

AMADOR COUNTY TREE MORTALITY MITIGATION IMPLEMENTATION PLAN

**Prepared for:
Amador County**



**Prepared by:
TSS Consultants**



**As adopted by the Amador County
Board of Supervisors
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INTRODUCTION

Amador County has retained TSS Consultants (TSS) to provide Tree Mortality Coordinator (TMC) services to assist in mitigating hazardous conditions associated with tree mortality within the County. The focus for the TMC will be implementing County-directed efforts to abate hazards to its infrastructure. This will require coordination with other public agency and utility company programs targeting the removal of dead trees. Key responsibilities for the TMC will be supervision and administration of the County's contracts with the Tree Mortality Registered Professional Forester (RPF) and tree service firms retained to implement tree removal activities, and as appropriate, assisting the County in finding grant funding to support ongoing tree removal and hazard mitigation activities.

This implementation plan represents a Task 1 deliverable (per the TSS Scope of Work).

OBJECTIVES

The objective of Amador County's Tree Mortality Hazard Tree Removal Plan (dated May 20, 2016) is "to identify and mitigate dead and dying trees...focused on roads, county facilities and heliports." All County owned and maintained infrastructure will be inspected to identify dead and/or dying trees located at a distance such that a failed tree would reach that infrastructure. The County has a grant from the State Office of Emergency Services (OES) that will reimburse 75 percent of the costs for identifying and mitigating hazardous dead and dying trees. All requirements of OES for documenting the location and mitigation of hazardous dead and dying trees will be met to ensure reimbursement. These requirements were established during a meeting between the County, TMC, RPF and OES on January 17, 2016.

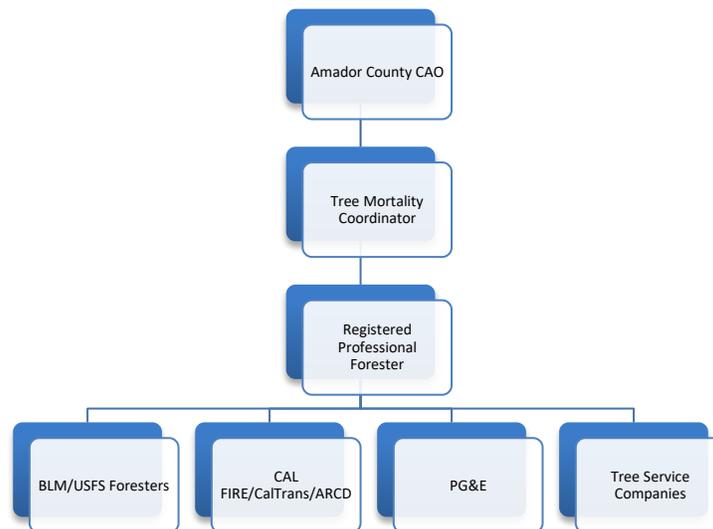
In cases where dead and dying trees are located on privately-owned properties the County will obtain right-of-entry to identify and mitigate those trees. No actions can be taken on private property without the consent of the property owner. The County cannot commit public resources to the identification and mitigation of dead and dying trees on private property where those trees do not pose a hazard to public infrastructure. The County will however, advise private property owners on their options for abating hazards affecting their assets. For example, additional resources for private property owners may be available through County and State

Tree Mortality Task Force websites and through grants from CALFIRE to the Amador County Resource Conservation District (RCD).

The County will coordinate its efforts to abate hazards with the efforts of other entities conducting similar actions. Those entities include but are not limited to Pacific Gas and Electric company (PG&E), other utility companies, state agencies such as CALTRANS and CAL FIRE, cities, homeowner associations, Fire Safe Councils, RCD, and federal agencies such as USDA Forest Service and the Bureau of Land Management. Leveraging and coordinating joint activities will be encouraged to the extent possible. Project areas will be prioritized based on addressing multiple benefits (e.g., hazard tree removal, reduction of hazardous fuels, ensuring traffic safety, etc.) wherever possible.

REPORTING STRUCTURE

Outlined below is the general reporting structure. This reporting structure may change as the tree mitigation project evolves.



PLANNING PROCESS

Existing information indicates as of June 2016, there were over 3,000 dead and dying trees located along County roads east of Highway 49. Recent tree removal projects along those roads have reduced the number of hazard trees in some

locations. The surveys that these data are based on were partial and did not include all County roads or infrastructure. Also, there has been additional mortality since the surveys were conducted. The first step in the planning process will be to conduct a complete survey of all County infrastructure. That survey must be preceded by several preparatory actions.

Consultation with Other Tree Mortality Counties

Several counties in the Sierra Nevada tree mortality emergency area are already engaged in the identification and mitigation of dead and dying trees affecting their infrastructure. There are lessons to be learned from their experiences. The County's TMC and RPF will consult with responsible individuals and companies within these other counties to obtain information and advice. Issues to be discussed will include:

- Methods and approaches used to identify and inventory dead and dying trees (to assure compliance with OES documentation requirements).
- Securing right-of-entry to private properties (lessons learned, forms used).
- Experiences with tree mitigation contractors (lessons learned, RFP/RFB template, contract for services template, desired future condition definition).
- End uses and disposal of trees and associated slash.
- Legal and regulatory issues.
- Compliance with state and federal laws.
- Tracking chain of custody for logs and biomass (to comply with biomass power feedstock tracking requirements).
- Reimbursement from OES and other matters as appropriate.

The lessons learned from these counties will be used to develop and refine the procedures described below. Consultation with other counties has already revealed the need to closely coordinate County actions with the actions of PG&E to avoid conflicts and to take advantage of tree mitigation that has already occurred or is planned. The advantages of having designated log disposal sites and accessing CAL FIRE crews for treating slash have also been established through consultations with Tuolumne County.

Obtain Required Software and Hardware for Conducting Surveys

Conducting surveys of dead and dying trees necessitates the use of the best available technology for identifying, describing and geo-referencing the locations

of dead and dying trees. Options such as software applications and geographical information systems will be evaluated, considering the experiences of other counties. The final choice of technology will be determined by the TMC and RPF in consultation with County administration, with full appreciation of County in-house capabilities.

To conduct surveys on private properties the owners of those properties must be identified and contacted to obtain right-of-entry. This requires access to the County Assessor's Office or other sources of information on current land ownership.

Develop Right-of-Entry Form

A draft form for obtaining right-of-entry to private properties has been developed utilizing existing examples provided by OES, other tree mortality counties and other sources such as Resource Conservation Districts and CAL FIRE. In addition to permitting access to properties, the form contains language releasing the county from liability. The draft form also contains specific information on the expected post-implementation conditions (aka Desired Future Condition) on the property including the disposition of trees and slash created by tree mitigation, and site restoration requirements (if any). The form permits the property owner to specifically request that logs and/or slash be left on site (and not removed). A description or referral to information on options available to landowners for abating hazards affecting their assets i.e., "frequently asked questions" will be included along with a cover letter from the County.

IMPLEMENTATION

Implementation entails securing access to properties, conducting surveys of dead and dying trees, marking and documenting trees to be removed or otherwise mitigated, engaging one or more contractors to perform the work, monitoring the performance of contractors and ultimately obtaining reimbursement from OES for the completed work.

Although it is hoped that all existing dead and dying trees affecting County infrastructure can be identified and mitigated under the terms of the existing OES grant, that may or may not end up to be the case. The available funding will be used to achieve the greatest possible benefit with the recognition that there may be existing areas that require treatment or future areas of mortality that will require additional funding.

Pilot Project

A pilot project that includes all steps described below will be implemented. The experiences and results of the pilot project will provide insights for the implementation of the whole program. Criteria for selecting the pilot treatment area may include:

- Importance as a transportation corridor, including emergency access.
- Property ownership e.g., parcel sizes, number of owners, presence of County owned land.
- Known level of mortality inferred from existing survey data.
- Potential for leveraging abatement activities of others (e.g., PG&E)

The implementation process outlined below will be completed in its entirety for the pilot area concurrently with the comprehensive survey of dead and dying trees affecting County infrastructure. The results of the pilot project will be used to adapt and improve all phases of implementation.

Identification of Parcels with Dead and Dying Trees

To be efficient and avoid unnecessary costs and efforts, a roadside survey of the pilot area and subsequent project areas will be conducted to identify parcels that have dead and dying trees. Observations indicate that in most locations mortality is scattered or concentrated in certain locations. The parcels with dead trees will constitute the ones to which right-of-entry forms for conducting surveys and tree mitigation will be mailed.

Obtaining Access to Private Properties

It is advisable to conduct informational meetings within communities to alert residents to upcoming actions by the County. This can be a useful way to gain support for the County project and ensure right-of-entry to private properties. The County tree mortality webpage can also be used to provide a schedule of upcoming survey and tree mitigation activities. Press releases and media coverage can also assist in this endeavor.

The right-of-entry form will be direct mailed to all property owners with dead and dying trees. If e-mail addresses are available, the form will also be sent electronically. Electronic mail can be particularly useful for contacting absentee owners. Permissions received will be logged along with refusals and non-

responses. A second mailing may be conducted to the latter groups. In the case of refusals, offers to discuss the project may be made to try and gain acceptance. For non-responses, the Tree Mortality Coordinator will consult with County staff to determine alternative courses of action. A final list of participating property owners will be provided to the RPF for use in conducting the tree survey. The RPF will also possess right-of-entry forms if non-participating property owners are contacted in the field while surveys are proceeding.

Survey of Dead and Dying Trees

The survey of dead and dying trees will be completed for all potentially affected County infrastructure to the extent that access to private properties is granted. The RPF will conduct the survey of dead and dying trees utilizing the hardware, software and OES criteria provided during the planning phase of the project. The first area surveyed will be the designated pilot area segment. All trees to be removed or otherwise mitigated will be clearly marked with distinctively colored paint at mid-bole and base. The TMC will monitor the work of the RPF for quality control and assurance.

Contracting for Tree Mitigation

It has not yet been determined if contracts for removing or otherwise treating dead and dying trees will require proposals or simply bids. That depends on how specific the contract needs to be to meet County objectives. There are several important things to consider:

- Equipment to be used and experience of personnel.
- Contractor safety record.
- Site conditions (e.g., slope, access, presence of improvements etc.).
- Anticipated production rate(s) (e.g., number of trees/day, miles of road/day, etc.).
- Post-treatment conditions (e.g., stump heights on cut trees, treatment of trees and slash, etc.).
- Availability of qualified contractors in the local area and elsewhere.
- Other issues presently unknown.

The TMC and RPF will work with County staff to develop one or more contract templates to be used for soliciting bids or proposals. It is anticipated that multiple contracts will be issued for the work but the option of hiring one or a few

contractors to do the work will be available. The initial contract will be for the pilot project area. In preparation for going out to bid, the TMC and RPF will develop a list of potential contractors.

Upon release of requests for bids or proposals pre-bid meetings will be held at areas proposed for treatment. A formal process for asking and responding to questions may be conducted through Public Purchase (<http://www.publicpurchase.com/>).

Bid and/or proposal evaluation criteria will be developed by the TMC in collaboration with the RPF and County staff. Contracts will be issued based on defined treatment areas, e.g., miles of road, etc. rather than per tree costs to meet the requirements of the CDAA grant). Costs must include tree mitigation through cutting or other means, disposal of trees and slash (if applicable) and resource/asset protection and/or remediation of any incidental damage to private property. Contractors will be required to comply with all state, federal and local laws and regulations including procurement of permits, if necessary.

Implementation of Tree Mitigation

Right-of-entry forms with landowners will cover both the survey of dead and dying trees and the mitigation of those trees. Contractors retained to perform mitigation services will be supervised in the field by the RPF who will report to the TMC who will in turn report to the County. The TMC in collaboration with the RPF will monitor all aspects of contract compliance including adherence to provisions for protection and remediation of private property and invoicing.

Securing Reimbursement from OES

The TMC will prepare all required documentation to accompany County requests for reimbursement from OES. The format and frequency of invoicing by the County will be determined by the TMC and County administrative staff.

ASSOCIATED TASKS

Over the course of the project the additional duties of the TMC and RPF will include attendance at meetings of the State Tree Mortality Task Force as requested by the County, attendance at County Tree Mortality Task Force meetings, periodic reporting to the County Board of Supervisors and the public on progress,

coordination with state and federal agencies and public utility companies, identifying and evaluating potential project funding opportunities and monitoring the status of tree mortality outbreaks. These duties will be performed concurrently with tasks directly related to the planning and implementation of the project during year one.

IMPLEMENTATION SCHEDULE

During January-February, 2017 all preparations for conducting the tree survey and initiating the pilot project will be completed including consultation with other tree mortality counties, procurement of required software and hardware, development of a right-of-entry form and creation of a private property landowner data base. Right-of-entry forms will be mailed as soon as possible with the goal of beginning the surveys of dead and dying trees no later than March 1, 2017. Development of tree mitigation contracts will be an ongoing process. Bids or proposals for the first contract(s) in the pilot area will be solicited as soon as the tree survey is completed in that area. Subsequent surveys may be prioritized by area. It has not yet been determined if tree mitigation contracts will be issued on areas as surveys are completed or after all surveys are done. In any event, it is anticipated that the survey of dead and dying trees will continue until at least April 2017 with tree mitigation activities continuing for the remainder of the year or until available funding for the first year has been exhausted. Summarized below is the 2016/2017 implementation schedule by task.

TASK #	TASK DESCRIPTION	START DATE	COMPLETION DATE
1	<i>Pre-Work Conference</i>	<i>December 22, 2016</i>	<i>Done</i>
2	<i>Oversight of RPF and Evaluating End Use Options</i>	<i>January</i>	<i>December</i>
3	<i>Implement Mitigation Activities for Trees Threatening County Infrastructure</i>	<i>January</i>	<i>November</i>
4	<i>Coordination and Reporting to the County</i>	<i>January</i>	<i>December</i>
5	<i>Evaluate Potential Funding Opportunities</i>	<i>January</i>	<i>December</i>
6	<i>Monitor and Report on New Occurrences of Tree Mortality</i>	<i>January</i>	<i>December</i>