Before the Board of Supervisors
County of Placer, State of California

In the matter of: Adoption of the Placer County Tree Mortality - Hazard Tree Removal Plan

Resolution No.: 2016-185

The following Resolution was duly passed by the Board of Supervisors of the County of Placer at a regular meeting held September 27, 2016, by the following vote on roll call:

Ayes: DURAN, HOLMES, UHLER, MONTGOMERY

Noes: NONE

Absent: WEYGANDT

Signed and approved by me after its passage.

Chair, Board of Supervisors

Attest:

Clerk of said Board

WHEREAS, four years of extreme drought in California has led to an epidemic of bark beetle infestation in the forest which is causing pervasive tree mortality across the state, it is estimated that this epidemic has caused over 66 million dead trees in California, and this number continues to grow;

WHEREAS, the infestation is currently more severe in other portions of the state it is an evolving and expanding problem that is moving into Placer County causing the Placer County Board of Supervisors to proclaim a Local State of Emergency due to Tree

Mortality conditions on December 8, 2015, and to renew that State of Emergency every 30 days as required by the California Emergency Services Act, Article 14 §8630(c);

WHEREAS, there are several tools Placer County will employ in approaching removal of hazard trees that threaten public infrastructure and public safety.

BE IT RESOLVED, by the Board of Supervisors, County of Placer, State of California, that the Placer County Tree Mortality - Hazard Tree Removal Plan (HTRP), as set forth below, is hereby approved and adopted

The Hazard Tree Removal Plan

1. County Tree Mortality Task Force – Monthly Meetings Beginning March 2016
Role: Inter-Agency forum for information sharing/gathering and coordination of plans and resources. This monthly meeting will create the venue for county, city and special districts to discuss needs, concerns and resources with local, state, and federal regulators as well as the Fire Safe Alliance and Fire Safe Councils who have the necessary expertise and experience to offer guidance throughout the process.

Participants include:
Placer County Air Pollution Control District
Placer County Agricultural Commissioner
Placer County Department of Public Works - Road Maintenance
Placer County Department of Health and Human Services
Placer County Fire Safe Alliance
Placer County Fire
Placer County Office of Emergency Services
Placer County Sheriff's Office
Placer County Resource Conservation District
Placer County Water Agency
Placer County Planning Division
Foresthill Fire Protection District
Foresthill Fire Safe Council
Placer Hills Fire Protection District
Placer Hills Fire Safe Council
Western Placer County Fire Chiefs' Association
Eastern Placer County Fire Chief's Association

City, State, Federal & Other Stakeholders:
Bureau of Land Management
Bureau of Reclamation
Cal FIRE - Nevada-Yuba-Placer Unit
Cal Office of Emergency Services
Cal State Parks
Cal Trans
City of Auburn - Public Safety
City of Colfax
Sierra Pacific Industries

Sierra Nevada Conservancy
Pacific Gas &Electric
Union Pacific Rail Road
United Auburn Indian Community
United States Forest Service - Tahoe District

2. Core Planning Team
Role: Assist in developing operational plans, resource sharing, regulatory oversight and facilitation.

Participants include:
Placer County Office of Emergency Services
Placer County Department of Public Works - Road Maintenance
Placer County Fire Safe Alliance
Cal Fire/Placer County Fire
United States Forest Service - Tahoe District
Pacific Gas & Electric
Cal Trans
Cal Office of Emergency Services

The Core Planning team will consist of decision makers from each of the agencies listed above which will allow for the utmost efficiency when creating operational plans county wide.

3. Sub-Groups
Role: Communication, coordination and resource sharing

Participants include:
Homeowner's Associations
Community water companies
Local timber/tree falling companies
Local Lumber Mills

These sub groups will be short lived and created on an as needed basis.

4. Plan Development & Approval Process for Possible State Funding
In accordance with the California Disaster Assistance Act, (CDAA) Cal OES requires each tree mortality impacted County, City or Special District to submit a HTRP and receive approval before any possible CDAA funding reimbursement for expenses may take place. Staff has been working closely with Cal OES and Cal Fire towards completion of such a plan and this document details this plan. However, this plan captures a dynamic and iterative process and requires exceptional flexibility in implementation as tree mortality is an ongoing process.

This HTRP has been submitted to Cal OES in draft form to ensure the plan contains all the pertinent details and information required for approval. Placer County, in accordance with State direction, will use the State Right of Entry Permit in cases where private property owners are impacted. In most cases we anticipate this will be along

County owned roads and infrastructure where dead trees situated on private property could impact public safety and/or present a hazard. Once your Board has provided direction and/or approval for this HTRP it will be submitted to Cal OES as a Final version.

5. County Incident Action Plan

In alignment with the State of California Incident Action Plan, the County has built a local Incident Action Plan that fosters interagency collaboration, cooperation and coordination. Several Working Groups have been established within the County Incident Action Plan. Working Groups are: Mapping and Data Collection, Prescribed Fire and Materials Disposal, Public Outreach and Information, Permits and Regulations, Resource Allocation and Funding, and Material Storage and Utilization. Other groups may be established as needed.

6. Order of Magnitude Scope & Cost

Initial estimates of the number of dead and diseased trees to be removed due to their threat to County-owned infrastructure (e.g. County roads, buildings and key infrastructure) have been prepared by staff and submitted to Cal OES. However, based on the dynamic and evolving nature of this problem staff continues to evaluate and refine this estimate. It is important to note that trees marked for actual removal must come at the recommendation of Registered Professional Foresters (RPFs) or Certified Arborists to qualify for CDAA reimbursement funding.

Initial estimates by County Department of Public Works and Facilities Road Maintenance Division staff (Road Division) place the number of trees that may need to be removed along County owned and maintained roads, not including Federal or State roads, at approximately 1,834. With a projected cost per tree of $1,700, this would equate to $3,117,800. It is important to note that this is an evolving problem and more trees are projected to die throughout 2016 and into 2017 as well. As a general planning guideline, allowing for another 1,000 trees to be removed from Cal FIRE designated High Hazard Zones within the County that impact County owned and maintained roads and other critical infrastructure would cost an additional $1,700,000.

In fact, the local Cal FIRE Unit Forester has observed wide divergence in tree mortality rates both over the last three years and across various areas of the County. What is virtually certain is that tree mortality rates will continue to rise across the County as the problem spreads across California. For this reason the Cal Fire Unit Forester recommends applying a growth factor of 30% to reflect the high probability of additional trees dying and/or becoming diseased in the months/years ahead and thus needing to be removed. Application of a 30% growth factor to the original base estimate of 1,834 dead trees would place the total number of dead trees needing removal to 2384. Using the $1,700 per tree estimate, total costs would be $4,052,800.

What would it cost to fall, remove, and clean-up debris for 2384 trees? The answer is that it depends. The cost will be much less when trees are found in a forest like environment where they could be easily felled, limbed, and skidded to a road side and loaded as full size logs and shipped directly to their intended destination. The cost will be higher in residential situations where more trees will need to be sectioned down

versus fallen and loaded using smaller equipment, versus skidded to roadsides, and hauled away in smaller loads. Clean-up of debris will vary but will be costly in either environment to ensure properties are left in a clean, low fuels/fire threat condition. After discussing potential costs with a local arborist and local forester, a planning figure of $1,700 per tree will be used to establish an initial order of magnitude cost. Again, removal of 1834 trees at $1,700 each would place the potential cost for trees to be removed related to County-owned infrastructure at $3,117,800.

7. Share of Cost/Funding

Under CDAA, assuming Placer County is CDAA approved, the State will reimburse 75% of all eligible costs with the remaining 25% share to be borne by the responsible local government. Therefore, given the scope and cost outlined above, the share of cost for removal of trees threatening County owned roads and infrastructure alone would be as follows:

State	$2,338,350 (75%)
County	$779,450 (25%)
Total	$3,117,800 (100%)

How would the County fund a $779,450 share of cost? The answer would include some combination of the following potential sources:

- Pursuit of federal funding to reduce the local match requirement
- Pursuit of grants (local and federal)
- Initiating a fee for participating land owners
- Use of the county's General Fund

It should be noted that these costs are expected to be borne over a two year period at a minimum as the drought is not over, more trees are expected to die and/or become diseased and given the time it will take to remove and dispose of the large quantity of the related material.

8. Plan Implementation

With Cal OES approval of the County's Tree Mortality Removal Plan, staff will return with additional details on how it would like to proceed in implementing the Plan. This could include a professional services agreement with a local firm that specializes in such work and establishment of an initial budget to provide base funding for all work anticipated to occur in fiscal year 2016-17.

9. Education & Outreach

An important role County OES fulfills is education and outreach with the public. To accomplish this, OES will work with the county's Public Information Office to develop a communications plan to most effectively inform the public. Staff plans to meet with and provide guidance to other local jurisdictions as needed. As the number of dead and dying trees continues to grow, outreach and education need to be dynamic to quickly address changing conditions.

Options for communication include:

- Develop and regularly update the county's tree mortality website

- Regularly use social media to disseminate messaging
- Engage media to deliver important messaging
- Co-opt materials developed by other agencies
- Assist the public in finding resources to address dead and dying trees on private property
- Provide information on tree removal by utilities and government entities
- Conduct community meetings as needed
- Make presentations to municipal advisory councils as needed
- Address community service groups and local school districts
- Reminding the public of fire safety
- Provide frequently asked questions online and in print
- Provide informational brochures/handouts
- Maintain links off the county page to essential sites
- Make presentations to local service clubs
- List licensed tree removal companies and licensed foresters and arborists.

10. Role of all Local Governmental Agencies

Each local governmental agency must apply for CDAA funding independently of the County and is responsible to develop its own plans based on what its governing Board desires to accomplish within its jurisdictional authority. Local governments include Counties, Cities, Special Districts and Tribes. It is important for the Board and the community to understand that the application for CDAA funding, and the way in which each agency implements their plan, is between that agency and Cal OES.

Tribal governments within California are not eligible to receive CDAA funding directly. However, should a local tribal government need assistance with identifying, removing, storing, or disposing of dead and dying trees in response to a threat to the public right-of-way and/or public infrastructure, and the assistance is requested from an eligible applicant (i.e. county, city), that applicant may seek reimbursement for eligible activities performed on behalf of the tribe.

While each individual local government agency must independently apply for CDAA funding and develop their own specific plans, Placer County will work cooperatively with other local governmental agencies within the County on the sharing of resources and planning efforts in order to provide for the successful coordination of cost efficient hazard tree removal projects that protect the public and prevent public infrastructure and asset damage.

11. Hazard Tree Removal on County Owned and Maintained Properties

Placer County is in the process of identifying and preparing to remove dead and dying trees due to drought and historically high bark beetle infestation levels. Placer County Department of Public Works and Facilities is tasked with the identification and removal of dead and dying trees. As the number of dead and dying trees continues to increase, the County has developed a process to identify dead and dying trees that threaten the County's infrastructure, assets and public safety, and will work with the appropriate agencies and resources including, but not limited to, those identified in this HTRP, for hazard tree removal and processing This process continues as the number of hazard trees has greatly increased. Public safety and continuity of essential services (power,

water, communications, roads, etc.) are of primary concern. For example, since this problem began, 14 people have been killed statewide from falling dead trees. Therefore, County resources will be focused in the following areas:

- County Maintained Roads
- County Facilities, Buildings and Grounds
- Other Key Infrastructure

The County will work cooperatively with utility, communication and transportation agencies that have infrastructure located within the County on the sharing of resources and planning efforts in order to provide for the successful coordination of cost efficient hazard tree removal projects that protect the public and prevent public infrastructure and damage to assets.
In state designated High Hazard Zones, Placer County Department of Public Works and Facilities will assess all County owned and maintained roads, facilities and key infrastructure for dead and/or dying trees due to drought and bark beetle infestation within 200 feet of said roads, facilities, and key infrastructure. Registered Professional Foresters (and/or licensed Arborists) will inspect trees for successful bark beetle attack and designate trees for removal. Visually dead trees (brown from top to bottom) will be marked and pictures taken to document mortality. Photographs will be taken of all dead trees and a GIS mapping system is being developed utilizing GPS locators for each worksite. The Roads Division will assess all County roads with the assistance of a Registered Professional Forester and/or Arborist and will be prioritized and categorized as outlined below:

- Priority 1 – Dead or dying trees in high hazard zones that threaten power lines, roads, and other evacuation corridors, critical community infrastructure and other existing structures.
- Priority 2 – Incidental vegetation such as shrubs that restrict access for safe and efficient removal of the dead and dying trees in priority 1 above.

12. Hazard Tree Removal on Private Property

Hazard trees located on private property that threaten public Right of Way or Public Infrastructure, will be assessed and removed with landowner approval only once impacted landowners have signed a Right of Entry Permit. By signing the Right of Entry Permit, landowners will be granting access and entry to their property to the State of California, the County of Placer, and their agents, officials, employees, and/or volunteers, contractors and subcontractors, subject to all license, easements, encumbrances, and claims affecting the Premises. By signing the Right of Entry Permit, the owner is granting County a right-of-entry to the property for the purpose of inspecting the premises for dead and/or dying trees, testing materials on the premises, removing and/or clearing trees, hauling and/or disposing of trees, subject to the terms set forth in the Permit. No inspection, removal or clearance of trees will take place until Permit is signed. Owner also agrees and understands the County and/or its agents may sell the felled trees and hereby waives any and all right, actions, claims, in law or equity as to the value of the said trees in exchange for the services provided pursuant to this Permit. The county will not be requesting reimbursement from Cal OES for the removal

of trees from private property that do not threaten the public Right of Way or Public Infrastructure.

13. Removal and Disposal of Trees, Slash and Wood Products

Removal and disposal of wood products is one of the most difficult aspects of the hazard tree removal process as resources are very limited and lumber mills and licensed timber operators are operating at maximum capacity now with no extra capability to absorb beetle infested and degraded timber. Moreover, the industry's ability to absorb beetle infested and degraded timber is limited by marketplace acceptance of the products produced by this type of timber. County OES has coordinated with the Sierra Pacific Industries Mill in Lincoln, CA and is exploring options for future opportunities to make use of this product should market conditions change in the future. Discussions are also in process with the Rio Bravo biomass facility in Rocklin, CA to determine if this product can be used for energy conversion. However, due to regulatory requirements Rio Bravo in Rocklin biomass operations are anticipated to decrease this fall. County OES is also coordinating with the Western Placer Waste Management Authority for feasible options to deal with unprecedented amounts of this wood product. Potential options include accepting more dead trees into the landfill, and exploration of market uses such as landscape-grade wood chips and animal bedding. We anticipate this disposal problem to be a continuing challenge. The County is also considering contracting with a company who specializes in all aspects of this hazard tree removal.

14. Volunteer County Inmate Crews

County staff has met with Cal Fire representatives and the local Sheriff's Office in an effort to contract for use of volunteer inmate crews (low level & non-violent offenders only) from the Placer County Jail. Placer County has proven track record of success using volunteer inmates with our jointly managed Chipper program. These crews offer a cost effective manner in which to provide labor for removing small trees, limbing trees that have been felled, bucking up logs, debris clean up, and feeding chippers, and potentially other associated tree removal activities. This also provides valuable work experience for those inmates who volunteer to do this work.

15. Request for Assets

Per the Governor's Executive Order on October 30, 2015, County staff is working with the State Tree Mortality Task Force to bring in heavy equipment such as commercial chippers, masticators, and air curtain burners that can be made available for use in the County. Placer County has been added to the list of 10 Counties that qualify for this type of heavy equipment assistance and we anticipate that equipment will begin to flow into the County as it becomes available for use from other more impacted Counties.

16. Potential Revenues Generated by Wood Product

Any revenues generated from the sale of wood products salvaged may be used to reduce the claim to Cal OES for CDAA. As outlined in the Right of Entry Permit, any and all revenues generated from wood product salvaged from private property is waived, by the landowner, in exchange for the services provided pursuant to the Permit signed by the land owner.