

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

October 6, 2021

Approved by: Paul Marconi,
President BVES, Inc.
Paul Marconi, President, Treasurer, & Secretary

Digitally signed by Paul
Marconi, President BVES, Inc.
Date: 2021.10.06 07:12:42
07:00'

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

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.

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

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

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

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.

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

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.

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

- 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.

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

- 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.

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

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.

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

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.

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

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.

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

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.

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

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.

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

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.

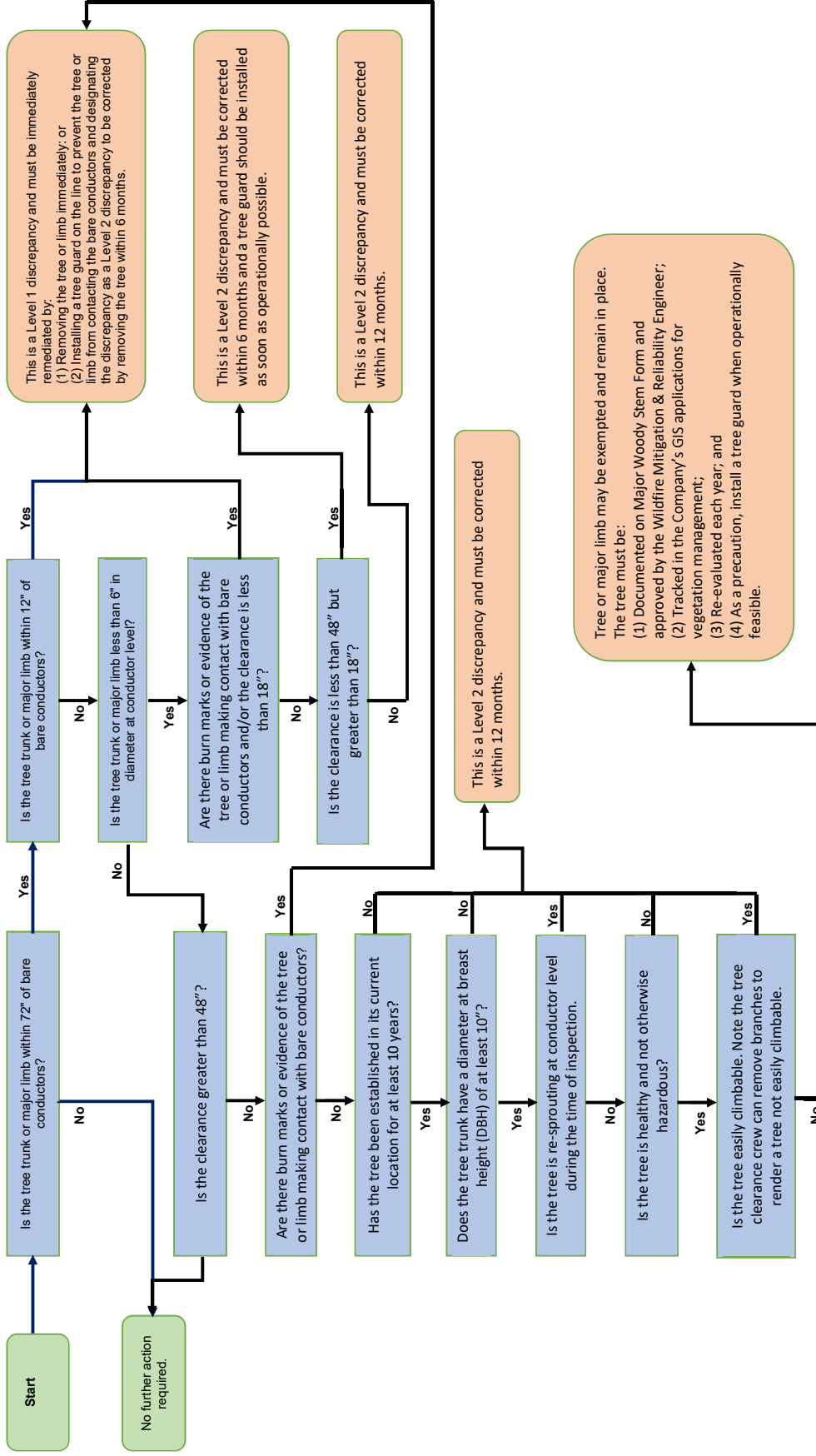
5.4.7. The Wildfire Mitigation & Reliability Engineer will also analyze the results of the VM QC Checks for trends and recommend corrective action to the Utility Manager if deemed necessary. This analysis shall be included in the Quarterly VM Program Assessment report.

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



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

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?

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

**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: _____

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

Comments:
