QC map in accordance with the instructions on the VM QC Check Form of Appendix C. The evaluator will annotate the completed VM QC map with the evaluator's name and date of the VM QC Check, sign the VM QC map, and route the VM QC map to the Wildfire Mitigation & Reliability Engineer. Additionally, the evaluator will update the VM QC Check Form of Appendix C – this may be done directly in the VM QC Check application if so equipped.

5.4.5. If an evaluator discovers a significant safety issue that would be classified as Level 1 per GO-95 Rule 18, the evaluator should immediately notify the Field Operations Supervisor or Field Inspector who will send the appropriate crew to resolve the issue in an expedient manner. If unable to reach the Field Operations Supervisor or Field Inspector, then notify the Service Crew or Dutyman to resolve the issue. Additionally, notify the Wildfire Mitigation & Reliability Engineer as soon as practical. Examples of Level 1 vegetation discrepancies are vegetation contacting, nearly contacting or arcing to high voltage conductor, vegetation contacting low voltage conductor and compromising structure, etc.

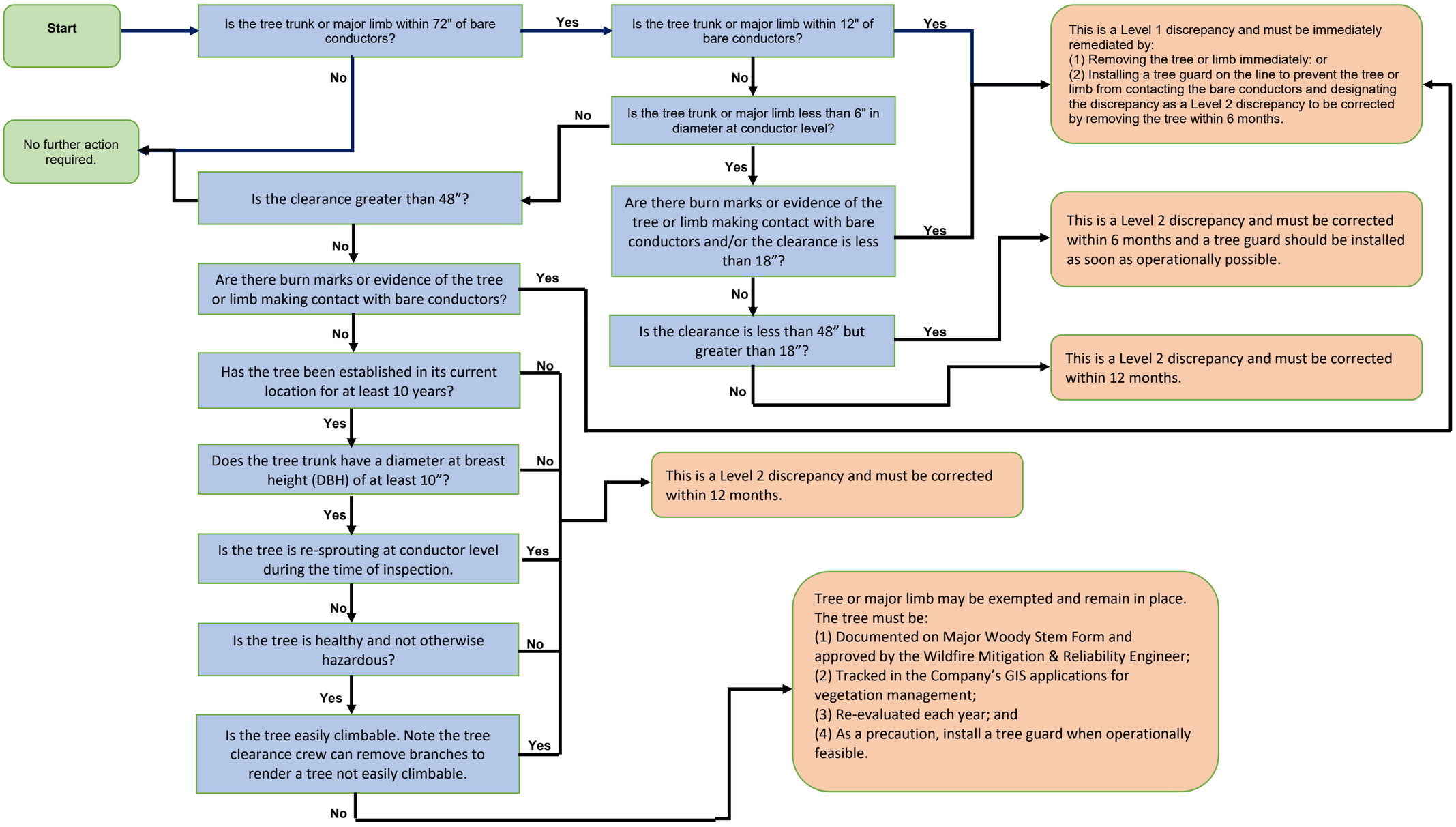
5.4.6. Completed VM QC Checks will be reviewed by the Wildfire Mitigation & Reliability Engineer. The Wildfire Mitigation & Reliability Engineer will issue vegetation orders as applicable to correct any discrepancies noted.

5.4.7. The Wildfire Mitigation & Reliability Engineer will also analyze the results of the VM QC Checks for trends and recommend corrective action to the Utility Manager if deemed necessary. This analysis shall be included in the Quarterly VM Program Assessment report.

5.4.8. The Administrative Support Associate shall check that assigned VM QC checks are being performed in a timely manner and send reminders to individuals alerting them if a VM QC check is overdue.

5.4.9. The VM QC electronic tracking application shall be used, if available, to maintain a record of the VM QC checks, track correction of vegetation orders, and perform program analysis.

Appendix A
Trees and Major Limbs in Close Proximity to Bare Conductors



Appendix B

VM Program Annual QA Audit Areas	
VM Line Clearance	Is the VM program effective at ensuring vegetation meets required clearance specifications?
	Is the VM program on track with the programmed schedule?
	Is the VM program effective in reducing vegetation contact with bare conductors?
	Are any changes to the VM clearance standards delineated in Section 3 necessary?
	Is the VM clearance contractor(s) executing work in accordance with the VM contract(s)?
	Are changes to the VM Contract Scope of Work needed?
VM Inspections	Are VM inspections (patrol, detailed, LiDAR, etc.) being conducted in accordance with the Company's effective Wildfire Mitigation Plan?
	Are the results of VM inspections being documented, tracked, and resolved in a timely manner in accordance with GO-95 Rule 18?
	For each type of inspection performed, assess whether or not the inspection is effective and useful to assisting in achieving VM program objectives?
	Should additional inspections be performed?
	Is the scheduling of inspections appropriate or should the schedule be modified?
VM QC Checks	Are VM QC Checks being performed in accordance with the requirements of this policy and procedure (Section 5.3)?
	Are personnel performing VM QC Checks sufficiently knowledgeable and qualified to perform the checks?
	Are VM QC Checks documented?
	Are discrepancies identified in VM QC checks being tracked and resolved in a timely manner in accordance with GO-95 Rule 18?
	Are VM QC Checks effective at identifying vegetation clearance issues?
	Should modifications to Appendix B VM QC Check Instructions be made?
VM Quarterly Reports	Are the VM Quarterly Reports being conducted per Section 4.1.24?
	Are the VM Quarterly Reports useful in providing management an assessment of the VM program?
	Should changes be made to the content and/or periodicity of the VM Quarterly Reports?
VM Program	Overall, were the Company's VM Program objectives achieved?
	Are changes recommended to the VM Program Policy and Procedures?
	Are changes in the Company's execution of its VM Program warranted?

Appendix C
Vegetation Management Quality Control Form

The VM QC Evaluator shall print the QC map and indicate the location of each discrepancy noted by indicating the discrepancy "type" and an arrow showing the approximate location on the map.

Note: Discrepancies of a significant safety nature that would be classified as Level 1 per GO-95 Rule 18 should be resolved immediately by notifying the Field Operations Supervisor or Field Inspector who will send the appropriate crew to resolve the issue in an expedient manner. If unable to reach the Field Operations Supervisor or Field Inspector, then notify the Service Crew or Dutyman to resolve the issue.

Examples of Level 1 vegetation discrepancies are vegetation contacting, nearly contacting or arcing to high voltage conductor, vegetation contacting low voltage conductor and compromising structure, etc.

The QC Evaluator shall indicate the total number of discrepancies for each type on this form. Upon completion of the QC, the QC Evaluator shall update the online QC form, sign and date the map, and return the map to Wildfire Mitigation & Reliability Engineer.

Discrepancy Types:

Type 1: Any vegetation that is within 72" from primary conductors. **Total #:** _____

Type 2: Trimmed vegetation that is not trimmed to a minimum of 12' from primary conductors. **Total #:** _____

Type 3: Any instances of fast growing trees (poplar, aspen, cottonwood) that were not trimmed out to 12' regardless of proximity to line. **Total #:** _____

Type 4: Any instances of vertical coverage above BVES sub-transmission lines (34.5 kV). **Total #:** _____

Type 5: Tree and Major Limb infractions: See Trees and Major Limbs in Close Proximity to Bare Conductors flowchart. **Total #:** _____

Type 6: Any tree that is dead, rotten or diseased, or portions of otherwise healthy trees, which overhang or lean toward and may fall into a span of power lines. Note that this may apply to trees outside the clearance zone. **Total #:** _____

Total # of discrepancies: _____

Comments:

_____

_____

_____

_____

_____

Appendix H.

Bear Valley Electric Service, Inc. Asset & Inspection Quality Management Plan

December 28, 2021

Approved by: _____

Paul Marconi, President, Treasurer, & Secretary

1. **Purpose:** To provide policies and procedures to establish an audit process to manage and confirm work completed by employees or subcontractors complies with applicable technical specifications, standards, and codes and meet wildfire mitigation, safety, and reliability objectives.

2. **Scope:** The Quality Management Plan is applicable to all transmission and distribution (T&D) and power generation work with the exception of vegetation management work. A separate document, BVES INC Vegetation Management and Vegetation Management QC Programs Policy and Procedures, outlines the Quality Management Plan for vegetation management work.

3. **Definitions:**

3.1. Quality Assurance (QA) is the part of quality management focused on providing confidence that quality requirements will be fulfilled. The confidence provided by quality assurance is twofold —internally to management and externally to customers, government agencies, regulators, certifiers, and other stakeholders.

3.2. Quality Control (QC) is the part of quality management focused on fulfilling quality requirements. While quality assurance relates to how a process is performed or how a product is made, quality control is more the inspection aspect of quality management.

3.3. Quality Improvement is a set of activities that organizations carry out in order to enhance performance (get better results). Improvement can be achieved by means of a single activity or by means of a recurring set of activities.

3.4. Quality Management (QM) is the coordinated activities to direct and control and the organization with regard to quality.

3.5. Inspection is the process of measuring, examining, and testing to gauge one or more characteristics of a product or service and the comparison of these with specified requirements to determine conformity. Products, processes, and various other results can be inspected to make sure that the object coming off a production line, or the service being provided, is correct and meets specifications.

3.6. External (Contracted) T&D Work is defined as when scope of work where the majority and/or critical tasks are performed by a contractor.

3.7. Internal T&D Work is defined as when scope of work where the majority and/or critical tasks are performed by BVES employees.

3.8. Power Plant Work is defined as when the scope of work is on the Power Plant engines and/or supporting systems.

3.9. Substation Work is defined as when the scope of work is within the boundaries of a substation.

4. **Overview:** The primary goal of a Quality Management Plan is to ensure that the deliverables from work are of adequate quality and fit-for-purpose. Quality Assurance, Quality Control, and Quality Improvement are integral components of the Quality Management Plan. T&D and power generation work have a direct impact on wildfire mitigations, public and worker safety, and grid resiliency and reliability; therefore, it is essential that work is completed in a manner that is compliant with all applicable technical specifications, standards, and codes.

QA involves thinking about what is required to ensure quality will be achieved, and to set out processes, standards, procedures and/or policies to do that. Typical results of QA are quality plans, inspection and test plans (ITPs), documentation and training. It moves a step up from finding the failures to aiming to prevent or eliminate them. The focus of QA is to provide confidence that requirements and standards are met, and that processes and system have been followed. Some examples of QA:

- A checklist for assembly of product (the procedure/process as a series of steps that must be done).
- A written procedure.
- A set of processes for construction that cover the whole 'life cycle' from getting system requirements, through designing the system, procuring the materials or parts, constructing to applicable standards, testing, and placing in operation.
- A set of processes for a service that cover the whole 'life cycle' from establishing what the system requires, through designing the service, developing and delivering it.

QC is a procedure or set of procedures intended to ensure that a performed service adheres to a defined set of quality criteria or meets the applicable requirements and technical specifications. While QA refers to the confirmation that specified requirements have been met by a product or service, QC refers to the actual inspection of these elements. In order to implement an effective QC program, the organization must decide which specific standards and technical specifications must be met. Then the extent of QC actions must be determined -- for example, the percentage of structures to be inspected for each job and/or the level of detail for each inspection. Next, the results of the QC actions are analyzed to:

- Determine if quality requirements are being fulfilled,
- Expose areas where quality requirements are not being met,
- Identify areas for process improvement even if quality requirements are being fulfilled, and
- Evaluate if QC inspections are sufficient to determine if quality requirements are being fulfilled.

After this, corrective action and/or process improvements must be decided upon and taken, if warranted. Finally, the QC process must be ongoing to ensure that remedial efforts, if required, have produced satisfactory results and to immediately detect recurrences or new instances of trouble.

5. Roles and Responsibilities:

5.1. Utility Manager. Overall responsible for oversight of the quality management program. Table 6-1, BVES QA Process, in Section 6 details specific areas of responsibility.

5.2. Utility Engineer and Wildfire Mitigation Supervisor. Overall responsible for determining work scope, technical specifications, QA/QC requirements, evaluating QC results, and implementing QC requirements. Table 6-1, BVES QA Process, in Section 6 details specific areas of responsibility.

5.3. Field Operations Supervisor. Overall responsible for fieldwork and supporting the Utility Manager and Utility Engineer and Wildfire Mitigation Supervisor in their responsibilities. Table 6-1, BVES QA Process, in Section 6 details specific areas of responsibility.

5.4. Accounting Supervisor. Overall responsible for providing oversight of the procurement of equipment and material and the contracting of labor and services. Table 6-1, BVES QA Process, in Section 6 details specific areas of responsibility.

5.5. Regulatory Compliance Project Engineer. Responsible for supporting the Utility Engineer and Wildfire Mitigation Supervisor as detailed in Table 6-1, BVES QA Process, in Section 6.

5.6. Project Coordinator. Responsible for conducting QC activities as directed and supporting the Utility Engineer and Wildfire Mitigation Supervisor as detailed in Table 6-1, BVES QA Process, in Section 6.

5.7. GIS Specialist. Responsible for updating the GIS to document work completed and for supporting the Utility Engineer and Wildfire Mitigation Supervisor as detailed in Table 6-1, BVES QA Process, in Section 6.

5.8. Field Inspector. Responsible for conducting QC activities as directed and supporting the Utility Engineer and Wildfire Mitigation Supervisor as detailed in Table 6-1, BVES QA Process, in Section 6.

5.9. Substation Technician. Responsible for conducting QC activities as directed and supporting the Utility Engineer and Wildfire Mitigation Supervisor as detailed in Table 6-1, BVES QA Process, in Section 6.

5.10. Senior Power Plant Operator**.** Responsible for conducting QC activities as directed and supporting the Utility Engineer and Wildfire Mitigation Supervisor as detailed in Table 6-1, BVES QA Process, in Section 6.

5.11. Line Crew Foreman. Responsible for conducting QC activities as directed and supporting the Utility Engineer and Wildfire Mitigation Supervisor as detailed in Table 6-1, BVES QA Process, in Section 6.

5.12. Contracts Administrator. Responsible for ensuring qualified contractors are utilized for contracted work and that the contracting is in accordance with the Company's procurement policies as detailed in Table 6-1, BVES QA Process, in Section 6.

5.13. Buyer. Responsible for ensuring qualified vendors are utilized for procurement of equipment and materials, and that the purchasing is in accordance with the Company's procurement policies as detailed in Table 6-1, BVES QA Process, in Section 6.

5.14. Storekeeper. Responsible for receipt inspecting material and equipment to ensure it meets the specifications and quality requirements as required by the Purchase Order. Responsible for ensuring material and equipment is properly stored after receipt in accordance with manufacturer directions. Table 6-1, BVES QA Process, in Section 6 details specific areas of responsibility.

6. **Quality Management:** Table 6-1, BVES QA Process, outlines is the standard QA process that BVES follows to achieve the desired quality outcome for T&D and power generation work. Appendix A provides a flowchart of the QA process indicating steps that may be performed in parallel and process improvement loops. Depending on the complexity of the work, the Utility Engineer & Wildfire Mitigation Supervisor may require additional quality steps or may omit quality steps from the QA process as applicable to the specific work scope. Section 7 provides additional guidance on how the QA process is to be implemented.

Quality Step	Activity Description	Staff Involved
1	Determine scope of work (construction, repairs, inspections, etc.).	**Responsibility:** Utility Engineer & Wildfire Mitigation Supervisor. **Support:** Regulatory Compliance Project Engineer.
2	Establish applicable work technical specifications, instructions, standards, and material and equipment requirements (Work Order)	**Responsibility:** Utility Engineer & Wildfire Mitigation Supervisor. **Support:** Regulatory Compliance Project Engineer, Utility Planner, Engineering Technician, & Buyer.
3	Determine qualifications required of personnel performing the scope of work.	**Responsibility:** Utility Engineer & Wildfire Mitigation Supervisor. **Support:** Field Operations Supervisor.
4	Determine level of in process QC and work closeout and acceptance QC necessary to ensure quality requirements are satisfied.	**Responsibility:** Utility Engineer & Wildfire Mitigation Supervisor. **Support:** Field Operations Supervisor.

Quality Step	Activity Description	Staff Involved
5	Select staff to conduct applicable QC.	**Responsibility:** Utility Engineer & Wildfire Mitigation Supervisor. **Support:** Field Operations Supervisor.
6	Select qualified contractors (Request for Proposal) and/or staff to conduct the scope of work.	**Responsibility:** Utility Manager **Support:** Utility Engineer & Wildfire Mitigation Supervisor, Field Operations Supervisor, Regulatory Compliance Project Engineer, Accounting Supervisor, & Contracts Administrator.
7	Implement directed in process QC and work closeout QC.	**Responsibility:** Utility Engineer & Wildfire Mitigation Supervisor **Support (as applicable):** Regulatory Compliance Project Engineer, Engineering Technician, Project Coordinator, Field Inspector, Substation Technician, Senior Power Plant Operator, & Line Crew Foreman
8	Procure material and equipment (Purchase Order).	**Responsibility:** Buyer **Support (as applicable):** Accounting Supervisor
9	Receipt inspect material and equipment and properly store it.	**Responsibility:** Storekeeper **Support (as applicable):** Buyer, Accounting Supervisor
10	Commence work per scope of work.	**Responsibility:** Field Operations Supervisor **Support (as applicable):** Utility Manager, Utility Engineer & Wildfire Mitigation Supervisor, & Project Coordinator
11	Conduct directed in process QC at appropriate process control points.	**Responsibility:** Regulatory Compliance Project Engineer **Support (as applicable):** Engineering Technician, Project Coordinator, Field Inspector, Substation Technician, Senior Power Plant Operator, & Line Crew Foreman
12	Evaluate results of in process QC.	**Responsibility:** Regulatory Compliance Project Engineer **Support (as applicable):** Engineering Technician, Project Coordinator, Field Inspector, Substation Technician, Senior Power Plant Operator, & Line Crew Foreman
13	Determine if corrective action and/or process improvements warranted based on in process QC.	**Responsibility:** Utility Engineer & Wildfire Mitigation Supervisor **Support (as applicable):** Utility Manager, Field Operations Supervisor, & Project Coordinator.
14	Take corrective action if warranted based on in process QC.	**Responsibility:** Regulatory Compliance Project Engineer. **Support (as applicable):** Engineering Technician, Project Coordinator, Field Inspector, Substation Technician, Senior Power Plant Operator, & Line Crew Foreman.
15	Implement process improvements if warranted based on in process QC.	**Responsibility:** Utility Engineer & Wildfire Mitigation Supervisor. **Support (as applicable):** Utility Manager & Field Operations Supervisor.

Quality Step	Activity Description	Staff Involved
16	Determine if in process QC is appropriate. If not, implement additional or reduced in process QC as warranted.	**Responsibility:** Utility Engineer & Wildfire Mitigation Supervisor. **Support (as applicable):** Utility Manager & Field Operations Supervisor.
17	At work reported complete, document work performed (GIS update, work order closing, drawing update, inspection report, etc.).	**Responsibility:** Utility Engineer & Wildfire Mitigation Supervisor. **Support (as applicable):** Project Coordinator, GIS Specialist, Field Inspector, Substation Technician, Senior Power Plant Operator & Line Crew Foreman.
18	Conduct directed work closeout QC when work is completed.	**Responsibility:** Regulatory Compliance Project Engineer. **Support (as applicable):** Engineering Technician, Project Coordinator, Field Inspector, Substation Technician, Senior Power Plant Operator, & Line Crew Foreman.
19	Evaluate results of work closeout QC.	**Responsibility:** Regulatory Compliance Project Engineer **Support (as applicable):** Engineering Technician, Project Coordinator, Field Inspector, Substation Technician, Senior Power Plant Operator, & Line Crew Foreman
20	Determine if corrective action and/or process improvements warranted based on work closeout QC.	**Responsibility:** Utility Engineer & Wildfire Mitigation Supervisor **Support (as applicable):** Utility Manager, Field Operations Supervisor, & Project Coordinator.
21	Take corrective action if warranted based on work closeout QC.	**Responsibility:** Regulatory Compliance Project Engineer. **Support (as applicable):** Engineering Technician, Project Coordinator, Field Inspector, Substation Technician, Senior Power Plant Operator, & Line Crew Foreman.
22	If rework is necessary, ensure applicable in process QC and work close QC are conducted as appropriate.	**Responsibility:** Regulatory Compliance Project Engineer **Support (as applicable):** Engineering Technician, Project Coordinator, Field Inspector, Substation Technician, Senior Power Plant Operator, & Line Crew Foreman
23	Implement process improvements if warranted based on work closeout QC.	**Responsibility:** Utility Engineer & Wildfire Mitigation Supervisor. **Support (as applicable):** Utility Manager & Field Operations Supervisor.
24	Determine if work closeout QC is appropriate. If not, implement additional or reduced work closeout QC as warranted.	**Responsibility:** Utility Engineer & Wildfire Mitigation Supervisor. **Support (as applicable):** Utility Manager & Field Operations Supervisor.

Quality Step	Activity Description	Staff Involved
25	Closeout Work Order.	**Responsibility:** Utility Engineer & Wildfire Mitigation Supervisor. **Support (as applicable):** Field Operations Supervisor, Accounting Supervisor, Project Coordinator, GIS Specialist, Field Inspector, Substation Technician, Senior Power Plant Operator & Line Crew Foreman.

7. **Additional QM Guidance.** As discussed in Section 6, depending on the complexity of the work, the Utility Engineer & Wildfire Mitigation Supervisor (for T&D work) and Field Operations Supervisor (for Power Plant work) may require additional quality steps or may omit quality steps from the QA process as applicable to the specific work scope. This section provides guidance to be applied when making the determination for what QA will be applied to specific work and activities.

7.1. Equipment and Material.

7.1.1. *Standard Stock Equipment and Material:* The Utility Engineer & Wildfire Mitigation Supervisor shall approve the technical specifications of equipment and material to be maintained in standard inventory stock. Utility Engineer & Wildfire Mitigation Supervisor shall coordinate with the Field Operations Supervisor to determine standard stock minimum and maximum value amounts. Additionally, the Utility Engineer & Wildfire Mitigation Supervisor shall work with the Field Operations Supervisor when determining the specific technical specifications of material to be maintained in stock. The Buyer will place purchase orders for equipment and material to qualified vendors to replenish stock to avoid going below the minimum inventory amounts. The Storekeeper will receipt inspect all standard stock items and report discrepancies to the Buyer and Utility Engineer & Wildfire Mitigation Supervisor. For discrepancies affecting the technical specifications or performance of materials, the Utility Engineer & Wildfire Mitigation Supervisor will direct what corrective action(s) should be taken. For non-technical discrepancies (i.e., wrong amount of material received), the Buyer will direct what corrective action(s) should be taken.

7.1.2. *Non-Standard Stock Equipment and Material:* The Utility Engineer & Wildfire Mitigation Supervisor shall approve the technical specifications of non-standard stock equipment and material prior to purchasing. The Buyer will place purchase orders for the non-standard equipment and material as listed on the approved requisition to qualified vendors. When the equipment and material is received, the Storekeeper will receipt inspect it and will inform the Utility Engineer & Wildfire Mitigation Supervisor. The Utility Engineer & Wildfire Mitigation Supervisor will determine if an additional receipt inspection is necessary by a Subject Mater Expert. The following additional receipt inspections will be required by the Utility Engineer & Wildfire Mitigation Supervisor at a minimum:

- Substation equipment, capacitor banks, electronic fuse trip savers, and field switches will be receipt inspected by the Substation Technician.

- Distribution overhead and pad mounted transformers will be receipt inspected by a Journeyman Lineman or the Substation Technician.
- IT and communications equipment and material will be inspected by IT staff.
- Weather stations and other digital equipment and sensors will be receipt inspected by IT staff, Substation Technician and/or other SME staff as designated by the Utility Engineer & Wildfire Mitigation Supervisor.
- Meters and meter related equipment and material shall be receipt inspected by the Meter Testman.
- Power Plant equipment and material will be receipt inspected by the Power Plant Senior Operator.

Discrepancies noted in the receipt inspections shall be reported to the Buyer and Utility Engineer & Wildfire Mitigation Supervisor. For discrepancies affecting the technical specifications or performance of materials, the Utility Engineer & Wildfire Mitigation Supervisor will direct what corrective action(s) should be taken. For non-technical discrepancies (i.e., wrong amount of material received), the Buyer will direct what corrective action(s) should be taken.

7.1.3. *Equipment and Material Ordered for Specific Projects:* The Utility Engineer & Wildfire Mitigation Supervisor will direct if any additional SME receipt inspection(s) are necessary in addition to the Storekeeper's receipt inspection for equipment and material ordered to support a specific project. For example, if the equipment and material is the same equipment and material maintained in stock, the Storekeeper's receipt inspection would normally be sufficient. The Utility Engineer & Wildfire Mitigation Supervisor should use the guidance in Section 7.1.2 to determine if additional receipt inspections are necessary.

7.2. Contracted Services. The Utility Manager shall be responsible for contracting for work from qualified contractors by following the Company's procurement policy. In coordination with the Utility Engineer & Wildfire Mitigation Supervisor, Field Operations Supervisor, Accounting Supervisor, and Contracts Administrator, the Utility Manager shall develop the contracted scope of work and issue a Request for Proposal to qualified contractors. The Utility Manager shall follow the Company's procurement policy in selecting the best value bid from qualified contractors and awarding the contract.

7.3. External (Contracted) T&D Work. In coordination with the Field Operations Supervisor, the Utility Engineer & Wildfire Mitigation Supervisor shall approve specific in-process and closeout QC checks for external T&D work. The Utility Engineer & Wildfire Mitigation Supervisor shall utilize the following guidance:

- Prior to authorizing work, the Utility Engineer & Wildfire Mitigation Supervisor shall review and approve the design, construction drawings, and technical specifications and then issue a Work Order to direct the specified work.

- The Utility Manager shall establish a contract with a qualified contractor per the Company's procurement policy.
- Equipment and material shall be ordered per Section 7.1 above as applicable once the Work Order is opened.
- The Utility Engineer & Wildfire Mitigation Supervisor in coordination with the Field Operations Supervisor shall determine the specific in process and closeout QC checks to be conducted and select the staff that will conduct the QC checks. Generally, QC checks shall be performed by the Field Inspector or a BVES Journeyman Lineman Foreman.
- Staff that will be involved in the QC checks shall review the Work Order.
- Once the Work Order is authorized, equipment and material is received, contract in place for the contracted work, and the work schedule supports the work, the Field Operations Supervisor in coordination with the Project Coordinator will direct the contractor to conduct the work.
- In-process QC checks may be designated to be conducted periodically (for example, daily when work is in progress), randomly (for example, unannounced when work is in progress), as task related inspections (for example, prior to installing a ground rod the BVES inspector must be on site), and/or a combination the later methods.
- Results of in-process QC checks should be reviewed with the Regulatory Compliance Project Engineer and the Utility Engineer & Wildfire Mitigation Supervisor and corrective action directed if necessary.
- Closeout QC checks shall be designed to confirm the as-built drawings, inspect the quality of the workmanship, and ensure that the designated materials were installed. Additionally, the closeout QC checks will include an audit of the Work Order package.
- When work is reported complete, the Field Operations Supervisor shall direct closeout QC checks be conducted.
- Results of closeout QC checks should be reviewed with the Regulatory Compliance Project Engineer and the Utility Engineer & Wildfire Mitigation Supervisor and corrective action directed if necessary.
- Upon receipt of an invoice for the work, the Project Coordinator shall perform a work package audit and validate the materials and work performed. Project Coordinator shall also perform a validation of billing units, and ensures the Field Inspector's verification of work completion and approval for billing. Invoices will not be approved unless the work meets required standards per the scope of work.

The Utility Engineer & Wildfire Mitigation Supervisor shall review the results of in process and closeout QC checks and the completed Work Order package and will direct re-work and/or other corrective action if necessary. Once, the Utility Engineer & Wildfire Mitigation Supervisor is satisfied the work is of satisfactory quality, the Work Order may be closed out.

7.4. Internal T&D Work. In coordination with the Field Operations Supervisor, the Utility Engineer & Wildfire Mitigation Supervisor shall approve specific in process and closeout QC checks internal T&D work. The Utility Engineer & Wildfire Mitigation Supervisor shall utilize the following guidance:

- Prior to authorizing work, the Utility Engineer & Wildfire Mitigation Supervisor shall review and approve the design, construction drawings, and technical specifications and then issue a Work Order to direct the specified work.
- Equipment and material shall be ordered per Section 7.1 above as applicable once the Work Order is opened.
- The Utility Engineer & Wildfire Mitigation Supervisor in coordination with the Field Operations Supervisor shall determine the specific in process and closeout QC checks to be conducted and select the staff that will conduct the QC checks. Generally, QC checks shall be performed by a BVES Journeyman Lineman Foreman.
- Staff that will be involved in the QC checks shall review the Work Order.
- Once the Work Order is authorized, equipment and material is received, contract in place for the contracted work, and the work schedule supports the work, the Field Operations Supervisor in coordination with the Project Coordinator will direct the BVES crew to conduct the work.
- In-process QC checks may be designated to be conducted periodically (for example, daily when work is in progress), randomly (for example, unannounced when work is in progress), as task related inspections (for example, prior to installing a ground rod the BVES inspector must be on site), and/or a combination the later methods.
- Results of in-process QC checks should be reviewed with the Regulatory Compliance Project Engineer and the Utility Engineer & Wildfire Mitigation Supervisor and corrective action directed if necessary.
- Closeout QC checks shall be designed to confirm the as-built drawings, inspect the quality of the workmanship, and ensure that the designated materials were installed. Additionally, the closeout QC checks will include an audit of the Work Order package.
- When work is reported complete, the Field Operations Supervisor shall direct closeout QC checks be conducted.
- Results of closeout QC checks should be reviewed with the Regulatory Compliance Project Engineer and the Utility Engineer & Wildfire Mitigation Supervisor and corrective action directed if necessary.
- The Regulatory Compliance Project Engineer shall perform a work package audit and validate the materials and work performed.

The Utility Engineer & Wildfire Mitigation Supervisor shall review the results of in process and closeout QC checks and the completed Work Order package and will direct re-work and/or other corrective action if necessary. Once, the Utility Engineer & Wildfire Mitigation Supervisor is satisfied the work is of satisfactory quality, the Work Order may be closed out.

7.5. Substation Work. The Utility Engineer & Wildfire Mitigation Supervisor shall approve specific in process and closeout QC checks for substation work. The Utility Engineer & Wildfire Mitigation Supervisor shall utilize the following guidance:

- Prior to authorizing work, the Utility Engineer & Wildfire Mitigation Supervisor shall review and approve the design, construction drawings, and technical specifications and then issue a Work Order to direct the specified work.
- The Utility Engineer & Wildfire Mitigation Supervisor shall approve a specific testing and commissioning program that must be satisfactorily completed prior to accepting major substation work.
- The Utility Manager shall establish a contract with a qualified contractor per the Company's procurement policy.
- Equipment and material shall be ordered per Section 7.1 above as applicable once the Work Order is opened.
- The Utility Engineer & Wildfire Mitigation Supervisor in coordination with the Field Operations Supervisor shall determine the specific in process and closeout QC checks to be conducted and select the staff that will conduct the QC checks. Generally, QC checks shall be performed by the Substation Technician or a BVES Journeyman Lineman Foreman.
- Staff that will be involved in the QC checks shall review the Work Order.
- Once the Work Order is authorized, equipment and material is received, contract in place for the contracted work, and the work schedule supports the work, the Field Operations Supervisor in coordination with the Project Coordinator will direct the contractor to conduct the work.
- In-process QC checks may be designated to be conducted periodically (for example, daily when work is in progress), randomly (for example, unannounced when work is in progress), as task related inspections (for example, prior to making up switch connections, the BVES inspector must be on site), and/or a combination the later methods.
- Results of in-process QC checks should be reviewed with the Regulatory Compliance Project Engineer and the Utility Engineer & Wildfire Mitigation Supervisor and corrective action directed if necessary.
- Closeout QC checks shall be designed to confirm the as-built drawings, inspect the quality of the workmanship, and ensure that the designated materials were installed. Additionally, the closeout QC checks will include an audit of the Work Order package.
- When work is reported complete, the Field Operations Supervisor shall direct closeout QC checks be conducted.
- Results of closeout QC checks should be reviewed with the Regulatory Compliance Project Engineer and the Utility Engineer & Wildfire Mitigation Supervisor and corrective action directed if necessary.
- When conditions are met, the Field Operations Supervisor shall direct performance of the testing and commissioning program. The testing and commissioning program should generally be conducted by a third party independent of the contractor performing the work and/or the Substation Technician. The Substation Technician shall oversee any third party that performs the testing and commissioning program.
- The Utility Engineer & Wildfire Mitigation Supervisor shall review the results of the testing and commissioning program prior to accepting the work as being complete.

- Upon receipt of an invoice for the work, the Project Coordinator shall perform a work package audit and validate the materials and work performed. Project Coordinator also performs a validation of billing units, and ensures the Substation Technician's verification of work completion and approval for billing. Invoices will not be approved unless the work meets required standards per the scope of work.

Utility Engineer & Wildfire Mitigation Supervisor shall review the results of closeout QC checks and testing and commissioning program, and will direct re-work and/or other corrective action if necessary. Once, the Utility Engineer & Wildfire Mitigation Supervisor is satisfied the work is of satisfactory quality, the Work Order may be closed out.

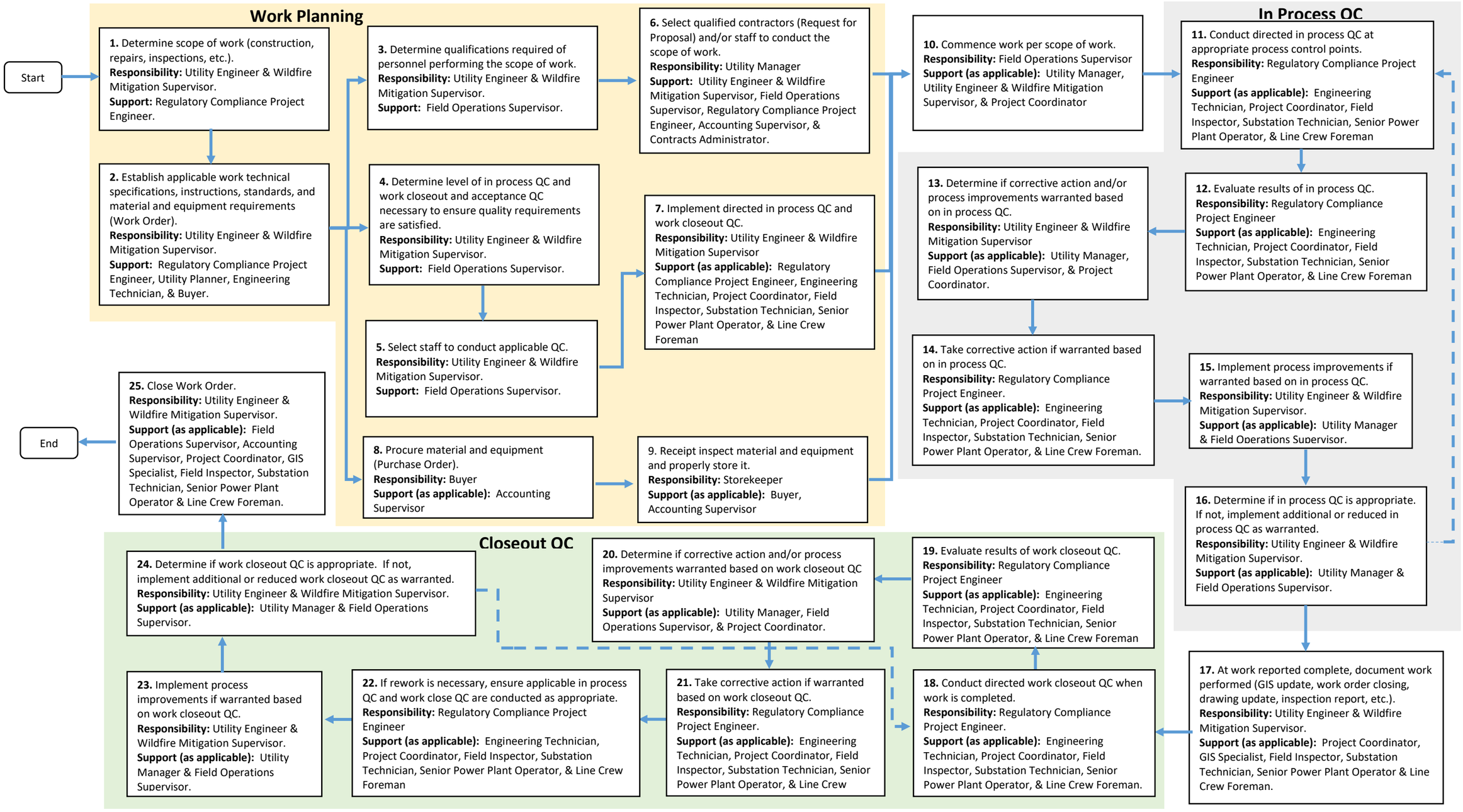
7.6. Power Plant Work. The Field Operations Supervisor in coordination with the Senior Power Plant Operator shall approve specific in process and closeout QC checks for power plant work. The Field Operations Supervisor shall utilize the following guidance:

- Prior to authorizing work, the Field Operations Supervisor in coordination with the Senior Power Plant Operator shall review and approve the design, construction drawings, and technical specifications and then issue a Work Order with Engineering and Planning support to direct the specified work.
- The Field Operations Supervisor in coordination with the Senior Power Plant Operator shall approve a specific testing and commissioning program that must be satisfactorily completed prior to accepting major power plant work.
- The Utility Manager shall establish a contract with a qualified contractor per the Company's procurement policy.
- Equipment and material shall be ordered per Section 7.1 above as applicable once the Work Order is opened.
- The Field Operations Supervisor in coordination with the Senior Power Plant Operator shall determine the specific in process and closeout QC checks to be conducted and select the staff that will conduct the QC checks. Generally, QC checks shall be performed by the Senior Power Plant Operator or Power Plant Operator.
- Staff that will be involved in the QC checks shall review the Work Order.
- Once the Work Order is authorized, equipment and material is received, contract in place for the contracted work, and the work schedule supports the work, the Field Operations Supervisor in coordination with the Project Coordinator will direct the contractor to conduct the work.
- In-process QC checks may be designated to be conducted periodically (for example, daily when work is in progress), randomly (for example, unannounced when work is in progress), as task related inspections (for example, prior to reassembly of an engine cylinder, the BVES inspector must be on site), and/or a combination the later methods.
- Results of in-process QC checks should be reviewed with the Field Operations Supervisor and the Senior Power Plant Operator and corrective action directed if necessary.

- Closeout QC checks shall be designed to confirm the as-built drawings, inspect the quality of the workmanship, and ensure that the designated materials were installed. Additionally, the closeout QC checks will include an audit of the Work Order package.
- When work is reported complete, the Field Operations Supervisor shall direct closeout QC checks be conducted.
- Results of closeout QC checks should be reviewed with the Field Operations Supervisor and the Senior Power Plant Operator and corrective action directed if necessary.
- When conditions are met, the Field Operations Supervisor shall direct performance of the testing and commissioning program. The testing and commissioning program should generally be conducted by a third party independent of the contractor performing the work and/or the Senior Power Plant Operator. The Senior Power Plant Operator shall oversee any third party that performs the testing and commissioning program.
- The Field Operations Supervisor and the Senior Power Plant Operator shall review the results of the testing and commissioning program prior to accepting the work as being complete.
- Upon receipt of an invoice for the work, the Project Coordinator shall perform a work package audit and validate the materials and work performed. Project Coordinator also performs a validation of billing units, and ensures the Senior Power Plant Operator's verification of work completion and approval for billing. Invoices will not be approved unless the work meets required standards per the scope of work.

The Field Operations Supervisor and Senior Power Plant Operator shall review the results of closeout QC checks and testing and commissioning program, and will direct re-work and/or other corrective action if necessary. Once, the Utility Engineer & Wildfire Mitigation Supervisor is satisfied the work is of satisfactory quality, the Work Order may be closed out.

Appendix A: BVES QA Process Flow Chart



Appendix I.

Bear Valley Electric Service, Inc.
Public Safety Power Shutoff Plan

January 31, 2023

Approved by: _____

Paul Marconi, President, Treasurer & Secretary

Bear Valley Electric Service, Inc.
Public Safety Power Shutoff Plan

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List of Appendices

1. Purpose and Overarching Guidelines

1.1. Purpose of PSPS. The purpose of proactive de-energization is to promote public safety by decreasing the risk of utility-infrastructure as a source of wildfire ignitions. Generally, proactive de-energization will be referred to as Public Safety Power Shutoff ("PSPS"), which is consistent with the terminology used by the major California investor owned utilities. As a measure of last resort, PSPS activation is consistent with the statutory obligation to protect public safety pursuant to Public Utilities Codes ("PUCs") § 451 and 399.2(a).

1.2. Purpose of PSPS Plan. This document provides the policies and procedures of Bear Valley Electric Service, Inc. ("BVES") follows with regard to PSPS and addresses the following operational issues:

- PSPS advance planning and preparations prior to the fire season.
- Procedures leading up to, during, and following extreme fire threat weather events in which PSPS may be invoked. These include BVES's operational fire prevention actions and procedures.
- Public outreach, coordination with local and government officials, advisory boards, public safety partners, representatives of people/communities with access and functional needs ("AFN"), tribal representatives (if applicable), senior citizen groups, business owners, and public health and healthcare providers including those with medical needs. This includes a Community Resource Center ("CRC") and communications regarding PSPS.
- Establish guidelines for PSPS exercises.

1.3. Measure of Last Resort. BVES must only deploy PSPS as a ***measure of last resort*** and must justify why PSPS was deployed over other possible measures or actions. This plan provides the course of action to be followed prior to enacting a PSPS, demonstrating that enacting a PSPS is the measure of last resort.

Customer Engagement. BVES will work to engage its customers and other impacted stakeholders to promote understanding of the purpose of PSPS actions, BVES's process for initiating it, how to safely manage a PSPS event, and the impacts if deployed.

1.4. PSPS Coordination. Deploying PSPS requires a coordinated effort across multiple state and local jurisdictions and agencies. Coordination in preparation for PSPS is a shared responsibility between BVES, public safety partners, and local governments; however, BVES is ultimately responsible and accountable for the safe deployment of PSPS. BVES must work with the California Governor's Office of Emergency Services to integrate its warning programs with the agencies and jurisdictions within California that have a role in ensuring that the public is notified before, during, and after emergencies. Throughout this document the collective phrase "Local Government, Agencies, and Partner Organizations" includes applicable local government and agencies, utilities, key

non-government and commercial entities and also includes critical facilities and critical infrastructure. Further discussion is provided in Section 5.

1.5. PSPS Is an Emergency. Consequences of PSPS should be treated in a similar manner as other emergencies that may result in loss of power, such as earthquakes or floods.

1.6. Reporting and Continuous Improvement. BVES must report on lessons learned from each PSPS event, including instances when PSPS protocols are initiated, but de-energization does not occur, to continually improve PSPS practices.

BVES must work together with the other utilities to share information and advice to create effective and safe PSPS programs at each utility and ensure utilities are sharing current and accurate information with public safety partners.

2. Chain of Responsibility

2.1. President holds overall responsibility for the PSPS Plan and ensuring it is properly implemented, resourced, trained upon, executed, and updated as appropriate. Furthermore, the President shall ensure proper communications and coordination with local government, agencies and customers.

2.2. Utility Manager is responsible for executing the following actions under BVES PSPS Plan:

- Direct emergency operations under this Plan and the EDRP;
- Ensure monitoring of weather forecasts and actual weather conditions is properly conducted by appropriate staff;
- Direct (the operational activities related to system line-up and PSPS as warranted;
- Ensure Field Operations staff provide timely and accurate information to the Customer Service Supervisor and other staff performing customer and public information functions;
- Work closely and coordinate with counterparts at local government and agencies leading up to a PSPS event, during PSPS, and during restoration procedures ;
- Activate the Wildfire Response Team (WRT) for PSPS procedures
- Determine the appropriate staff composition of the WRT when activated;
- Train or assign training to BVES staff with roles required by this Plan;
- Ensure resources are available to properly execute this plan and identifying any gaps in resources to the President as well as proposed remedies;
- Ensure all regulations are followed required reports are timely submitted to the applicable regulatory bodies, including the Commission and Energy Safety;
- Evaluate whether changes to this plan are warranted and implementing any necessary changes.

2.3. Field Operations Supervisor is responsible for executing or directing the following operations in the field to include:

- Monitor (or direct monitoring) weather advisories, consultant forecasts, and the NFDRS forecast at least daily during the fire season;
- Direct and manage operational system line-ups based on conditions as described in this plan;
- Direct and coordinate PSPS procedures in this plan;
- Direct the activities of the WRT;
- Control all switch and system lineup operations;
- Provide (or ensure) timely and accurate information to the Customer Service Supervisor and/or other staff performing customer and public information functions;
- Inform the Utility Manager of any system issues;
- Collect relevant data and maintain documentation including, but not limited to, inspections, operational system lineup, and PSPS activities; and
- Submit to the Utility Manager recommended changes to this plan as warranted.

2.4. Utility Engineer & Wildfire Mitigation Supervisor is responsible for fire prevention planning and engineering design of the electric distribution, sub-transmission and substations to include:

- Ensure system design and construction is in compliance with applicable government rules and regulations to mitigate fire;
- Develop distribution, sub-transmission and substations designs to reduce fire risk;
- Research evaluate, and source materials fire resistant materials and equipment;
- Develop device protective settings and select fuses to enhance fire prevention while taking into account reliability and the served load;
- Support Field Operations and the WRT as directed by the Utility Manager in the execution of system operations per this plan; and
- Submit recommended changes to this plan to the Utility Manager as warranted.

2.5. Customer Program Specialist under the supervision of the Customer Service Supervisor and the Energy Resource Manager is responsible for the BVES Communications Plan to include:

- Notify (or direct to notify) local government, agency, and customer notifications under this plan;
- Establish and maintain customer communications methods and systems equipment to support proactive de-energization notifications per this plan;
- Train staff assigned to issue customer and public information via media notification statements and customer communications methods;
- Developing (or causing to be developed) the contact list of local government and agencies per this plan;
- Direct a customer education strategy to inform customers about BVES's fire mitigation programs including PSPS; and
- Submit to the Utility Manager recommended changes to this plan as warranted.

3. Considerations for Plan Activation

3.1. Considerations for PSPS Plan Activation. The BVES service area is susceptible to several conditions in which BVES may activate its PSPS Plan. These are:

- Extreme fire threat weather and fuel conditions in BVES's service area that warrant BVES to implement PSPS on BVES owned and operated power lines in some or all areas of its service area.
- Extreme fire threat weather and conditions outside of the BVES's service area, in which Southern California Edison (SCE) directs a PSPS on SCE-owned/operated power lines leading to a partial or complete loss of the three SCE supply lines into the BVES service area. This threat is higher than the likelihood that BVES initiates its own PSPS due to the greater presence extreme fire threat weather and fuel conditions across SCE's territory than in the BVES service area. In such a case, BVES would seek to supply power to its customers using all available power resources.
- In the circumstance that a PSPS is warranted in some or all areas of the BVES service area and SCE has implemented PSPS actions that result in a partial or complete loss of supplies to the BVES service area.

4. BVES Fire Prevention Procedures

4.1. Fire Prevention.

4.1.1. BVES' Wildfire Mitigation Plan provides descriptions of system hardening projects, operations and maintenance programs, and other initiatives being pursued by BVES to mitigate wildfire. This PSPS Plan is an extension of the Wildfire Mitigation Plan's fire prevention efforts.

4.1.2. As system improvements are made and environmental conditions change, the plan will evolve to meet these changes. In creating the plan, BVES has incorporated the input and interests of our stakeholders to ensure that the needs of the community are effectively met while mitigating the risk of wildfire. Community outreach and communications are a key component of this plan as well as maintaining partnerships with the Big Bear Valley Mountain Mutual Aid Association, City of Big Bear Lake, San Bernardino County, Big Bear Fire Department, Big Bear Lake Sheriff's Department, other local agencies, local utilities, local radio stations, news media, and the public.

4.1.3. PSPS is an operational safety measure of last resort to prevent wildfires. It is logical that the PSPS Plan include BVES's operational fire prevention plan measures so that the progression of operational steps to be taken by BVES staff is properly sequenced and understood by all stakeholders.

4.1.4. Regulatory Background

Ordering Paragraph 5 of D.12-01-032 required BVES to prepare a Fire Prevention Plan to identify the occurrence of 3-second wind gusts that exceed the structural and mechanical design standards for overhead power-line facilities.

D.14-05-020 modified D.12-01-032 by eliminating the requirement to identify 3-second wind gusts in real time, provided a utility will still address the situation when all three of the following conditions occur simultaneously:

(i) 3-second wind gusts exceed the structural or mechanical design standards for the affected overhead power-line facilities,

(ii) these 3-second gusts occur during a period of high fire danger, and

(iii) the affected facilities are located in a high fire-threat area.

D.14-05-020 also required utilities to identify the specific parts of their service territories where all three conditions listed in Ordering Paragraph l (a) occur simultaneously, based on a minimum probability of 3% over a 50-year period that 3-second wind gusts which exceed the design standards for the affected facilities will occur during a Red Flag Warning in a high fire-threat area. Ordering Paragraph 2 of D.17-12-024 requires each electric investor-owned utility have a fire prevention plan for facilities in the High Fire-Threat District containing the information specified in General Order ("GO") 166, Standard 1, Part E, to the extent applicable to the electric utility's service area and to file a report containing the fire prevention plan annually beginning October 31, 2018.

4.1.5. This plan lists and describes the operational fire prevention measures BVES intends to implement to mitigate the threat of power-line fires generally and in the situation where all three of the conditions listed in GO-166, Standard 1, Part E occur simultaneously. BVES has identified areas potentially susceptible to these conditions. These areas are heavily forested, abundant in available fuel and could threaten the system when high winds occur. When these conditions exist, BVES has pre-identified areas that are targeted for PSPS in Appendix B.

4.2. Seasonal Considerations. Understanding BVES' system demand, service area environmental factors, and wildfire risk drivers allows BVES to operate the system in a manner that is optimized for public safety including wildfire mitigation, reliability, and increased quality of service delivered.
The non-winter months (April through October) bring the following characteristics to BVES's service area:

- Lower load demand due to reduced or minimal tourism and no ski resort snowmaking, therefore BVES' load is generally lowest in April, May, September and October; the load increases somewhat in the summer months of June, July and August;
- Higher ambient temperatures with low humidity that rarely require air conditioning; and
- Higher wildfire risk due to low moisture content in the service area and increase presence of fuel (dry vegetation).

Therefore, during the winter months as described above, the BVES distribution system is optimized for safety and reliability. Following the winter season, the system operational focus is more defensive and optimized almost entirely for fire prevention.

4.3. Daily-to-Real-time Considerations. The daily and even hourly changes in environmental and system conditions can change the risk of wildfire significantly. Therefore, the factors affecting Daily-to-Real-time considerations must be understood and be evaluated by the Operations Team to develop the appropriate risk mitigation package on a daily or even more frequently when adverse factors develop or are expected to develop. Some the factors that the Operations Team needs to consider are:

- **Forecasted and actual weather:** Sustained wind speed, wind gust strength, dryness (humidity), precipitation, etc.
- **Fuel inventory:** Buildup of ground cover vegetation, timber on the ground, thickness of forest, etc.
- **Dryness of fuel:** Dryness of dead vegetation, timber on the ground, etc.
- **System design limitations:** Installed bare conductor configuration, conventional expulsion fuses installed in the system, switches with limited protective and remote control capabilities, etc.
- **T&D equipment failure or degradation:** Protective switch failure, loss of remote connectivity with protective devices, etc.
- **Missed or delayed inspection:** Detailed inspection or patrol per GO-95 missed or delayed, GO-174 inspection missed or delayed, other inspection deemed critical missed or delayed, etc.
- **Delayed correction of fire hazard inspection discrepancies:** Correction of "must be fixed before fire season" discrepancies, GO-95 discrepancies not corrected within required periodicity, etc.
- **Operational deviations from normal lineup:** Abnormal system lineup due to planned maintenance, system upgrades, equipment degradation, etc.
- **Degradation in situational awareness:** Failure or loss of connectivity with installed weather stations, loss of NFDRS (e.g., during Federal Government shutdown), loss of remote circuit monitoring, loss of HD Alert Camera coverage, etc.
- **Resource degradation:** Insufficient line crews and/or other key operation staff, loss of utility vehicles, etc.

Daily-to-Real-time considerations always override seasonal considerations.

4.4. Pre-Planned Operational Posture. The operational actions to be taken for forecasted and actual weather, fuel inventory, dryness of fuel, and system design limitation consideration factors are easily pre-determined. Whereas the response to the rest of the Daily-to-Real-time consideration factors, must be individually evaluated to determine their impact on the overall plan. For example, if certain

weather stations suffer a failure, the Utility Manager may require the Wildfire Response Team be deployed sooner in a high wind situation.

4.4.1. **Seasonal Operational Posture**: The following operational actions are to be taken during fire season and are incorporated into BVES's PSPS planning. Generally, BVES considers April to October but specific dates will be recommended by the Field Operations Supervisor and approved by the Utility Manager based upon current conditions and forecasted weather outlook.

- The Radford Line is de-energized. The line will be ready for re-energization should the load demand require it, for planned maintenance or system upgrades, or for other operational reason approved by the Utility Manager. The Utility Manger will inform the President of any changes in the status of the Radford Line.
- Certain Auto-Reclosers (ARs) and Switches are placed in "Manual" (e.g., they will not shut and test upon detecting a fault). The Field Operations Supervisor develops a list of the devices to be placed in "Manual" and forwards the list to the Utility Manager and President.
- All Fuse TripSavers shall be placed in "Manual" (i.e., they will not shut and test upon detecting a fault).
- Due to reduced load in non-winter period, the Utility Engineer & Wildfire Mitigation Supervisor developed specific settings for Auto-Recloser and other protective devices in the field to enhance fire prevention. The list of affected devices will be provided to the Utility Manager and the Field Operations Supervisor. Additionally, the Field Operations Supervisor will be provided the settings that the Field Operations staff will be required to set on each device. Engineering staff will not change device settings without the Field Operations Supervisor's authorization.
- When an Auto-Recloser, Switch, or Fuse TripSaver placed in "Manual" due to the above policy trips open, the affected portions of the de-energized circuit or feeder will be patrolled prior to re-energizing them. If the cause is identified and the fire risk is "Green" or "Yellow," the Field Operations Supervisor may authorize the Line Crew to test the device once. If the device trips open again, the circuit or feeder must be thoroughly patrolled to determine the fault and ensure there is no risk of causing fire.

4.4.2. **Daily-to-Real-time Operational Posture**: The pre-planned operational postures provided in this section take into account the System Design Limitations factor.

BVES' forecasting framework for fire prevention measures relies on the National Fire Danger Rating System (NFDRS) and contracted meteorologist evaluation of the local forecast. The entire BVES system is in NFDRS Predictive Service Area SC10. The predictive service provides a wildfire risk forecast based on weather,

on fuel build up, and fuel dryness among other factors and designates high-risk days as indicated in Table 4-1, Fuel Dryness and High-Risk Days, below:

Table 4-1: Fuel Dryness and High-Risk Days

Fuel Dryness & High Risk Days	Rating	Description
Green	**Moist**	Little to no risk of fires.
Yellow	**Dry**	Low risk of large fires in the absence of a "High Risk" event.
Brown	**Very Dry**	Low/moderate risk of large fires in the absence of a "High Risk" event.
Orange	**High-Risk Day**	At least a 20% chance of a "Large Fire" due to a combination of either "Dry" or "Very Dry" fuel dryness and a critical burn environment (e.g., Santa Ana winds).
Red	**High-Risk Day**	At least a 20% chance of a "Large Fire" due to a combination of either "Dry" or "Very Dry" fuel dryness and an ignition trigger (lightening).

An example of the seven-day forecast is provided below in Table 4-2, Example NFDRS Forecast:

Table 4-2: Example NFDRS Forecast

SC09-Western Mountains							
SC10-Eastern Mountains							
SC11-Southern Mountains							

The NFDRS is generally updated 3-5 times per day. Additionally, it should be noted that it has been observed that during the Federal Government shutdowns due to budget issues, the NFDRS forecast is suspended. Therefore, during these periods, the Utility Manager must recommend measures to mitigate this degradation in situational awareness.

The contracted meteorologist integrates the NFDRS with the detailed local forecast specific to BVES's service area and develops a risk rating as indicated below in Table 4-3, Significant Fire Potential.

Table 4-3: Significant Fire Potential

The Field Operations Supervisor will monitor the fire risk as designated by the consultant meteorologist, the NFDRS fire danger forecast, and indications from installed weather stations, which are equipped with alarms based on actual wind speed and then direct the proper operational pre-planned response. As indicated in Table 4-4 below, “Brown”, “Red”, and “Orange” are considered elevated fire threat conditions that require the BVES system to be configured for fire prevention over reliability concerns.

Table 4-4: Operational Direction Based on Wildfire Risk Forecast

Operations Pre-Planned Action	Green	Yellow	Brown	Orange	Red
Auto-Reclosers and Protective Switches with Reclosing Capability[1]	Automatic[1]	Automatic[1]	Manual (Non-Automatic)		
Patrol following circuit or feeder outage[2]	No[2,3]	No[2,3]	Yes		
Fuse TripSavers[1]	Automatic[1]	Automatic	Manual (Non-Automatic)		
Radford Line Use[4]	May be energized	May be energized	De-energize[5]	De-energize	De-energize
Deploy Wildfire Risk Team(s) to "high risk" areas	No	No	Yes, if forecasted sustained wind or 3-second wind gusts expected to exceed 55 or actual sustained wind or 3-second wind gusts exceed 45 mph and expected to increase.		
Forward to Field Operations updated list of medical baseline customers and impacts access and functional needs population	No	No	Yes, if forecasted sustained wind or 3-second wind gusts expected to exceed 55 or actual sustained wind or 3-second wind gusts exceed 45 mph and expected to increase.		
Activate EOC	No	No	Yes, if forecasted sustained wind or 3-second wind gusts expected to exceed 55 or actual sustained wind or 3-second wind gusts exceed 45 mph and expected to increase.		
Prepare Bear Valley Power Plant for sustained operations.	No	No	Yes, if forecasted sustained wind or 3-second wind gusts expected to exceed 55 or actual sustained wind or 3-second wind gusts exceed 45 mph and expected to increase.		
Conduct switching operations to minimize impact of potential PSPS activity	No	No	Yes, if forecasted sustained wind or 3-second wind gusts expected to exceed 55 or actual sustained wind or 3-second wind gusts exceed 45 mph and expected to increase.		
Activate first responder, local government and agency, customer and community, and stakeholders PSPS communications plan	No	No	Yes, if forecasted sustained wind or 3-second wind gusts expected to exceed 55 or actual sustained wind or 3-second wind gusts exceed 45 mph and expected to increase.		
Activate Community Resource Centers	No	No	Yes, if forecasted sustained wind or 3-second wind gusts expected to exceed 55 or actual sustained wind or 3-second wind gusts exceed 45 mph and expected to increase.		
Public Safety Power Shutoff	No	No	Yes, if actual sustained wind or 3-second wind gusts exceed 55 mph.[6]		

[1] During the non-winter months, certain devices as developed by the Field Operations Supervisor and approved by the Utility Manager will remain in Manual (Non-Automatic) for the entire period regardless of the wildfire risk.
[2] During the non-winter months, when an Auto-Recloser, Switch, or Fuse TripSaver that was placed in "Manual" due to the above policy trips open, the affected portions of the de-energized circuit or feeder will be patrolled prior to re-energizing them. If the cause is likely known and the fire risk is "Green" or "Yellow," the Field Operations Supervisor may authorize the Line Crew to test the device once. If the device trips open again, the circuit or feeder must be thoroughly patrolled to determine the fault and ensure there is no risk to causing fire.
[3]No patrol is required. Re-test allowed following check of fault indicators, SCADA, other system indicators, and reports from the field. If the re-test fails, a patrol is mandatory.
[4] Normally only energized during winter period. If must be de-energized during winter period due to high risk conditions, and load is beyond the capability of the Lucerne supply lines plus the BVPP capacity, then reduce interruptible customer load as needed.
[5] May be energized if forecasted and actual sustained wind and wind gust conditions are less than 40 mph and the Radford Line is required to meet load demand or the support load due to loss of other power sources or due to planned maintenance when the benefits of the maintenance will overall reduce the risk of wildfire. In all of these cases, the Utility Manger will approve energizing the Radford Line and will inform the President.
[6]The Utility Manager may initiate PSPS if in his judgement the actual conditions in the field pose a significant safety risk to the public.

4.5. Public Safety Power Shutoff (PSPS) Activation Consideration. BVES determined that specific actions per Table 4-4 above should be taken when wind gusts of 3 seconds or more exceed 55 mph and a period of high fire threat danger

exists. These conditions are often referred to as “extreme fire threat weather and conditions.”

4.5.1. Despite having a proactive and aggressive vegetation management program, vegetation may still contact power lines; for example, in high winds, branches outside the vegetation clearance zone may break and be blown onto bare conductors and/or trees outside the clearance zone may fall into bare conductors. The specific strength of trees and branches is unknown; therefore, in high winds, it is impossible to predict how every tree and branch in the service territory would be impacted. This condition plays a key role how BVES has selected its tripwire 3-second wind gust speed for PSPS and designated certain locations as “at risk” locations for proactive de-energization during extreme fire weather conditions.

4.5.2. Changes in vegetation density, circuit improvements such as covering bare wire, or other environmental factors may drive BVES to re-evaluate the designated “at risk” line sections in its system and, therefore, specific line sections may be added, removed or modified to the “at risk” list as appropriate in the future.

4.5.3. Because BVES is not able to determine the strength or health of vegetation surrounding bare conductors outside of the required vegetation clearance zones as well as other structures that may come loose and impact BVES distribution facilities. Therefore, BVES may determine a need to proactively de-energize facilities during high fire threat and high wind conditions. This would be done in close consult and coordination with local government and agencies.

4.5.4. In determining whether to invoke PSPS, BVES staff considers factors driving “extreme fire weather” and dangerous threat conditions exist including, but not limited to, the following:

- Design, strength, and other characteristics of distribution overhead facilities.
- Vegetation density.
- NFDRS 7-day fire threat outlook.
- High winds.
- Low humidity.
- National Weather Service advisories.
- Local weather forecasts and advisories.
- BVES meteorologist’s forecast.
- Observed conditions.
- Information from BVES installed weather stations.
- Real-time information from trained personnel positioned in high-risk areas.
- Input from state and local authorities and Emergency Management Personnel.
- Fire threat to electric infrastructure
- Public Safety Risk

"Extreme fire weather conditions" are deemed to be forecasted or exist when the National Fire Danger Rating System forecast is "red," "orange," or "brown" for area SC-10, high winds (45 mph or greater) are forecasted or measured, and the BVES meteorologist forecasts high fire threat conditions.

If "extreme fire weather conditions" are forecasted or exist, BVES Staff will implement BVES Public Safety Power Shutoff Procedures at the direction of the Utility Manager.

4.5.5 BVES has identified seven sections of "at risk" areas based on the type of distribution facilities (overhead bare conductions, high voltage, etc.), tree and vegetation density, available dry fuel, and other factors. These "at risk" areas are identified on the map in Appendix A. These areas may be selectively de-energized by "opening" the ARs designated in Table 4-5, Switches to De-energize "At Risk" Areas, below.

Table 4-5: Switches to De-energize "At Risk" Areas

Circuit (AR To Be Opened)	Number of Customers
Radford 34kV	0[1]
North Shore 4kV (Open AR) 805)	1021
Erwin 4 kV (Open AR 1128)	197
Boulder 4kV (Open AR 105)	1063
Lagonita 4kV (Open AR 145)	946
Club View 4kV (Open AR 424)	740
Goldmine 4kV (Open AR 405)	950

[1]Load is shifted to Shay 34kV line.

BVES expects that if a PSPS is necessary, it should be limited to one or more of these "high risk" areas. However, the Operations Team must monitor the entire service area and invoke PSPS as a measure of last resort on any BVES circuit when condition warrant such action.

4.6. Restoration from PSPS. When wind speeds in the affected area where PSPS was invoked calm below 50 mph for a minimum period of 20 minutes, crews may assess if the fire weather conditions have subsided to "safe levels" to begin the restoration of de-energized circuits. However, the crews may extend the calm period beyond 20 minutes, if they determine further gusts of greater than 50 mph are likely based on their direct observation of local conditions or forecasts indicate a high probability of winds picking up to greater than 50 mph. Crews should communicate with the Field Operations Supervisor prior to assessing the situation as "safe levels" so that an evaluation of actual conditions in the field may be merged with the latest forecasted information. Restoration activities include:

- Validating that the extreme fire weather conditions have subsided to safe levels.
- Conducting field inspections and patrols of facilities that were de-energized.

- Repair of any identified immediate hazards (Level 1 inspection conditions)
- Re-energization of inspected circuits.

5. BVES PSPS Procedures

5.1. Emergency Disaster and Response Plan. Section 4 to the BVES Emergency Response and Disaster Plan (EDRP) explains the BVES system sources of power and actions to be taken when there is partial or complete loss of sources of power. Appendix B to the EDRP provides a graphic showing the sources of power available to the BVES system including the SCE supply lines and their capacity. This PSPS Plan provides supplemental guidance in the case of an SCE PSPS event leading to a complete or partial loss of all SCE lines in order to avoid a "black start" of the Bear Valley Power Plant (BVPP). Once PSPS is implemented, outages shall be managed using the guidance of the BVES EDRP and the supplemental guidance of this procedure.

5.2. PSPS Phases. In ***Table 5-1, PSPS Phases for PSPS Procedures***, BVES provides a time-line summary of actions to be taken for PSPS on BVES-owned bare wire overhead power lines affecting some or all of the BVES service area or a SCE-directed PSPS affecting the BVES service area.

It should be noted that weather changes can be sudden and the target timelines may end up being shorter than indicated in Table 5-1. PSPS actions are driven by forecasts and actual conditions in the field. The specific phases are:

- **1. Preparatory Phase:** Conducted annually well before extreme fire threat conditions are expected; or when lessons learned or other conditions warrant updating plans, training, or outreach. This involves the developing of communication and notification plans jointly with stakeholders such as CalOES, county and local governments, independent living centers, and representatives of people/communities with AFN. Review and revise plans for establishing CRC(s). BVES currently holds PSPS exercises to further develop their staff to be readily available to properly activate a PSPS event. For further detail regarding BVES Functional Exercise: Bear Valley Wildfire Threat Situation Manual in Appendix F.
- **2. Warning Phase:** Approximately 4-7 days prior to forecasted extreme fire threat weather and conditions, the warning phase involves assessing the whether activating a PSPS may be warranted. If a PSPS is possible or likely, BVES notifies local government, agencies, partner organizations, and customers. This phase includes various levels of notification at the 4-7 days ahead, 4 days ahead, 2-3 days ahead, 1-2 days ahead, and 1-4 hours ahead (PSPS imminent) points in the preparatory process.
- **3. Implementation Phase:** De-energization actions are taken for "at-risk" areas due to observed extreme fire threat weather and conditions or imminent or active SCE-directed PSPS of SCE supply lines to BVES service area.
- **4. Restoration Phase:** This phase enables the safe restoration of power to de-energized circuits following verification that actual extreme fire threat weather and

conditions have subsided and/or restoring SCE supply lines when they are re-energized. All de-energized lines must be patrol-inspected for vegetation and equipment hazards and all Level 1 conditions must be remediated before restoring power.

- **5. Reporting and Lessons Learned Phase:** Documenting and reporting to Safety Enforcement Division required information on the PSPS event and capturing lessons learned to ensure future PSPS events benefit from an understanding of what worked and what did not work in previous PSPS events.

5.3. PSPS Exercises. BVES conducts at least one tabletop and one functional simulation exercise annually. These exercises involve participating stakeholders from the Big Bear community and be coordinated with CPUC Cal Fire, Cal OES, communication providers, AFN representatives, and other public safety partners. Additionally, BVES will coordinate with these stakeholders to develop and plan the exercises. The exercises seek to prepare BVES and its community partners for a PSPS and enhance their performance, communication protocols, notification practices, and restoration procedures and test the functionality of the plan to the extent practicable.

BVES will keep detailed records of these plans and submit reports of these exercises to the CPUC as required. BVES will review the exercises to identify strengths and weaknesses of BVES actions, and seek to incorporate lessons learned into this Plan and other associated documentation, as appropriate.

Table 5-1: PSPS Phases for PSPS Procedures

Phase	Timeframe	Internal Staff Actions	External Communications and Notifications
Preparatory	**Pre-fire season.** • Conducted annually well before extreme fire threat conditions are expected; or • When lessons learned or other conditions warrant updating plans, training, and/or outreach.	**Planning and Training** • Managers review and update plans and procedures. • Managers ensure staff are trained on PSPS procedures as applicable. • Reach out to media and community-based organizations to ensure consistent awareness of and availability to third-parties of all messaging and map data, including application programming interfaces that are used for de-energizations events. • Customer Service Department will ensure all equipment and supplies for the CRC are functional and readily available. • Coordinate with stakeholders including CPUC, CalFire, CalOES, communications providers, representatives of people/communities with access and functional needs, and other public safety partners to plan de-energization simulation exercises throughout the utility service territories in the areas with the highest historical and forecasted risk for de-energization in advance of fire season.	**Local Government, Agencies, and Partner Organizations:** • Provide copy of plan and solicit comments. • Incorporate comments as deemed appropriate. • Conduct meetings to discuss procedures. • Update primary and secondary contacts for PSPS communications. • Advisory Board: May consist of public safety partners, communications and water service providers, local and tribal government officials, business groups, non-profits, representatives of people/communities with access and functional needs and vulnerable communities, and academic organizations. **Customer Outreach and Education:** • Post PSPS information and list of PSPS POCs on BVES's website and social media. • Include PSPS information in periodic customer newsletter. • Conduct public workshops. • Provide PSPS notifications via email, telephone calls, Interactive Voice Response (IVR) proactive calling system, and two-way text messaging.
Warning	**4-7 Days Ahead** When forecasts indicate extreme fire threat weather and conditions may occur	**Operations & Planning:** • Evaluate system for possible impact area(s) and ensure resources ready to support PSPS. • Contact SCE Staff and closely follow status of SCE supply lines (Doble, Cushenberry, and Bear Valley/Radford). • Review operational and maintenance status of sub-transmission system. • Review operational and maintenance status of Bear Valley Power Plant (BVPP). • Review operational and maintenance status of Radford Line. • Consider conducting patrol of Radford Line. • Review National Weather Service (NWS) forecasts, National Fire Danger Rating System (NFDRS) 7-day forecast, and weather and threat assessments from contracted meteorology consultant. • Notify meteorology consultant to provide more frequent forecasts. • Alert customer service to possibility of PSPS. **Customer Service:**	**None**

		• Review and edit as applicable templates for PSPS events and the anticipated impacts on BVES Customers. • Staff drafts notices to Public Affairs consultant for review, significant changes to templates are made. • Create warning notifications to customers via email, telephone calls, IVR proactive calling system, and two-way text messaging.	
Warning	**4 Days Ahead** If continuing and consistent forecasts of extreme fire threat weather and conditions	**Operations & Planning:** • Closely monitor fire weather alerts from various sources with the goal of refining the forecast (NWS, NFDRS, and meteorology consultant weather and threat assessments). • Continue contacts with SCE Staff and closely follow status of SCE supply lines. If any SCE lines are under "PSPS Consideration," take actions per Table 4-2, BVES Action for SCE Lines Under PSPS Consideration. • Ensure sub-transmission system is in most reliable condition. Defer or secure from planned maintenance. • Ensure BVPP ready to operate. Defer or secure from planned maintenance. • Alert Energy Resource Department of possible extended BVPP operations. • Consider energizing Radford Line, if deemed necessary for reliability. • Closely coordinate with SCE Staff regarding the PSPS status of SCE supply lines. • Ensure BVES installed weather stations fully operational. • Ensure circuit load monitoring equipment fully operational. • Place BVES staff incident responders on alert. **Customer Service:** • Finalize **"4 Day Alert"** email regarding continuing and consistent forecasted extreme fire threat weather and conditions, which may lead to possible BVES directed PSPS and/or SCE directed PSPS. - provide anticipated impacts on BVES Customers and direction of event. - Obtain President's approval to release. • Issue a press release to local media (newspaper and radio) and post notification on website. • Create warning notifications to customers via email, telephone calls, (IVR) proactive calling system, and two-way text messaging.	**Local Government, Agencies, and Partner Organizations:** • Email **"4 Day Alert"** to local government, agencies, and partner organizations primary and secondary points of contact. • Alert the emergency management community, first responders and local government first.

Warning	**2-3 Days Ahead** Extreme fire threat weather and conditions forecasted with increasing confidence	**Operations & Planning:** • Continue to closely monitor fire weather alerts. • Prepare staff rotation plans to support continuous field crew operations, BVPP operations, dispatch, and customer service. • Evaluate need for additional resources from mutual aid agreements (CUEA and MMAA) and contracted services. Alert additional resources points of contact. • Set up processes to frequently monitor BVES installed weather stations. • Review pre-approved field Switching Orders against current system line-up and make changes as applicable with Field Operations Supervisor's approval. • Keep Customer Service informed of latest forecast to ensure accurate communications with stakeholders. • Closely coordinate with SCE Staff regarding SCE supply lines to the BVES service area and take actions per Table 4-2, BVES Action for SCE Lines Under PSPS Watch, as applicable. **Customer Service:** • Finalize **"2-3-Day Notice"** regarding forecasted extreme fire threat weather and conditions, about possible BVES directed PSPS and/or SCE directed PSPS. - Provide anticipated impacts on BVES Customers and direction of event. - Obtain President's approval to release. • Issue a press release to local media (newspaper and radio) and post notification on website. • Create warning notifications to customers via email, telephone calls, (IVR) proactive calling system, and two-way text messaging.	**Local Government, Agencies, and Partner Organizations:** • Email **"2-3 Day Notice"** to local government, agencies, and partner organizations primary and secondary points of contact. • Coordinate with the emergency management community, first responders and local government first. • Encourage widest dissemination of this information. **Customer Outreach:** • Post **"2-3 Day Notice"** on BVES website and social media. • Issue **"2-3 Day Notice"** press release for local media. • Send out **"2-3 Day Notice"** via IVR. • Send out **"2-3 Day Notice**" via Text • Send out **"2-3 day Notice"** via Email
Warning	**1-2 Days Ahead** Extreme fire threat weather and conditions forecasted with high degree of confidence	**Operations & Planning:** • Continue to closely monitor fire weather alerts and observed conditions from various sources with the goal of refining the forecast. • If needed, request additional resources from mutual aid agreements (CUEA and MMAA) and contracted services). • Keep Customer Service informed of latest forecast to ensure accurate communications with stakeholders. o Set up CRC and conduct a mock SOE scenario to include testing of all equipment and needed supplies.	**Local Government, Agencies, and Partner Organizations:** • Email **"1-2 Day Notice"** to local government, agencies, and partner organizations primary and secondary points of contact. • Coordinate with the emergency management community, first responders and local government first. • Encourage widest dissemination of this information. **Customer Outreach:** • Post **"1-2 Day Notice"** on BVES website and social media. • Issue **"1-2 Day Notice"** press release for local media.

		○ Purchase non-perishable food items to provide to our customers including bottled water. • Continue to closely coordinate with SCE Staff regarding SCE supply lines to the BVES service area and take actions per Table 4-2, BVES Action for SCE Lines Under PSPS Watch, as applicable. • When directed by the Utility Manager: ○ Staff incident responders called in. ○ Incident dispatch established. ○ Field Crews dispatched to monitor various actual field conditions for extreme fire weather and other dangerous conditions throughout the service area and "at risk" areas. ○ Implement BVES EDRP including staffing the EOC as applicable. **Customer Service:** • Finalize **"1-2 Day Notice"** regarding imminent extreme fire threat weather and conditions, which may result in BVES directed PSPS and/or SCE directed PSPS. - Provide anticipated impacts on BVES Customers and duration of event. - Obtain President's approval to release. • Identify medical baseline and AFN customers that may lose power as result of PSPS. • Issue a press release to local media (newspaper and radio) and post notification on website. • Issue warning notifications to customers via email, telephone calls, (IVR) proactive calling system, and two-way text messaging	• Send out **"1-2 Day Notice"** via IVR. • Send out "1-2 Day Notice" via Text • Activate "1-2 day Notice" via Email
Warning	**1-4 Hours Ahead When De-Energization Imminent.** Extreme fire threat weather and conditions validated by field resources	**Operations & Planning:** • Closely coordinate with SCE regarding SCE-directed PSPS affecting SCE supply lines into BVES service area and take applicable actions per Table 4-3, BVES Action for SCE Lines De-energized Due to PSPS. • Frequently monitor BVES installed weather stations. • Patrol throughout service area especially "at risk" areas to monitor various actual field conditions for extreme fire weather and other dangerous conditions. • Monitor local wind gusts in "at-risk" areas. **Customer Service:**	**Local Government, Agencies, and Partner Organizations:** • Email **"De-energization Imminent Notice"** to local government, agencies, and partner organizations. • Coordinate with the emergency management community, first responders, and local government in managing outages due to PSPS. • Provide list of customers that may be without power and listed as medical baseline customers to Sheriff Department and Fire Department. **Customer Outreach:**

		• Finalize "**De-energization Imminent Notice"** regarding imminent PSPS de-energization(s) directed by BVES or SCE - Include areas to be de-energized, number of customers without power, and best estimated time to restore (ETR). - Obtain President's approval to release. • Identify medical baseline customers that may lose power. • Identify AFN customers that may lose power as result of PSPS • Issue a press release to local media and post notification on website. • Issue warning notifications to customers via email, telephone calls, (IVR) proactive calling system, and two-way text messaging.	• Post "**De-energization Imminent Notice"** on BVES website and social media. • Issue "**De-energization Imminent Notice"** press releases for local media. • Send "**De-energization Imminent Notice"** via IVR. • Send "**De-energization Imminent Notice** Day Notice" via Text • Send "**De-energization Imminent Notice**" via Email
Implementation	**During de-energization event.** A PSPS event is initiated.	**Operations & Planning:** • Closely coordinate with SCE regarding SCE-directed PSPS affecting SCE supply lines into BVES service area and take applicable actions per Table 4-3, BVES Action for SCE Lines De-energized Due to PSPS. • Frequently monitor BVES installed weather stations. • Patrol throughout service area especially "at risk" areas to monitor field conditions for extreme fire weather and dangerous conditions. • Monitor local wind gusts. • De-energize circuits in "at risk" areas as wind gusts reach threshold for de-energization as designated by Field Operations Supervisor. • Field Crews may de-energize additional power lines they evaluate as posing a public safety hazard or as directed by Field Operations Supervisor. • Prepare GO-166 major outage and ESRB-8 notifications as applicable. **Customer Service:** • Finalize "**De-energization Notice"** regarding extreme fire threat conditions and actual PSPS de-energization(s) directed by BVES and/or SCE. Must include: - areas de-energized, - number of customers without power, and best estimated time to restore (ETR). Obtain President's approval to release. • Issue **"De-energization Updates"** providing status changes such as when the number of customers without	**Local Government, Agencies, and Partner Organizations:** • Email **"De-energization Notice"** to local government, agencies, and partner organizations. • Coordinate with the emergency management community, first responders, and local government in managing outages due to PSPS. • Send **"De-energization Updates"** on the PSPS. • Provide list of customers without power and listed as medical baseline and AFN customers to Sheriff Department and Fire Department. • Encourage widest dissemination of this information. • Notify California Public Utilities Commission (CPUC) and Warning Center at the Office of Emergency Services San Bernardino within one hour of shutting off the power if the outage meets the major outage criteria of GO-166. • Notify President Safety Enforcement Division (SED), CPUC within twelve hours of the power being Shutoff per ESRB-8. **Customer Outreach:** • Post "**De-energization Notice"** and "**De-energization Updates"** (when warranted) on BVES website and social media. • Issue "**De-energization Notice"** and "**De-energization Updates"** (when warranted) press releases for local media. • Send "**De-energization Notice"** and "**De-energization Updates"** (when warranted) via IVR. • Send "De-energization Notice" and "**De-energization Updates"** (when warranted) via Text

		power or ETR(s) change significantly. Obtain President's approval to release. • Identify lists of medical baseline customers without power. • Issue a press release to local media (newspaper and radio) and post notification on website. • Issue warning notifications to customers via email, telephone calls, (IVR) proactive calling system, and two-way text messaging.	• Activate "De-energization Notice" and "**De-energization Updates"** (when warranted) via Email • Communicate with emergency services regarding AFN and medical baseline customers.
Restoration	**Re-energization** Extreme fire conditions subside to safe levels as validated by field conditions	**Operations & Planning:** • Validate extreme fire weather conditions have subsided to safe levels as designated by the Field Operations Supervisor and report these conditions to Dispatch. • Conduct and patrols of de-energized facilities. • Restore power to affected circuits following satisfactory completion of field inspections and patrols. • Conduct switching operations as directed by Field Operations Supervisor to restore systems normal as SCE restores supply lines, as applicable. **Customer Service:** • Finalize **"Intent to Restore"** notice to include ETRs and obtain President's approval to release. • Finalize **"Restoration Complete"** notice to be issued when power is fully restored and obtain President's approval to release. • Breakdown of CRC including removal/storage of all equipment and supplies.	**Local Government, Agencies, and Partner Organizations:** • Send **"Intent to Restore"** notice to local government, agencies, and partner organizations. Encourage widest dissemination of this information. • Coordinate with the emergency management community, first responders, and local government in managing restorations. • Send **"Restoration Complete"** notice to local government, agencies, and partner organizations once power is fully restored or an update if restoration is delayed. **Customer Outreach:** • Post **"Intent to Restore"** notice on BVES website and social media. • Issue **"Intent to Restore"** press release for local media. • Send **"Intent to Restore"** notice via IVR. • Send **"Intent to Restore"** notice via Text • Send **"Intent to Restore"** notice via Email • Post **"Restoration Complete"** notice on BVES website and social media once power is fully restored or an update if restoration is delayed. • Issue **"Restoration Complete"** press release for local media once power is fully restored or an update if restoration is delayed. • Send **"Restoration Complete"** notice via IVR once power is fully restored or an update if restoration is delayed. • Send **"Restoration Complete"** notice via Text once power is fully restored or an update if restoration is delayed. • Send **"Restoration Complete"** notice via Email once power is fully restored or an update if restoration is delayed.
Reporting and Lessons Learned	**Post Event**	**Operations & Planning:** • Conduct lessons learned with applicable staff. Utility Manager will include Customer Service and solicit input	**CPUC Safety Enforcement Division:** • File a report (written) to President of SED no later than 10 business days after the Shutoff event ends per ESRB-8.

		from Local Government, Agencies, and Partner Organizations. • Update plan and procedures per the lessons learned, if necessary. • Prepare PSPS Post Event Report required by ESRB-8 and forward to President and Manager Regulatory Affairs for approval.	

5.4. SCE-Directed PSPS Procedures. Close coordination with SCE is essential to mitigating the impact of any SCE directed PSPS event that would result in a complete or partial loss of SCE supply lines. The following preparatory coordination steps are established:

- Each year, before fire season, BVES Management Team engages SCE Management on coordination for potential and actual PSPS events.
- BVES Management Team updates contact information with the SCE Key Account Manager for the BVES account, upon any change.
- BVES Field Operations staff updates contact information with the SCE Lugo and Colton Control Stations which have direct operational control over the SCE supply lines to BVES.

When PSPS events are forecasted, the SCE Key Account Manager will coordinate with BVES Management and the SCE Lugo and Colton Control Stations will coordinate directly with the designated BVES Field Operations Team, until the event is complete or canceled.

Table 5-2, BVES Action for SCE Lines Under PSPS Consideration, provides procedures to implement to best prepare the BVES system for a complete or partial loss of SCE supply lines.

Table 5-2: BVES Action for SCE Lines Under PSPS Consideration

Condition	BVES Action
SCE places Doble or Cushenberry Line under PSPS Consideration.	1. Notify key internal staff and brief Field Operations staff on condition for situational awareness. 2. Operations & Planning Manager evaluates energizing Radford Line for improved reliability.
SCE places Bear Valley Line under PSPS Consideration.	1. Notify key internal staff and brief Field Operations staff on conditions for situational awareness. 2. If Radford is energized, shift loads to Shay Line.
SCE places Doble **and** Cushenberry Lines under PSPS Consideration.	1. Notify key internal staff and brief Field Operations staff on condition for situational awareness. 2. Energize the Radford Line. 3. Prepare for potentially losing all SCE supply lines from Lucerne. 4. Prepare for sustained BVPP operations and rolling blackouts. 5. Evaluate distribution circuit loads.
SCE places Doble or Cushenberry, and Bear Valley Lines under PSPS Consideration	1. Notify key internal staff and brief Field Operations staff on condition for situational awareness. 2. Prepare for potentially losing all SCE supply lines from Lucerne. 3. Prepare for sustained BVPP operations and rolling blackouts. 4. Evaluate distribution circuit loads.
SCE places Doble, Cushenberry, and Bear Valley Lines under PSPS Consideration	1. Notify key internal staff and brief Field Operations staff on condition for situational awareness. 2. Prepare for potentially losing all SCE supply lines into BVES service area. 3. Prepare for sustained BVPP operations and rolling blackouts. 4. Evaluate distribution circuit loads.

Table 5-3, BVES Action for SCE Lines De-energized Due to PSPS, provides procedures to use in the event of a partial or complete loss of SCE supply lines. These procedures are based on procedures in the BVES EDRP and take into account that BVES will closely coordinate with SCE Staff as follows:

- SCE should provide warnings of impending PSPS on the SCE lines about 2 days prior to the event.
- SCE should provide updates to the status of the lines under PSPS consideration.
- SCE should notify BVES at least 4 hours prior to de-energizing any SCE supply lines to BVES service area.

These timely notifications will allow BVES to take preparatory action to shed load to within the expected capacity of its remaining sources of power and allow BVES to avoid a “blackstart” on the BVPP. Therefore, the procedures of Table 5-3 should be followed during PSPS event. However, if there is a sudden complete or partial loss of SCE supply lines, the procedures in Section 4 of the BVES EDRP are more appropriate and should be followed as directed by the Utility Manager.

Table 5-3: BVES Action for SCE Lines De-energized Due to PSPS

Condition	BVES Action
SCE De-energizes Doble or Cushenberry Line for PSPS.	1. Notify key staff and brief Field Operations staff on condition for situational awareness. 2. Energize Radford Line if needed to meet load demand and reliability. 3. Startup the BVPP as needed to meet load demand. 4. No reduction on load necessary, since the Doble and Cushenberry are capable of carrying the other's load. 5. Implement BVES EDRPn for a partial loss of SCE supply lines.
SCE De-energizes Bear Valley Line for PSPS.	1. Notify key staff and brief Field Operations staff on condition for situational awareness. 2. If Radford is energized, shift loads to Shay Line prior to de-energizing for PSPS. This should be done about 4 hours prior to the SCE de-energizing the line. 3. If needed, start up the BVPP to meet load demand. 4. If needed, instruct interruptible customers (Bear Mountain Resorts) to reduce load as needed to meet load demand. 5. Implement BVES EDRP for a partial loss of SCE supply lines.
SCE De-energizes Doble or Cushenberry **and** Bear Valley Lines for PSPS.	1. Notify key staff and brief Field Operations staff on condition for situational awareness. 2. Since the Doble and Cushenberry are capable of carrying the other's load, follow the procedure for "SCE De-energizes Bear Valley Line for PSPS" above. 3. Prepare for potentially losing all SCE supply lines into BVES service area. 4. Prepare for sustained BVPP operations and rolling blackouts. 5. Evaluate distribution circuit loads. 6. Implement BVES EDRP for a partial loss of SCE supply lines.
SCE De-energizes Doble **and** Cushenberry Lines for PSPS.	1. Notify key staff and brief Field Operations staff on condition for situational awareness. 2. Energize the Radford Line. 3. Four hours prior to SCE de-energizing the lines, per the Field Operations Supervisor's direction, shift as much of the load to the BVPP and Radford Line as follows: a. Open the Shay and Baldwin ARs. b. "Express" the Radford Line to Meadow Substation without overloading the Radford Line per Field Operations' switching order. c. Start BVPP, place enginators on-line and increase load to within the combined capacity of the BVPP and Radford Line. d. Implement BVES EDRP for sustained loss of SCE supplies from Lucerne including "rolling blackout" procedures. 4. Prepare for sustained BVPP operations and rolling blackouts. 5. Frequently monitor distribution circuit loads.

Table 5-3: BVES Action for SCE Lines De-energized Due to PSPS

Condition	BVES Action
SCE de-energizes Doble, Cushenberry, **and** Bear Valley Lines for PSPS.	1. Notify key staff and brief Field Operations staff on condition for situational awareness. 2. If the Radford Line is energized, shift loads to the Shay Line. 3. Four hours prior to SCE de-energizing the lines, per the Field Operations Supervisor's direction, perform the following: a. Start up all BVPP enginators. b. Reduce system load to within the capacity of the BVPP by isolating distribution circuits as directed by the Field Operations Supervisor. c. Once system load is matched with the BVPP capacity, open the Shay and Baldwin ARs. d. Implement BVES EDRP for sustained loss of all SCE supply lines including "rolling blackout" procedures.

6. PSPS Public Outreach and Communications

6.1. Importance of Public Outreach. Due to the significant impact a PSPS event may have on the community and customers, early and accurate communications must be conducted throughout the PSPS event in coordination with local government, agencies, partner organizations (including emergency management community and first responders, CALOES, local governments, independent living centers, and representatives of people/communities with AFN), and customers. Effective communications are key to allow stakeholders to take preparatory actions to mitigate the impact of a PSPS event. It is also understood the importance of hosting community workshops to allow for community members to understand the process leading to a PSPS event. BVES hosts exercises and workshops with community to better prepare customers for a PSPS event. BVES also conducts public safety briefings with the CPUC related to de-energization events, including exercises.

BVES retains ultimate responsibility for notification and communication throughout a PSPS event.

6.2. EDRP Communications Procedures. During the time period leading up to the PSPS event, during a PSPS event, and during the restoration period from a PSPS event, the Emergency Response Communications Plan of the EDRP shall be implemented as applicable in conjunction with this plan.

To accomplish this, the BVES shall:

- Develop and use a common nomenclature that integrates with existing state and local emergency response communication messaging and outreach and is aligned with the California Alert and Warning Guidelines.
- Develop multimodal notification and communication protocols and systems to reach customers no matter where the customer is located and deliver messaging in a clear and understandable manner.
- Communicate to customers in different languages and in a way that addresses different access and functional needs using multiple modes/channels of communication.
- Establish a Community Resource Center and work with local organizations to promote community safety (see Appendix C Community Resource Center Protocol).

6.3. PSPS Planned Communications. Table 6-1, BVES PSPS Communications Template Listing, is to be prepared by the Customer Program Specialist and preapproved by the President ahead of an expected PSPS event such to allow BVES staff to quickly initiate effective communications with stakeholders during a PSPS event. The templates are designed to provide a standard “fill in the blank” notice that may be amended depending on the specific situation as applicable. Templates shall initially be reviewed and edited as applicable by BVES’s public relations contractor. Additionally, the templates shall be reviewed annually and/or when lessons learned indicate changes to the templates are appropriate.

Table 6-1: BVES PSPS Communications Template Listing

Template	Content	Media	Recipients
4-Day Alert	Provides notice of continuing and consistent forecasted extreme fire threat weather and conditions, which may lead to possible BVES-directed or SCE-directed PSPS. Also, provides anticipated impacts on BVES customers and direction of event.	• Email	• Local Government, Agencies, and Partner Organizations (Includes emergency management community and first responders, CALOES, county and local governments, independent living centers, and representatives of people/communities with access and function needs), and customers (including medical baseline and behind-the-meter).
2-3 Day Notice	Provides notice of forecasted extreme fire threat weather and conditions, which may lead to BVES-directed or SCE-directed PSPS. Provides anticipated impacts on BVES customers and duration of event.	• Email • BVES Website • Social Media • Press Release • IVR Message • Text Message	• Local Government, Agencies, and Partner Organizations (Includes emergency management community and first responders, CALOES, county and local governments, independent living centers, and representatives of people/communities with access and function needs) and customers (including medical baseline and behind-the-meter).
1-2 Day Notice	Provides notice regarding imminent extreme fire threat weather and conditions, which may result in BVES-directed or SCE-directed PSPS. Also, provides anticipated impacts on BVES Customers and duration of event.	• Email • BVES Website • Social Media • Press Release • IVR Message • Text Message	• Local Government, Agencies, and Partner Organizations (Includes emergency management community and first responders, CALOES, county and local governments, independent living centers, and representatives of people/communities with access and function needs) and customers (including medical baseline and behind-the-meter).

Table 6-1: BVES PSPS Communications Template Listing

Template	Content	Media	Recipients
De-energization Imminent Notice	Provides notice that BVES-directed or SCE-directed PSPS is imminent (within 1-4 hours) based on extreme fire threat weather and conditions. Also, provides anticipated impacts on BVES customers and duration of event.	• Email • BVES Website • Social Media • Press Release • IVR Message • Text Message	• Local Government, Agencies, and Partner Organizations (Includes emergency management community and first responders, CALOES, county and local governments, independent living centers, and representatives of people/communities with access and function needs) and customers (including medical baseline and behind-the-meter).
De-energization Notice	Provides notice of extreme fire threat weather and conditions and PSPS de-energization(s) and includes areas de-energized, number of customers without power, and best estimated time to restore (ETR).	• Email • BVES Website • Social Media • Press Release • IVR Message • Text Message	• Local Government, Agencies, and Partner Organizations (Includes emergency management community and first responders, CALOES, county and local governments, independent living centers, and representatives of people/communities with access and function needs) and customers (including medical baseline and behind-the-meter).
De-energization Updates	During de-energization event, provides notice of changes such as when the number of customers without power or ETR changes significantly.	• Email • BVES Website • Social Media • Press Release • IVR Message • Text Message	• Local Government, Agencies, and Partner Organizations (Includes emergency management community and first responders, CALOES, county and local governments, independent living centers, and representatives of people/communities with access and function needs) and customers (including medical baseline and behind-the-meter).

Table 6-1: BVES PSPS Communications Template Listing

Template	Content	Media	Recipients
Intent to Restore	Provides notice that extreme fire threat weather and conditions have subsided, BVES crews are performing post-PSPS restoration inspections, and ETR.	• Email • BVES Website • Social Media • Press Release • IVR Message • Text Message	• Local Government, Agencies, and Partner Organizations (Includes emergency management community and first responders, CALOES, county and local governments, independent living centers, and representatives of people/communities with access and function needs) and customers (including medical baseline and behind-the-meter).
Restoration Complete	Provides notice that power is fully restored.	• Email • BVES Website • Social Media • Press Release • IVR Message • Text Message	• Local Government, Agencies, and Partner Organizations (Includes emergency management community and first responders, CALOES, county and local governments, independent living centers, and representatives of people/communities with access and function needs) and customers (including medical baseline and behind-the-meter).

6.4. Critical Facilities and Infrastructure. The term 'critical facilities' and 'critical infrastructure' refers to facilities and infrastructure essential to the public safety and that require additional consideration for resiliency during PSPS events. The following provides guidance on what constitutes critical facilities and infrastructure:

6.4.1. Emergency Services Sector
- Police Stations
- Fire Stations
- Emergency Operations Centers

6.4.2. Government Facilities Sector
- Schools
- Jails and prisons

6.4.3. Healthcare and Public Health Sector
- Public Health Departments
- Medical facilities, including hospitals, skilled nursing facilities, nursing homes, blood banks, health care facilities, dialysis centers and hospice facilities

6.4.4. Energy Sector: Public and private utility facilities vital to maintaining or restoring normal service, including, but not limited to, interconnected publicly-owned utilities.

6.4.5. Water and Wastewater Systems Sector: Facilities associated with the provision of drinking water or processing of wastewater including facilities used to pump, divert, transport, store, treat and deliver water or wastewater.

6.4.6. Communications Sector: Communication carrier infrastructure including selective routers, central offices, head ends, cellular switches, remote terminals and cellular sites.

6.4.7. Chemical Sector: Facilities associated with the provision of manufacturing, maintaining, or distributing hazardous materials and chemicals.

6.5. Key Partners. The follow provides the list of pertinent Local Government, Agencies, and Partner Organizations to BVES PSPS notifications. This list overlaps with the list of what is considered critical facilities and infrastructure:

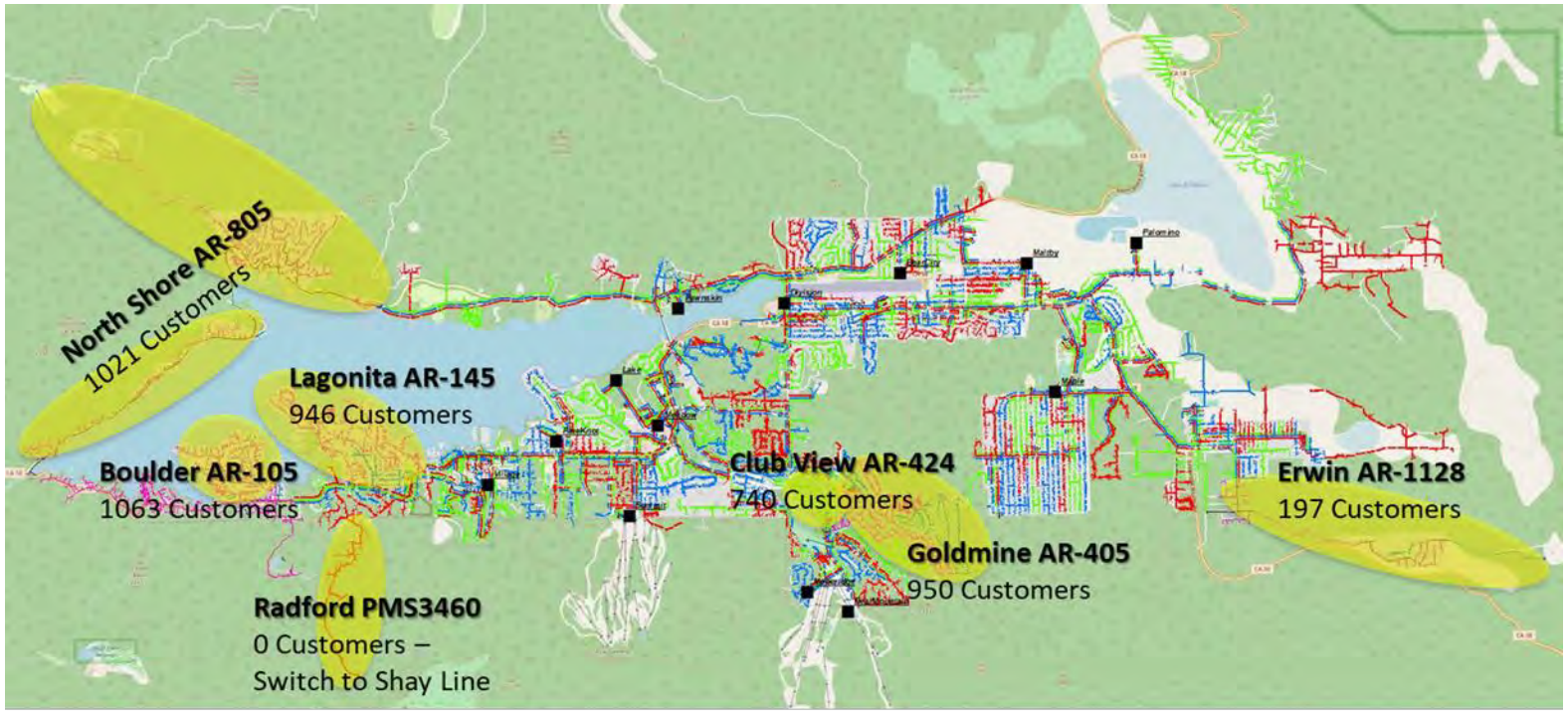
- Local officials (City of Big Bear Lake and San Bernardino County)
- State officials (normally CPUC Energy Division and Safety Enforcement Division)
- San Bernardino County Office of Emergency Services (County OES)
- Big Bear Fire Department
- California Department of Forestry and Fire Protection (CAL FIRE)
- U.S. Forest Service
- San Bernardino County Sheriff's Department Big Bear Lake Patrol Station
- California Highway Patrol (CHP) Arrowhead Area
- California Department of Transportation (Caltrans)
- Big Bear Area Regional Wastewater Agency (BBARWA)
- Big Bear City Community Services District (CSD)
- Big Bear Lake Water Department (DWP)
- Big Bear Municipal Water District (MWD)
- Southwest Gas Corporation
- Bear Valley Community Hospital
- Bear Valley Unified School District
- Big Bear Chamber of Commerce
- Big Bear Airport District
- Big Bear Mountain Resorts
- Spectrum Communications
- Cell tower providers

Critical Facilities and Infrastructure Plan**.** For further detail regarding BVES' Critical Facilities and Infrastructure Plan processes and procedures.

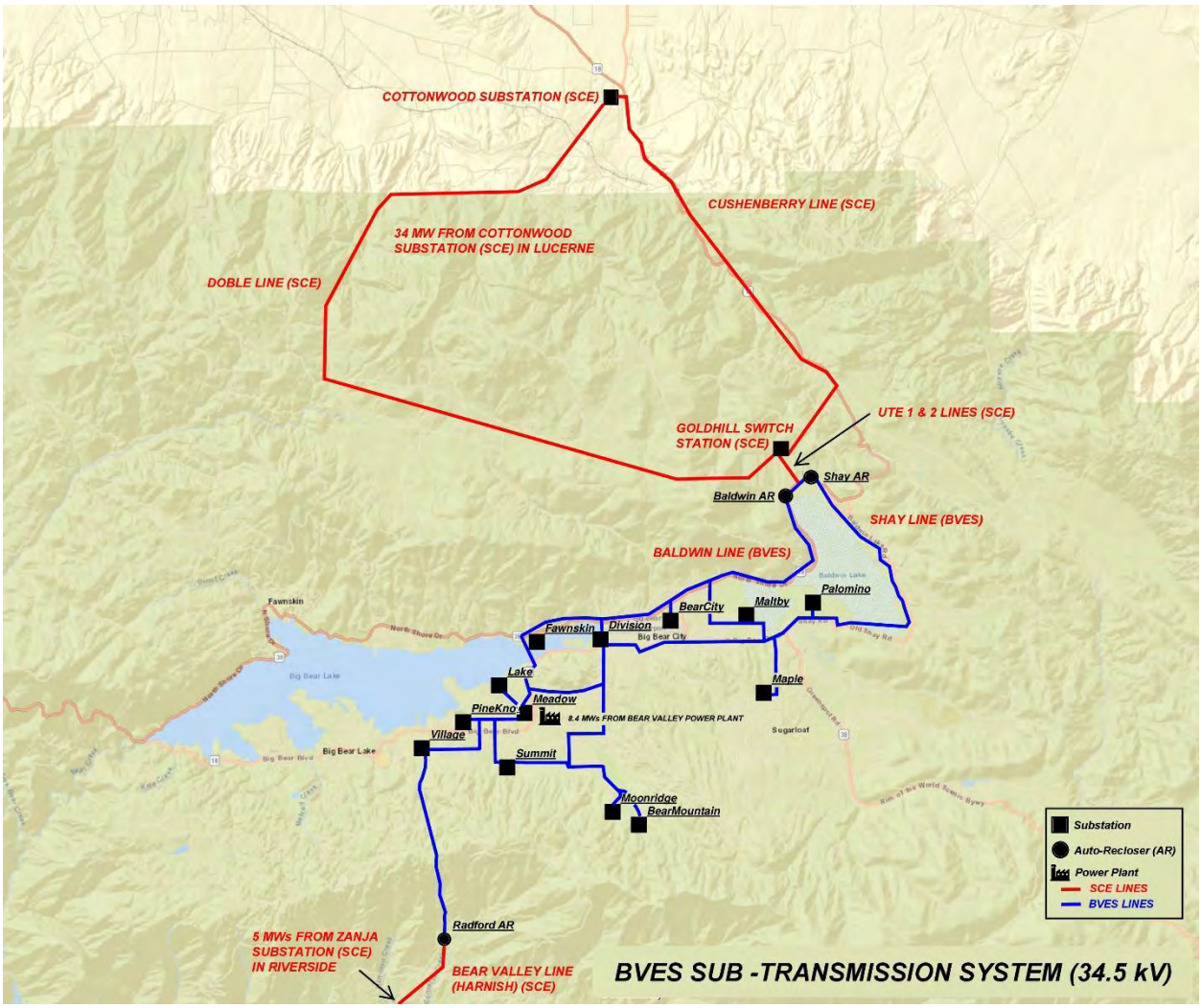
7 Compliance. This documented includes requirements invoked by:

- Safety and Enforcement Division Resolution, Electric Safety and Reliability Branch Resolution ESRB-8 8 of July 12, 2018: Resolution Extending De-Energization Reasonableness, Notification, Mitigation and Reporting Requirements in Decision 12-04-024 to All Electric Investor-Owned Utilities (IOU).
- California Public Utilities Commission Decision 19-05-036 of May 30, 2019: Guidance Decision on 2019 Wildfire Mitigation Plans Submitted Pursuant to Senate Bill 901.
- California Public Utilities Commission Decision 19-05-040 of May 30, 2019: Decision on 2019 Wildfire Mitigation Plans of Liberty Utilities/CalPeco Electric; Bear Valley Electric Service, a Division of Golden State Water Company; and Pacific Power, a Division of PacifiCorp Pursuant to Senate Bill 901.
- California Public Utilities Commission Decision 19-05-042 of May 30, 2019: Decision Adopting De-Energization (Public Safety Power Shutoff) Guidelines (Phase 1 Guidelines).
- California Public Utilities Commission Decision 20-03-004 of March 12, 2020: Decision on Community Awareness and Public Outreach Before, During and After a Wildfire, and Explaining Next Steps for Other Phase 2 Issues.
- California Public Utilities Commission Decision D20-05-051 of May 28, 2020: Decision Adopting Phase 2 Updated and Additional Guidelines for De-Energization of Electric Facilities to Mitigate Wildfire Risk.
- California Public Utilities Commission Decision D21-06-024 of June 24, 2021: Decision Adopting Phase 3 Revised and Additional Guidelines and Rules for Public Safety Power Shutoffs (Proactive De-Energizations) of Electric Facilities to Mitigate Wildfire Risk caused by Utility Infrastructure

Appendix A: BVES "High Risk Areas" for PSPS Consideration



Appendix B: BVES Supply Lines, Sources of Power and Sub-Transmission System



APPENDIX C: COMMON ACRONYMS

Acronym	Definition
AAR	After Action Report
COA	Course of Action
DHS	U.S. Department of Homeland Security
EEG	Exercise Evaluation Guide
EOC	Emergency Operations Center
FEMA	Federal Emergency Management Agency
HSEEP	Homeland Security Exercise and Evaluation Program
HSPD	Homeland Security Presidential Directive
HQ	Headquarters
ICS	Incident Command System
IP	Improvement Plan
ISR	Initial Situation Report
N/A	Not Available
NIMS	National Incident Management System
NRF	National Response Framework
NWS	National Weather Service
OPORD	Operations Order
Ops	Operations
POC	Point of Contact
PPD	Presidential Policy Directive
RSOI	Reception, Staging, Onward Movement, and Integration
SitMan	Situation Manual
SME	Subject Matter Expert
SOG	Standard/Standing Operating Guidelines
TBD	To Be Determined
FE	Functional Exercise

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions.	Rulemaking 18-12-005 (Filed December 13, 2018)

BEAR VALLEY ELECTRIC SERVICE, INC. (U 913 E) PLAN TO ADDRESS ACCESS AND FUNCTIONAL NEEDS DURING DE-ENERGIZATION EVENTS

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February 1, 2023

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions.	Rulemaking 18-12-005 (Filed December 13, 2018)

BEAR VALLEY ELECTRIC SERVICE, INC. (U 913 E) PLAN TO ADDRESS ACCESS AND FUNCTIONAL NEEDS DURING DE-ENERGIZATION EVENTS

In accordance with Ordering Paragraph 3 of Decision ("D.") 21-06-034 and the guidelines set forth in Appendix A, Section G – Medical Baseline and Access and Functional Needs (AFN) Communities to that decision, Bear Valley Electric Service, Inc. ("BVES") submits this plan to address access and functional needs ("AFN") customers and communities during a de-energization event. BVES' AFN plan is provided in Appendix A.

February 1, 2023

Respectfully submitted,

/s/ Jedediah J. Gibson

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Appendix A

BVES Access and Functional Needs Plan

Appendix J.

BEAR VALLEY ELECTRIC SERVICE, INC.'S PLAN TO SUPPORT POPULATIONS WITH ACCESS AND FUNCTIONAL NEEDS DURING PUBLIC SAFETY POWER SHUTOFFS IN 2023

FEBRUARY 1, 2023

TABLE OF CONTENTS

EXECUTIVE SUMMARY

In preparation for the submission of Bear Valley Electric Service, Inc.'s (BVES) Plan to Support Populations with Access and Functional Needs during Public Safety Power Shutoffs (PSPS) in 2023, BVES has participated in the Access and Functional Needs (AFN) Collaborative Planning team, AFN Core Planning Team and provided executive representation on the Statewide Joint IOU AFN Advisory Council. To support individuals with AFN during potential PSPS events, BVES has additionally participated in the creation of an annual support plan with assistance from regional and statewide AFN stakeholders. Beginning in 2023, that plan will leverage the Federal Emergency Management Administration's (FEMA) Comprehensive Preparedness Guide six-step Process. To measure progress on the implementation of that plan, BVES will continue to provide quarterly updates to the California Public Utilities Commission (CPUC).

The main risk identified through collaboration with AFN stakeholders that this plan is intended to mitigate is "Individuals with AFN are unable to use power for devices/equipment for health, safety, and independence due to an unexpected PSPS or are unprepared for a PSPS." BVES followed the same outline as identified with the statewide AFN Collaborative Planning Team to address "Who," "What," and "How" to support individuals with AFN and mitigate risks associated with PSPS events.

WHY

As climate conditions change, wildfires have become a year-round threat. When wildfire conditions present a safety risk to our customers and communities, electric utilities may call for a PSPS as a measure of last resort.

A PSPS, although necessary, disrupts the everyday lives of impacted individuals, including those with AFN. The purpose of this Plan is to mitigate the impact of PSPS on individuals with AFN.

WHO

The Joint IOU Statewide AFN Advisory Council and AFN Core Planning Team developed a definition of Electricity Dependent individuals that this Plan seeks to support. That definition remains unchanged from 2022.

Electricity Dependent Definition: Individuals who are at an increased risk of harm to their health, safety and independence during a Public Safety Power Shutoff for reasons including, but not limited to:

- Medical and Non-Medical
- Behavioral, Mental and Emotional Health
- Mobility and Movement
- Communication

WHAT & HOW

Working alongside the AFN Collaborative Council and AFN Core Planning Team, the IOUs have worked to identify the goals, objectives, and potential opportunities for enhancements in 2023, outlined in this Plan.

The overarching goal is to mitigate impacts of a PSPS on individuals with AFN served by the IOUs through improved customer outreach, education, assistance programs and services.

INTRODUCTION

As climate conditions change, our region is facing drier and hotter weather conditions making wildfires a year-round threat. The IOUs continually monitor weather and other climate conditions to detect fire conditions. When wildfire risk conditions present a safety threat to the safety of our customers and communities, electric utilities may call for a PSPS as a measure of last resort. PSPS de-energization activations disrupt the everyday lives of all individuals impacted. This 2023 Plan focuses primarily on individuals and communities with Access and Functional Needs, as they may be disproportionately impacted by PSPS activations. The plan was developed incorporating elements from the AFN Core Planning Team comprised of leaders in the AFN community and the utilities.

Leveraging the FEMA Comprehensive Preparedness Guide six-step Process, BVES attended AFN Core Planning Team meetings and observed the execution of a "whole community approach" to develop an overarching Joint IOU Statewide template to meet the diverse needs of the individuals with AFN. BVES utilized this template to develop an AFN plan for 2023, despite never implementing a PSPS ever before. BVES acknowledges the significant variance in available resources, system limitations and geographical differences that are evident when compared to larger IOUs throughout the state.

BVES will file its annual plan as required by the CPUC regarding its planned efforts to address people/communities with AFN during PSPS. Additionally, the IOUs will provide the CPUC with quarterly updates regarding the progress towards meeting the established plans and the impact of its efforts to address this population during PSPS.

Subject Matter Experts (Engage the Whole Community)

Each of the IOUs have engaged regional and statewide AFN stakeholders from a broad-spectrum of various expertise for the development of this plan in alignment with Step 1 of the FEMA Process:

FEMA Step 1: Engaging the Whole Community in the Planning. Engaging in community-based planning, planning that is for the whole community and involves the whole community, is crucial to the success of any plan.

On September 14, 2022, the IOUs introduced this effort at the broader Q3 Joint IOU Statewide AFN Advisory Council meeting, invited participation, and subsequently held a kick-off meeting with Core Planning Team members on October 14, 2022. The 2023 AFN Core Planning Team is comprised of 13 organizations representing the diverse needs of the AFN community.

Joint IOUs	San Diego Gas & Electric
	Southern California Edison (SCE)
	Pacific Gas & Electric (PG&E)

AFN Collaborative Council (per the Phase 3 OIR PSPS Decision):	California Foundation for Independent Living Centers (CFILC)
	California Health & Human Services (CHHS)
	California Office of Emergency Services (Cal OES)
	Disability Rights California (DRC)
	Disability Rights Education & Defense Fund (DREDF)
	State Council on Developmental Disabilities (SCDD)
AFN Core Planning Team	American Red Cross
	Bear Valley Electric Service, Inc.
	California Department of Developmental Services (CDDS)
	California Foundation for Independent Living Centers (CFILC)
	Center for Accessible Technology (C4AT)
	Deaf Link, Inc.
	Disability Action Center (DAC)
	Disability Policy Consultant
	Interface Children & Family Services 211
	Liberty Utilities
	North Los Angeles Regional Center (NLACRC)
	Redwood Coast Regional Center (RCRC)
	San Diego Regional Center (SDRC)

As a key component to engage the whole community in planning, BVES is also planning to solicit feedback from the Joint IOU Statewide AFN Advisory Council, their respective Regional PSPS Working Groups (SMJU focus) and other AFN experts. These groups serve as a sounding board and offer insights, feedback, and input on BVES's customer strategy, programs, and priorities. Regular meetings are scheduled to actively identify issues, opportunities, and challenges related to the IOUs ability to mitigate the impacts of wildfire safety strategies, namely PSPS, and other emergencies throughout California.

AFN Experts:

- Wildfire Community Advisory Meetings
- Big Bear Fire Safe Council
- Local Government
- Cal OES
- CBOs
- SMJU Collaboration

1. PURPOSE, SCOPE, SITUATION OVERVIEW, AND ASSUMPTIONS

1.1 Purpose/Background

During extreme weather or wildfire conditions, electric utilities may proactively turn off power for public safety, as a measure of last resort. Public Safety Power Shutoffs (PSPS) disrupt the everyday lives of all impacted individuals.

The purpose of BVES' plan to support populations with access and functional needs during Public Safety Power Shutoffs is to mitigate the impacts of public safety power shutoff on access and functional needs individuals served by the utility through improved customer outreach, education, assistance programs and services.

BVES is focused on building foundational connections and expanding existing networks within the Big Bear community to continually improve awareness and support of AFN needs. BVES continues to work to understand existing local resources and establish relationships required to support the AFN population throughout the service territory. In addition, BVES will continue coordinating with the Statewide Collaborative Planning Team to make informed improvements through observing practices from larger IOU and agency proven successes.

BVES continues to seek methods of improvement in data collection and analysis, while improving the existing limitations that exist within CIS, OMS and GIS systems. BVES continuously works to vigorously enhance and improve their CIS to record additional AFN categories of customers and is striving to consistently work on OMS integration and testing. System improvements have been a significant area of focus. This effort will continue to be a main point of focus throughout 2023 and beyond.

1.2 Scope

Leveraging the FEMA Comprehensive Preparedness Guide 6 Step Process, BVES along with the IOUs and SMJUs collaborated with the AFN Core Planning Team and have worked to engage the whole community and develop an overarching Statewide approach that meets the diverse needs of the individuals with AFN.

Access and Functional Needs is defined by California Government Code §8593.3 as: *"individuals who have developmental disabilities, physical disabilities, chronic conditions, injuries, limited English proficiencies, who are non-English speakers, older adults, children, people living in institutional settings, or those who are low income, homeless, or transportation disadvantaged, including but not limited to, those who are dependent on public transit and those who are pregnant."*

Recognizing this is a very broad audience, this plan focuses on minimizing the impact of a PSPS on electricity dependent individuals with AFN. To understand these impacts, the Joint IOU AFN Advisory Council developed a preliminary understanding of the term "electricity dependent." This preliminary definition is intended to help inform new/enhancements to the programs and resources that are currently available.

The utilities are filing individual versions of their 2023 AFN plans to include territory-specific details for meeting the needs identified by the Core Planning Team. The comprehensive plans

reflect the geographical differences as well as the diverse needs of the AFN community, while optimizing opportunities for consistency statewide.

1.3 Situation Overview

1.3.1 Hazard Analysis Summary – Definition of Risks

FEMA Step *2: Understand the Situation. Understanding the consequences of a potential incident require gathering information about the potential AFN of residents within the community.* "Understand the Situation," continues with identifying risks and hazards. The assessment helps a planning team decide which hazards or threats merit special attention, what actions must be planned for, and the resources likely to be needed.

The key risk identified by the Core Planning team in 2023, which continues into 2024 is "*Individuals with AFN are unable to use power for devices/equipment for health, safety, and independence due to a PSPS."*

During the planning process, the AFN Core Planning Team emphasized that the needs of individuals with AFN extend well beyond medical devices alone and that the risks are as diverse as the population. The IOUs recognize the impacts of PSPS are dynamic and are committed to supporting customers before, during and after a PSPS.

1.3.2 AFN Population - AFN Identification

BVES is a small electric utility in the Big Bear Lake recreational area of the San Bernardino Mountains located about 80 miles east of Los Angeles that provides electric distribution service to 24,650 residential customers in a resort community with a mix of approximately 40% full-time and 60% part-time residents. Its service area also includes 1,497 commercial, industrial and public-authority customers, including two ski resorts and the local waste-water treatment facility. BVES differs significantly from California's largest electric investor-owned utilities, Pacific Gas & Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company (collectively, the "Large IOUs"). BVES has a substantially smaller customer base over which to spread fixed costs of service, has a mountainous and remote service territory subject to greater seasonal climate fluctuations, and faces greater resource limitations in comparison to the Large IOUs. The Commission has historically recognized these distinctions between BVES and the Large IOUs. BVES continues work on system modifications to CIS and OMS to allow the recording of AFN customer categories and data beyond medical baseline customers. As of December 31, 2022, the CIS system identifies (197) Medical Base Line (MBL) customers marked as AFN customers. BVES total AFN customers (582).

BVES is continuously working to evaluate and seeks to implement system enhancements, modifications and manual work around on the CIS, OMS, and GIS systems. Data tracking continues to be reviewed for areas of improvement to allow BVES more visibility into the AFN customer population. In 2022, BVES explored options to establish the ability to track AFN categories of customers beyond MBL in the CIS, including the following categorical identifiers: AFN customers enrolled in low-income programs, AFN customers with a physical, intellectual or developmental disability, AFN customers with a chronic condition or injury, AFN customers identified with limited English proficiency, AFN customers in households with

older adults / children, AFN homeless / transportation disadvantaged customers, and an additional AFN category for customers who wish to self-identify but may not necessarily fit into the aforementioned categories.

As a part of BVES' recent and ongoing system improvements, the capability to map AFN customers beyond MBL is anticipated to be integrated into the OMS in the near future and further refined throughout 2023.

- List of Risks and Hazards - Potential Consequences

BVES understands the risk analysis completed by the AFN Core Planning Team and has found it helpful in understanding the variety of diverse risks that exist for AFN populations.

- Customer Research and Surveys

In 2022, BVES partnered with MDC Research to execute two waves of surveys to measure the public's awareness of messaging related to wildfire preparedness and safety. Customers were surveyed at random, targeted for either phone or web administration. Surveys were available to customers in English and Spanish.

The first wave of surveys conducted between June 13, 2022 and June 29, 2022 resulted in completion of 400 surveys, including 13 from critical customers. The second wave of surveys conducted between December 28, 2022 and January 15, 2023 resulted in completion of 423 surveys, including 30 from critical customers.

Notable customer survey findings include:

- Among those reporting that they rely on electricity for medical needs, one quarter are aware of additional notices from BVES.
- 98% of respondents indicated it would not be helpful to receive communications in a language other than English.
- **43%** are aware they can **update their contact information with BVES**, and 61% of those have done so, in line with June 2022 findings.
- Similar to June 2022, 16% say they know **whether their address is in PSPS area**, and **11% are aware** of a **PSPS map on BVES' website.**

In addition to customer surveys, MDC Research conducted Community Based Organization interviews to request feedback and gather suggestions on the most effective approaches to PSPS communication within the community. The first wave of interviews resulted in two completed CBO interviews, whereas the second wave resulted in four completed CBO interviews.

Notable CBO interview findings include:

- Community Based Organizations interviewed expressed a willingness and ability to share BVES PSPS preparedness information to the community during typical interactions, through social media and by handing out printed materials provided by BVES.

- English and Spanish are the primary languages required for effective communication in the communities BVES provides service to.

- Simplified, easy-to-understand written communications are of importance to reach individuals with all levels of reading comprehension.

Additional survey information used to inform BVES' 2022 approach in effectively reaching customers include findings that email remains the most commonly recalled channel for wildfire preparedness communication. In terms of clarity, direct mail is rated the highest; bill inserts and other websites are rated as the most useful sources of information about wildfire preparedness. Customers say they most often recall seeing or hearing messages about wildfire on TV news, social networks and through word of the mouth.

In 2023, BVES plans to seek out additional resources to collaborate with in executing surveys and research specific to AFN needs before, during and after PSPS events. BVES also plans to explore availability of existing resources and identification of gaps that may exist through further discussions and expansion of relationships with agencies, cities, counties and local organizations.

- Accessibility Webpage and Feedback

BVES plans to continue improvements in accessibility of their webpage. Improvements in 2022 include the addition of 211 resource information on the web, as well as successful development of a self-identification tool for AFN customers in both Spanish and English languages.

1.3.3 Success Measures and Metrics

BVES intends to integrate key performance indicators (KPIs) to measure impacts of PSPS. These indicators include understanding the percentage of individuals with AFN who were aware of what support and resources were available to them during PSPS and the percentage of individuals with AFN who reported being satisfied with level of utility communication around PSPS preparedness and event updates. BVES plans to obtain this information by including these indicators in future AFN surveys. Additional methods to monitoring effectiveness in AFN support include monitoring web traffic and self-identification tool utilization rates, as well as tracking AFN attendance at CRC locations during PSPS events.

1.3.4 Capability Assessment - Statewide/Local Research

FEMA Step 3: Operational priorities – specifying what the responding organizations are to accomplish to achieve a desired end-state for the operation.

BVES has assessed the current state of resources given the matrix provided to the AFN Collaborative Working Team.

PSPS IOU Resource Matrix – Overview

*offered in 2020

Resources		PacifiCorp	Liberty	BVES
Community Resource Centers	Wi-fi, ADA-accessible restroom, bottled water, snacks, charging, chairs, ice, event information & area/weather items	x	x	x
Power Resiliency	Portable backup batteries for Medical Baseline customers			x
	Generator Rebate Program			
Food Replacement	Food Bank Partnerships			
	Meals on Wheels			
	Community Resource Center – Hot meals			
	Grocery Gift Cards		x	
	Food delivery			
Transportation				x
Lodging			x	x
IOU Customer Communications	Annual Preparedness Outreach	x	x	x
	In Language Materials	x	x	x
	Accessible Materials	x	x	x
	CBO Partners	x	x	x
Training	General Information	x	x	x
	Tabletop exercises and full-scale exercises	x	x	x
Community Engagement	IOU hosted events, Webinars, Advisory Boards, Working Groups	x	x	x
PSPS Notifications	Account Holders	x	x	x
	Non-Account Holders (PG&E/SDG&E Address; SCE Zip Code)	x	x	
	Broad: via multicultural media, CBOs, and social media	x	x	x
Notification Confirmation (Phone retries & in person doorbell rings)	Life Support/Critical Care	x	x	x
	Medical Baseline	x	x	x
	Self Certified Vulnerable Customer Status	x		

FEMA: Step 4: Plan Development - Develop and Analyze Courses of Action – This step is a process of generating, comparing, and selecting possible solutions for achieving the goals and objectives identified in Step 3. Planners consider the requirements, goals, and objectives to develop several response alternatives. The art and science of planning helps determine how many solutions or alternatives to consider; what works in one territory might not be available and/or relevant in another territory. While there is a desire to have a consistent response across all the IOUs, it is not entirely possible.

Community Resource Centers: BVES continues to work to establish agreements with community partners and facilities throughout the service territory in preparation for PSPS events. More information on CRCs can be found in section 2.1.2.

Power Resiliency: Section 2.1.5 provides detail on BVES's current state.

Food Replacement: BVES is exploring options to fulfill this.

Transportation: BVES does not currently partner with transportation / paratransit services and plans to seek out existing transportation / paratransit services available to customers in 2023.
BVES has reached out to the local public transportation service (MARTA) and was informed that they may be able to assist with non-medical transportation on an as available basis.

Lodging: BVES has contracted lodging services for customers during significant outage events on an as needed basis and looks to continue partnership with local organizations to remain aware of community needs.

IOU Customer Communications:

BVES conducts annual preparedness outreach and has an established communications plan for PSPS preparedness communication.

In Language / Accessible Materials: BVES provides all PSPS toolkit information in English and Spanish. BVES looks to continually improve accessibility of materials throughout 2023.

CBO Partners: BVES communicates with Community Based Organizations throughout the service territory and is currently focused on expanding CBO networks throughout 2023.

Training: BVES regularly conducts training, tabletops and PSPS exercises for all BVES employees to prepare for potential PSPS events.

Community Engagement: BVES hosts community meetings throughout the service territory to educate on the PSPS determination and notification process and detailing ways for customers to prepare. When applicable, BVES will co-host meetings with Public Safety Partners and AFN advocacy groups. BVES also discusses PSPS preparation with CBOs during physical and/or virtual meetings throughout the year. BVES provides PSPS materials to CBOs, city, county and school contacts proactively.

PSPS Notifications:

Account holders: BVES provides PSPS notification to account holders. See section 2.2 for more information.

Non-account holders: BVES plans to provide PSPS notification to non-account holders, such as Public Safety Partners, Critical Infrastructure contacts and CBOs. See section 2.2 for more information.

Community Based Organizations: BVES provides PSPS notification through a variety of communication channels. See section 2.2 for more information.

Notification Confirmation: BVES confirms PSPS notification receipt of all potentially impacted MBL customers. BVES treats all MBL customers as critical customers. See section 2.2 for more information.

1.4 Planning Assumptions

- For most PSPS events, there is likely to be advanced notice
- The scope of PSPS events can expand or contract rapidly in a short period
- Effective support of individuals with AFN requires a whole community (i.e., utilities, CBOs, non-profits organizations, government agencies) approach
- PSPS events may occur concurrent with unrelated emergencies

2. CONCEPT OF OPERATIONS

2.1 Preparedness/Readiness (Before Power Shutoff)

2.1.1 AFN Identification Outreach

BVES plans to execute AFN identification outreach through a variety of channels throughout 2023. Additional methods of AFN identification include CBO and community outreach targeted efforts to encourage AFN self-identification and increase awareness of resource availability.

2.1.2 AFN Support Resources

- 211 Care Coordination & Referral Service

BVES plans to continue to engage contacts throughout the State of California to increase collaboration throughout 2023. 2-1-1 offers support to residents of San Bernardino County. BVES successfully implemented a webpage dedicated to 211 customer resource information during 2022. BVES does not currently participate in 211 Care Coordination contracts, however, 211 partnership is an area of focus and further exploration in 2023.

- Resource Planning and Partnerships

BVES anticipates further exploration of CBO and agency partnerships on an ongoing basis throughout 2023 in terms of AFN specific support and resource planning.

2.1.3 Back-Up Power

BVES has program material from SCE's Critical Care Back up battery (CCBB) program and is in the process of incorporating this information into our operating practices. We have staff available to deploy batteries on a small scale and educate each customer on the basic functionality of each battery unit. BVES also has an 8.4MW natural gas generation station in its service territory, available to produce energy during emergency events.

2.1.4 Customer Assistance Programs

- Medical Baseline Allowance Program (MBL)
- Energy Saving Assistance (ESA) Program
- California Alternate Rates for Energy (CARE)

2.1.5 Emergency Operations Centers

BVES will activate their Emergency Operations Center (EOC) if forecasted sustained wind or 3-second wind gusts expected to exceed 55 mph or actual sustained wind or 3-second wind gusts exceed 45 mph and expected to increase. Under normal conditions the Field Operations Supervisor controls the system line-up and during EOC activation the system line-up is controlled by the Storm Operations Supervisor (SOS).

2.1.6 PSPS Preparedness Outreach and Community Engagement

- Advisory Councils
- CBO Outreach

BVES seeks out opportunities to provide PSPS preparedness information through established Community Based Organizations regularly throughout the year. BVES leadership has fostered a working relationship with the City of Big Bear Lake, where the city manager has a direct line of communication with the President of BVES.

BVES executes customer outreach to share information about customer programs (CARE, ESA, MBL) and PSPS awareness through a variety of methods including community events, website resources, social media, bill inserts, targeted outreach to multi-family dwellings and mobile home parks, radio ads (multicultural media), digital ads, print ads and through call center staff. AFN identification and available resource communication will be a focus in 2023.

As a result of recent MDC Research customer and CBO survey results, areas of focus for 2023 include increased messaging around preparation of emergency kits and readiness. Suggestions provided by customer and CBO feedback highlight the effectiveness of increased use of email, local media and driving website traffic to existing PSPS information.

Development of additional materials related to AFN self-identification and available resources is an area of focus for BVES in 2023.

Customer recall increased significantly between the recent two waves of MDC

surveys in terms of emergency services communications. BVES plans to consider ways to further partner with local organizations and emergency services to more effectively reach customers.

Utilizing CBO networks and targeted customer program outreach including multi-family housing, community events and direct mailings are an identified area of opportunity to expand customer communications in terms of AFN identification and increase customer awareness of available resources.

- Tribal Engagement

BVES does not have a tribal community in its service territory.

- Marketing and Communications

BVES has developed the following communications outreach plan to notify access and functional needs (AFN) customers of pertinent Public Safety Power Shutoff (PSPS) status updates, including ongoing proactive education.

BVES will continue to engage AFN customers throughout the year, and especially during wildfire season, to educate on the PSPS determination and notification process and how customers can prepare for prolonged de-energization through the following channels:

Community Meetings: BVES will host community meetings throughout the service territory to educate on the PSPS determination and notification process and detailing ways for customers to prepare. When applicable, BVES will co-host meetings with Public Safety Partners and AFN advocacy groups.

Website: BVES will publish and maintain PSPS web copy outlining BVES' determination and notification process and detailing ways for customers to prepare, including information specific to AFN populations.

Social Media: BVES will post content to Facebook notifying customers of BVE's PSPS determination and notification process and outlining safety information specific to AFN populations.

Customer Email: BVES will distribute an email notifying customers of BVES' PSPS determination and notification process and outlining safety information specific to AFN populations.

Bill Insert/Mail: BVES will distribute a bill insert/mailer notifying customers of BVES' PSPS determination and notification process and outlining safety information specific to AFN populations.

Throughout 2023, BVES plans to assess and enhance communication accessibility. Notable areas of focus are additional Spanish language support and AFN available resource and self-identification information accessibility on BVES webpages.

- Translations

BVES call centers provide customer access to bilingual (Spanish and English) Customer Service Representatives.

2.1.7 Community Resource Centers (CRCs)

BVES has established an internal working group comprised of representatives from a variety of departments including Emergency Management and Wildfire Mitigation to focus on Community Resource Center planning. The group meets to develop plans, determine priorities, and execute required action for CRC preparedness in 2023. This internal group continues to develop a thorough approach to CRC execution and collaborates externally with community stakeholders.

BVES plans to provide snacks, water, device charging ability, Wi-Fi, ADA accessible restrooms, resource information, BVES Customer Service staff (including bilingual representation when possible), portable cell phone chargers, and blankets at CRC location. CRC location present a unique opportunity for program enrollment, PSPS preparedness information sharing and AFN identification, and BVES plans to provide information on CARE, ESA and MBL programs at its CRC. PSPS Toolkit information will be shared in English and Spanish at CRC location.

2.2 PSPS Activation (Emergency Operation Center activated)

2.2.1 MBL Customer Communication

To identify MBL customers for an event, BVES identifies MBL customers with accounts in the potentially impacted PSPS zone. The MBL notification sequence is as follows:

1. OMS notification
2. Two-way Text Communication
3. If no positive contact, phone call to customer from customer service representative.
4. If no positive contact, physical site visit to the residence.
5. If no positive contact, door hanger notification left at the residence.

To contact MBL customers behind master metered accounts, BVES consults a list of master meter locations to determine if these meters are in the Public Safety Power Shut-off ("PSPS") de-energization zone. Each master meter has a database that provides behind-the-meter information. From this database, BVES can determine if there are MBL customers, who they are, and what units they occupy. The communication steps utilized for MBL customer contact also apply to master meter MBL customer contact.

- PSPS Notifications

BVES will notify AFN customers before, during and after a PSPS through the following channels (posted and updated as needed):

OMS Alerts: BVES OMS system is alerted of an outage, identifies the outage area, identifies the customers affected, and will distribute an alert through the OMS system notifying customers of the status of the PSPS.

Two-way Text Communications: BVES has the capability of notifying customers who opted in for two-way text communications of an outage, the status of an outage, and restoration of an outage.

Community-Based Organizations (CBO): BVES will notify CBOs that serve AFN populations of the status of the PSPS and request that they distribute the alert to their contact list. CBOs may include:

- Unhoused shelters
- Food banks
- Special needs programs

Critical Facilities & Infrastructure: BVES will notify critical facilities and infrastructure of the status of the PSPS and request that they distribute the alert to their own contact lists.
Critical facilities and infrastructure include:

- Police stations
- Fire stations
- Big Bear Community Hospital

Website: BVES will publish an alert to the website notifying customers of the status of the PSPS and outlining safety information specific to AFN populations.

Social Media: BVES will post content to Facebook notifying customers of the status of the PSPS and outlining safety information specific to AFN populations.

Customer Email: BVES will distribute an email to all customers affected by a PSPS, including those in the AFN community notifying them of the status of the PSPS and outlining safety information specific to their needs. An enhancement in 2023 will include Spanish language messaging within PSPS customer emails.

News Release: BVES will distribute a news release to local media outlets alerting customers of the status of the PSPS and outlining safety information specific to AFN populations. In 2021, BVES added multicultural media outlets to lists of media contacts utilized for PSPS notification.

Customer Service Representatives (CSR): BVES will provide CSRs with information specific to safety guidelines and resources for AFN customers during a PSPS.

All content intended for customers will be translated and disseminated in English and Spanish, when possible. Please note, social media parameters may prohibit the sharing of information in multiple languages. All digital content intended for customers will additionally

be compliant with ADA regulations.

2.3 Recovery (After - Power has been restored)

2.3.1 AFN Customer Support

- After Action Reviews and Reports

BVES intends to continue partnerships with local organizations to remain aware of customer needs before, during and after PSPS events.

- Lessons Learned and Feedback
- Customer Surveys

An area of opportunity in 2023 for BVES is expansion of customer, CBO and public safety partner surveys before and after PSPS events.

3. INFORMATION COLLECTION, ANALYSIS AND DISSEMINATION

3.1 Customer Privacy SMJU

BVES has entered into new confidentiality agreements with both the City of Big Bear Lake and the Big Bear Fire Department to begin the process of data sharing amongst agencies. BVES has also developed new contacts and working relationships with the local Red Cross representatives in its district, as well as other community organizations such as the Mountain Mutual Aid Association and Fire Safe Big Bear. Other efforts to contact visually and hearing- impaired citizens is underway by reaching out to the California Council of the Blind, the Center for Access Technology, Disability Disaster Access Program & Resources, and NorCal Services for the Deaf and Hard of Hearing to better identify customers of need.

4. AUTHORITIES AND REFERENCES

4.1 Annual Report and Emergency Response Plan in Compliance with General Order 166

The Emergency Response Plan (ERP) is provided to all "BVES employees to ensure an efficient, effective and uniform response during an emergency situation. BVES recognizes the importance of an integrated ERP to safely provide for the energy needs of our customers and the requirements of our stakeholders in the event of an emergency.

The ERP further establishes the structure, processes and protocols for the Company's emergency response and identifies departments and individuals that are directly responsible for that response and critical support services. In addition, it provides a management structure for coordination and deployment of the essential resources necessary for the response.