

# Wildfire Vegetation Management *and* Safe Healthy Forests



California Natural Resources Agency Deputy Secretary for Forest and Wildland Resilience Jessica Morse greets Park District fire crew at an active vegetation clean up of Sudden Tree Die-off in Reinhardt Redwood Regional Park, Oakland.

## The East Bay Regional Park District

has a long relationship with annually managing vegetation in the Wildland-Urban Interface (WUI). In 1991, the tragic Oakland hills fire – then the most destructive fire in California history – resulted in \$1.5 billion in initial damages, many lives lost and over 3,000 homes destroyed. Park District staff were the first responders to this incident – risking their lives to fight the fire. Since then, wildfires have only continued to increase in their frequency and intensity. Investing in vegetation management now will allow for long term cost savings, reduced community displacement and the potential to save more lives. Using the best available science, this investment will also protect habitat, water supply and water quality.



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**M**inimizing the risk of wildfire on over 125,000 acres of urban-adjacent wildlands is among the highest priorities for the East Bay Regional Park District. The Park District's collaboration with the Federal Emergency Management Agency (FEMA) and California Governor's Office of Emergency Services (Cal OES) has helped provide significant ongoing funding for the District's current forest and vegetation management practices. This work has enabled the Park District to significantly reduce flammable wildland vegetation and the potential of a catastrophic fire event. Annually, the Park District invests about \$3 million of local,

state and Federal funding toward managing and diminishing hazardous vegetation in the East Bay hills. As a result of this work, the risk of catastrophic fire has been greatly reduced. For example, two separate fire events in 2017 and again in 2021 near Grizzly Peak in Berkeley burned into a managed forest on Park District property. Crews were able to quickly respond, put the fires out and avoid serious damages. This was possible because of previous vegetation treatment directed by the District's [Wildfire Hazard Reduction and Resource Management Plan](#).

## OTHER WILDFIRE PROTECTION CONSTRAINTS

- It took regulatory agencies eight years to approve the Park District's Wildfire Hazard Reduction and Resource Management Plan. Because of a highly specified and intense process, it remains a challenge for other agencies to receive the necessary permits to conduct vegetation management in the East Bay hills – making the Park District the only agency in the East Bay currently with a plan. Cutting the “green tape” for regulatory agencies to approve vegetation management should be a state priority.

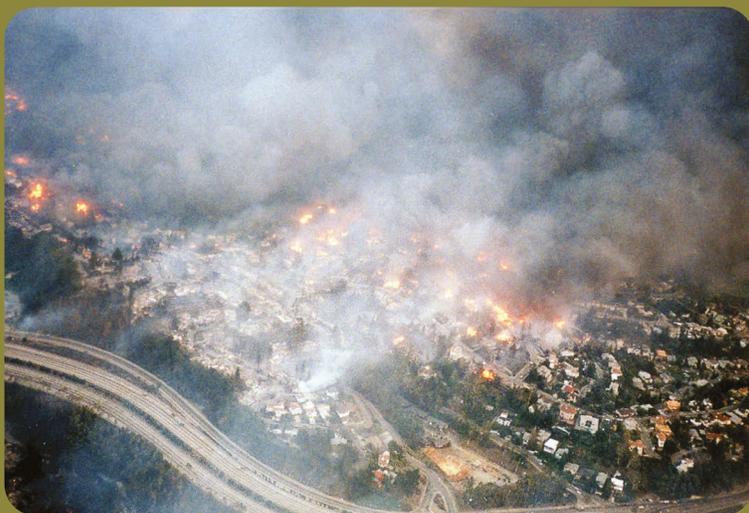


Left to Right: EBRPD Resource Analyst Kristen Van Dam, Fire Chief Aileen Theile, and Bay Area Tree Specialist owner Richard Smith planning flammable vegetation removal.

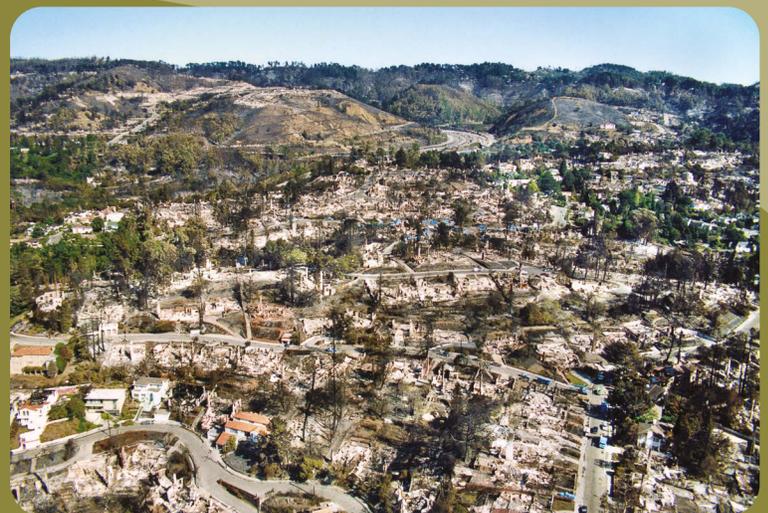


A threatened red-legged frog.

- Managing natural resources for endangered and threatened species can create challenges regarding where and when vegetation management can take place.



Homes burning in the 1991 Oakland Hills Firestorm.



Burnt homes after the 1991 Oakland Hills Firestorm.

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*A Park District firefighter begins the removal of a dead tree.*



*Aerial views of pine and redwood die-off.*

## TREE MORTALITY ELEVATED WILDFIRE RISK

The East Bay Regional Park District is currently the only agency in the East Bay with an environmentally approved vegetation management plan which allows for immediate tree removal. Since October 2020, the Park District has been impacted by a sudden onset of tree mortality and dieback, affecting eucalyptus, acacia, bay and pine. This has led to an increase in standing dead trees of various species and sizes, and other hazardous conditions in the Wildland-Urban Interface of the East Bay hills. The Park District has identified over 1,500 acres of tree mortality on its parklands. Nearly all listed acres are within State Responsibility Areas (SRA) of the Santa Clara Unit in Battalion's 4 and 6. The wildfire risk presented by vegetation mortality is substantial. Upright dead and dying trees are major fire hazards as their airborne embers can spread widely.

Cost of flammable vegetation treatments, reduction and tree removals is in the multiple millions. The Park District is accelerating this work, but more funding is needed to address this public safety concern. In addition, further analysis is needed aimed at understanding the full extent and best approach for addressing the tree mortality caused by drought and climate change.

The sudden tree mortality issue presents a unique pilot project opportunity for the Park District in the face of a changing climate. The Wildfire Hazard Reduction and Resource Management Plan enables the Park District to immediately address this drought-related emergency and reduce vegetation in real time. The Park District is also interested in exploring tools for removal, disposal via biomass treatments and reestablishment of a healthy, natural habitat.

An underlying cause for the tree mortality has not yet been scientifically confirmed, but theories include impacts of drought, extreme heat and/or newly introduced pathogens due to climate change. Currently, this statewide issue is being addressed on a regional level by Park District specialists – in coordination with the United States Forest Service (USFS), CAL FIRE, UC Berkeley and other agencies. Research and monitoring is needed to mitigate this statewide concern. State and Federal governments have an obligation to take more of a leadership role, provide funding to eradicate the vegetation and identify long term solutions as the climate changes. Removal of the vegetation may need to be performed carefully to avoid spreading pathogens or any other disease. The Park District seeks support from Congress and the State Legislature to fund the removal of the vegetation expeditiously.

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## WILDFIRE RESPONSE

The role of firefighters across the state is critical for the safety of all Californians. The East Bay Regional Park District's Fire Department is an important component of overall parkland operations, as well as the region's public safety. This is especially significant considering many of the Park District's lands are in the Wildland-Urban Interface. The Park District

is uniquely situated to fight fires with wildland scale equipment and infrastructure – including helicopter water dropping capability. In 2020 alone, the District completed 223 bucket drops providing over 24,238 gallons of water to help extinguish wildfires. Continued resources are needed for fire suppression equipment, as well as mitigation.



*EBRPD firefighters battle a wildfire.*



*EBRPD and CAL FIRE extinguish an urban interface wildfire.*



*EBRPD's Eagle 7 helicopter drops water on a wildfire.*

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## GRAZING AND GRASSLAND MANAGEMENT

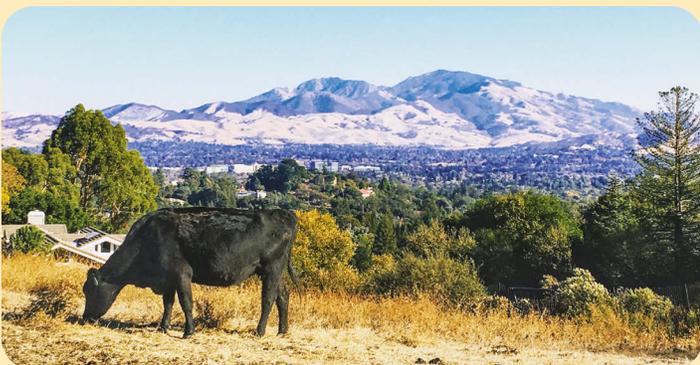


Photo: Aaron Jaeger

**Grazing mitigates wildfire near homes bordering Las Trampas Wilderness Regional Preserve, San Ramon.**



Photo: Shireen Kelle

**Cattle, sheep and goats provide effective vegetation management in Park District grasslands**



Photo: Michael Short

**Reestablishment of native, drought tolerant plant species.**

The District manages over 80,000 acres of grasslands. Many open space agencies have similar conditions, but funding for this type of flammable vegetation reduction is less available. Common grassland management techniques include grazing, prescribed burns and manual treatments. Grazing is one of the most effective means of vegetation management for wildfire mitigation. Goats can graze in terrain that is difficult for mowers and even cattle to reach. However, goat grazing is costly at \$3,000 – \$5,000 per acre. Additionally, grazing with cattle, goats and sheep requires more cistern water systems in remote areas. When grassland fires occur, they have the damaging effect of harming the grazing animals, fences and water systems which are not typically accounted for in the “costs” of wildfire impacts. To effectively continue grassland management with grazing, these costs should be reimbursed from emergency funding sources.



Photo: Calli Godley

## ECOLOGICALLY SENSITIVE VEGETATION MANAGEMENT AND RESILIENT NATURAL HABITAT

The Park District is guided by an environmental ethic in all actions. When conducting vegetation removal to protect against catastrophic wildfires, the removal is done in a manner which helps promote the regrowth of native, drought tolerant, less fire-prone species in a biologically diverse habitat. When possible, the Park District’s Stewardship team will intentionally reestablish new growth of a healthy, natural habitat which is more resilient to potential wildfire. This reestablishment is predominantly funded by the Park District’s Measure FF local tax measure. Federal and state funding for this type of vegetation reestablishment should be more readily available. Currently, FEMA and CAL FIRE grants focus primarily on the removal of dry vegetation, but omit focus on establishing a resilient habitat. The Park District is coordinating with partner agencies to encourage a stronger focus on healthful habitat reestablishment for a more resilient California.

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**East Bay**   
Regional Park District

*Healthy Parks Healthy People*

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*A healthy redwood forest,  
Roberts Regional Recreation Area, Oakland*