



**MOUNTAINS RECREATION & CONSERVATION AUTHORITY**

Los Angeles River Center & Gardens  
570 West Avenue Twenty-Six, Suite 100  
Los Angeles, California 90065  
Phone (323) 221-9944 Fax (323) 221-9934

February 14, 2020

Chairperson Irma Muñoz  
c/o Rorie Skei, Chief Deputy Executive Director  
Santa Monica Mountains Conservancy  
26800 Mulholland Highway  
Calabasas, California 91302

**Proposition 68 Competitive Grant Application –  
Vegetation Management, Fire Prevention and Resilience projects**

Dear Chairperson Muñoz and Conservancy Members:

I am please to present the enclosed application for a grant to fund Vegetation Management, Fire Prevention and Resilience projects. The Mountains Recreation and Conservation Authority (MRCA) request a grant in the sum of \$2,000,000 from the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018 (Proposition 68). The MRCA's Governing Board approved this application on February 5, 2020.

The proposed grant would fund the removal of hazardous flash fuel vegetation, along with other activities, to reduce wildfire risk, protect watersheds, and promote watershed health. MRCA operates and manages dozens of park sites, hundreds of individual APN locations, and thousands of acres of open space located through out Los Angeles and Ventura Counties. The systematic reduction of flash fuel vegetation at these sites directly reduces wildfire risks, protects watersheds, and promotes watershed health.

Please refer to the enclosed materials that describe the proposed grant and how it fits the Conservancy's Evaluation Criteria. If you have any questions regarding this, please contact me at (323) 221-9944, ext. 117.

Sincerely,

Cara Meyer  
Deputy Executive Officer

Proposition 68 Competitive Grant Application  
Vegetation Management, Fire Prevention and Resilience Projects  
Mountains Recreation and Conservation Authority

**SCOPE OF WORK / PROJECT DESCRIPTION**

The Mountains Recreation and Conservation Authority (MRCA) operates and manages dozens of park sites, hundreds of individual APN locations and thousands of acres of open space located throughout Los Angeles and Ventura Counties. The impacts of climate change and more extreme weather conditions have created a new normal for a fire prone landscape, and there is now an elevated risk of wildfire year-round. Resilience to fire and its negative effects can be increased through thoughtful capital projects and proper vegetation management, and these measures also prevent damage from fires. These activities protect watersheds and promote watershed health.

The proposed \$2,000,000 grant would be used for projects that increase parkland resilience to the effects of fire, including activities to manage vegetation and reduce flash fuel loads to decrease wildfire risk and protect watersheds, protect habitat, improve air quality, and promote watershed health. These measures also are expected to reduce the probability of catastrophic fires occurring. This work is necessary to protect homes, businesses, and other public and private structures from wildfire.

Proposition 68 outlines priorities and strategies to invest in measures that will help mitigate the effects of climate change, protecting natural resources for future generations and ensure clean, safe, and reliable drinking water sources. The proposed project aims to conserve water and achieve greenhouse gas reduction targets. Wildfire prevention efforts help protect plant and animal species and their fragmented habitat found in urban and open space areas of Southern California. This project will result in the restoration and protection of important species and habitat throughout the region.

Much of the parkland managed by MRCA is on the wildland-urban interface, which results in a huge burden of fuel removal and vegetation management. Proper vegetation management gives firefighters space to defend structures and other resources, and can reduce the intensity and spread of fires that do ignite. Reducing the amount of available fuel and creating defensible space makes it more feasible to protect structures and other public facilities.

Proposed tasks include removal of weeds, dry and dead materials, invasive species, and other hazardous flammable vegetation. Invasive species are targeted for eradication due to their ability to dramatically increase fuel loads and degrade wildlife habitat. Fuel modification is executed through the removal of dense, highly flammable and dead vegetation or thinning of hazardous combustible vegetation. Plant diseases, insect infestations and invasive species all pose significant threats to native vegetation, water supplies, and wildlife habitats, and can contribute to a wildfire.

The rate and amount of fuel removal varies, depending on plant growth and other factors. Fuel modification costs have consistently risen during the last several years. This is in part due to mandated wage increases and other increased labor costs, as well as increased labor hours due to local prohibitions on the use of herbicides. The use of goats for brush removal is appropriate on some lands, however a surge in popularity has

Proposition 68 Competitive Grant Application  
Vegetation Management, Fire Prevention and Resilience Projects  
Mountains Recreation and Conservation Authority

increased the cost of this method as well. A trailing effect of the 2018 Woolsey fire is a noticeable increase in wild mustard growth and vigor, including multiple growth spurts in one season. In 2019 some areas required two and three rounds of vegetation removal.

Local parklands also continue to have a large number of dead, diseased and failing trees that may require removal for fire prevention. In addition to trees affected by the Woolsey fire that are either not coming back or require major pruning for long-term health, many trees continue to be affected by the sustained drought. The extended years of dry conditions have exacerbated insect infestations and weakened root systems. The removal of these trees is costly, due to their size, maturity, and remote locations, but is necessary due to the fire hazard they pose, risks of injury to people and property, and the possibility of spreading infestations to nearby trees. Some local jurisdictions require MRCA to procure arborist evaluations, pay significant permit fees, and delay work for bureaucratic approvals with any tree removal.

Steep hillsides, common in Southern California watersheds, require protection from erosion. Reestablishing native plant communities that are better adapted to the ecology of the area is imperative as a means to increase slope stabilization. Reducing wildfire risk provides multiple direct and indirect benefits including reducing sediment, ash, and organic matter from entering streams that drain into our watersheds thereby limiting creek sedimentation and erosion and encouraging ground water recharge.

The lands subject to vegetation management are located in undeveloped mountain areas and are generally not in or adjacent to a disadvantaged community. Reducing wildfire risks does benefit the entire Los Angeles metro area, including disadvantaged communities, by preventing air pollution from smoke and the water quality degradation that can follow a large fire. The protection and restoration of both natural and developed resources supports ongoing public safety efforts, and helps keep emergency resources available to all areas. Additionally, managing vegetation within trails and parks protects its continued use and enjoyment by the public. These management efforts are more cost effective than emergency responses to a catastrophic event.

California's efforts to meet goals mandated by the Global Warming Solutions Act ("AB 32") to reduce greenhouse gas emissions to 1990 levels by the year 2020 assumed no net emissions for wildland ecosystems by 2020, underestimating the potential of wildfires as a considerable greenhouse gas source. Findings are now indicating that burned, or dead, vegetation releases carbon into the atmosphere as net emitters and not the carbon sinks we rely on them to be. This may further exacerbate climate change and its impacts. Events such as the 2018 Woolsey fire that are stronger, more damaging, and compounded by current drought conditions, underscore the need to periodically perform vegetation management.

This grant would help to serve the approximately 70,000 acres of MRCA-managed property prone to wildfire risk. This in turn would effectively prevent approximately 10,549 metric tons of carbon dioxide (CO<sub>2</sub>) from being released into the atmosphere. Fuel modification by brushing holds the CO<sub>2</sub> emissions within the carbon sinks of plant material

Proposition 68 Competitive Grant Application  
Vegetation Management, Fire Prevention and Resilience Projects  
Mountains Recreation and Conservation Authority

and prevents their release into the atmosphere. Refer to Appendix A for carbon emissions calculations, including calculations for carbon monoxide, methane, nitrous oxide, and nitrogen dioxide.

Protection and restoration activities covered under this grant application will be performed by MRCA staff as well as outside contractors. Contractors are used where it is more cost efficient, considering difficult topography and the compressed window of time in which vegetation management must be performed. Specialized suppression equipment to be purchased at reasonable cost will include, but is not limited to, chainsaws, chippers, chemical spraying equipment, personal protection equipment, and safety gear. The funds may also be directed toward resiliency improvements to capital assets, ensuring greater longevity and usability for existing structures and public facilities. Monitoring and reporting on the progress and effectiveness of the project will occur via written project status reports. After the project's completion, photographs will be provided upon request.

Increasing the resilience to fire on these parklands will be accomplished through a straightforward approach to vegetation management, paired with efficient equipment and materials. The activities under this grant will protect watersheds from devastating wildfire risk, ensure the safe enjoyment of trails and parks for public use, and reach long term goals for water conservation and greenhouse gas reduction.

### **BUDGET**

See attached budget. No matching funds are available for this project.

### **TIMELINE**

The proposed project will be completed approximately 1 year after approval. Timeline may vary depending on the amount of rainfall, erosion, any additional fire events, and vegetation growth.

### **RESPONSES TO EVALUATION CRITERIA**

PV1. Project achieves 80001(b)(3)(4) by providing urban recreation and protecting or restoring natural resources.

The proposed grant will protect and restore natural resources by preventing wildfire, reducing the intensity and spread of small fires, restoring native ecosystems, and reducing or preventing erosion. The removal of dead and diseased trees will prevent the spread of infestations throughout natural areas, increasing resilience.

PV2. Project achieves 80001(b)(5) by providing workforce education and training, contractor, and job opportunities for disadvantaged communities.

Proposition 68 Competitive Grant Application  
Vegetation Management, Fire Prevention and Resilience Projects  
Mountains Recreation and Conservation Authority

By preventing loss and damage to park infrastructure, the project will protect the current programs that promote diversity and inclusion in public lands. These opportunities could be reduced if park operations are compromised. MRCA recruits staff from a variety of sources, including job training entities such as the Los Angeles Conservation Corps, training programs such as the Rio Hondo Fire Academy, and outreach to local job centers in disadvantaged communities. A portion of work will be conducted by contractors selected through a competitive bid process, and job training programs are eligible to bid. Any public information about the project and its effects will be multilingual as appropriate.

PV3. Project achieves more than one of the Conservancy's Strategic Objectives.

The proposed project furthers the following Conservancy Strategic Objectives:

- *Implement the Rim of the Valley Trail Corridor Master Plan.*
- *Implement the Los Angeles County River Master Plan.*
- *Implement the San Gabriel and Los Angeles Rivers Watershed and Open Space Plan.*
- Expand Education, Public Access, and Resource Stewardship Components in a Manner That Best Serves the Public, Protects Habitat, and Provides Recreational Opportunities. The primary purpose of the project is to improve public access to provide new and increased opportunities for visitation, recreation, programs, services, and activities for a variety of park users and to contribute to more enjoyable user experiences. This will also help to increase resource stewardship and educational/interpretative capabilities.
- Develop long term capital improvement and maintenance plans.

PV4. Project achieves more than one of Common Ground guiding principles.

The proposed project furthers the following Common Ground guiding principles:

- *Improve Access to Open Space and Recreation for All Communities.*
- *Promote Stewardship of the Landscape.*
- *Encourage Multiple-Objective Planning and Projects.*
- *Involve the Public Through Education and Outreach Programs.*

CV1. The project implements public safety practices by reducing wildfire risk.

The primary goal of the proposed grant is to reduce wildfire risk. The protection and restoration of both natural and developed resources supports ongoing public safety efforts. Managing vegetation within trails and parks protects their continued use and enjoyment by the public and will increase fire resilience. The crews that will implement the project have regular safety trainings and briefings.

CV2. The project implements fuel treatment projects to reduce wildfire risks, protect watersheds tributary to water storage facilities, and promote watershed health.

The proposed grant is a fuel treatment project that will accomplish the stated goals. Benefits will accrue to the watersheds in general, and to all downstream water storage facilities that exist.

Proposition 68 Competitive Grant Application  
Vegetation Management, Fire Prevention and Resilience Projects  
Mountains Recreation and Conservation Authority

CV3. The project substantially restores a site by removal of exotic species to reduce wildfire risk and promote watershed health.

The primary activity proposed is the removal of exotic species to restore native vegetation and protect watershed health.

CV4. The project substantially restores a site by reestablishment of native species to reduce wildfire risk and promote watershed health.

A primary goal of the project is to reestablish native species to increase fire resilience and prevention, which will promote watershed health. The vegetation management activities will remove competition created by exotic invasive plants, helping native plants and ecosystems to thrive.

CV5. The project would improve or support regeneration of important native vegetative cover on slopes near a stream or river, which if substantially disturbed may contribute to flood, erosion, creek sedimentation, or reduced groundwater recharge.

A goal of the proposed project is to support native vegetative cover. A portion of the work proposed will occur on slopes near streams, on soil that would be prone to erosion without proper vegetative cover. The removal of invasive exotic species will help native vegetation thrive. By preventing wildfire, the proposed grant will also prevent the erosion of sediment, ash, debris, and organic matter into streams.

CV6. The project will provide benefits to multiple resource areas including water, recreation, habitat, and interpretation of natural resources.

The systematic reduction of flash fuel vegetation provides multiple direct and indirect benefits: Vegetation management reduces sediment, ash, and organic matter from entering streams which drain into our local watersheds; limits erosion and creek sedimentation; reduces the amount of invasive species in our environment thereby protecting native habitats; and protects access to public facilities within parklands. Protection of park structures will help continue to promote stewardship of natural resources and preserve access to these tools and education.

CV7. Completion of the project would assist a government agency in fulfilling a water resources protection or master land protection plan.

The proposed project furthers the following Conservancy Strategic Objectives:

- Implement the *Santa Monica Mountains Comprehensive Plan*
- Implement the *Rim of the Valley Trails Corridor Master Plan*
- Implement the *Greater Los Angeles County Integrated Regional Watershed Management Plan*
- Develop long term capital improvement and maintenance plans

The *Santa Monica Mountains Comprehensive Plan* notes that fire is a natural and ecologically important part of the Santa Monica Mountains, and further notes that suppression efforts over a long period of time could increase the intensity of subsequent

Proposition 68 Competitive Grant Application  
Vegetation Management, Fire Prevention and Resilience Projects  
Mountains Recreation and Conservation Authority

fires. By removing flammable vegetation around structures and other resources, the proposed project will eliminate ignition sources in areas where suppression is necessary.

A portion of the work will be completed within the boundaries of the Santa Monica Mountains National Recreation Area, which is jointly managed by the National Park Service, California State Parks, the Santa Monica Mountains Conservancy, and MRCA. The National Park Service's *General Management Plan for the Santa Monica Mountains National Recreation Area* states that a Mission Goal for Resource Condition is to "Manage fire throughout the recreation area to mimic natural fire regimes where feasible and reduce the threat of wildfires." Actions that were common to all the alternatives studied in the plan include:

- Manage fire to minimize landscape disturbance; and
- Areas temporarily disturbed during construction would be recontoured and revegetated with appropriate native plant species by a qualified biologist, and appropriate fuel management and fire suppression zones would be maintained around developed structures.

The activities proposed for Fire Resilience, Prevention and Vegetation Management would contribute to accomplishing these goals and objectives in the *General Management Plan*. While not solely a water resources or watershed plan, the GMP is a holistic approach to parkland management and it does expressly consider protection of water resources in many ways.

CV8. The project employs new or innovative technology or practices.

MRCA is a member of the Santa Monica Mountains Fire Safe Alliance – a coalition of public agencies, departments, and members of the public to protect natural areas and communities. Its expert resource protection workforce maintains constant communication with Los Angeles County, City of Los Angeles, and Ventura County Fire Departments, and California State Parks and the National Park Service, utilizing the most up to date communication practices.

CV9. The project adds visitor-serving amenities, accessibility, and public safety improvements to public parkland with multiple ecosystem benefits.

Reducing wildfire risk is a public safety improvement for public parklands. Additionally, removing dead vegetation improves public safety by removing hazardous fuels that not only create a risk of wildfire, but risks of injury to people and property. Multiple ecosystem benefits include the reduction of invasive species, preventing erosion into surface waters, protecting tree canopy, improving air quality, restoring native habitat, and reduced risk of wildlife deaths due to wildfires.

CV10. Project will benefit specially protected species pursuant to the California Wildlife Protection Act of 1990.

In June of 1990 voters of California approved Proposition 117, the California Wildlife Protection Act, prohibiting the sport hunting of the California Mountain Lion and declaring them to be a specially protected species. The local population of mountain lions requires

Proposition 68 Competitive Grant Application  
Vegetation Management, Fire Prevention and Resilience Projects  
Mountains Recreation and Conservation Authority

large areas of undisturbed habitat to thrive. Vegetation management reduces the possibility of the destruction of this habitat due to wildfire or erosion.

I1. Applicant has proven that implementation of the project is feasible.

MRCA has completed similar projects in past years, and the proposed project is feasible. The MRCA staff has many years of experience and expertise to undertake these tasks, and vendors are vetted for their experience and capabilities before contracts are awarded.

I2. Applicant has financial capacity to perform project on a reimbursable basis.

MRCA has the financial capacity to perform this project on a reimbursable basis. MRCA has been implementing capital projects on a reimbursable basis for many years and anticipates reimbursable payments in our budgets. MRCA also maintains a line of credit that can be drawn upon in the event of an extended delay.

I3. Applicant, or active project partner, has successfully completed multiple projects of similar size and scope.

MRCA has completed similar efforts annually since the agency was founded in 1985.

I4. The project is a partnership between two or more organizations and each organization has committed to contributing toward project implementation.

MRCA is a local public agency exercising joint powers of the Santa Monica Mountains Conservancy, the Conejo Recreation & Park District, and the Rancho Simi Recreation & Park District pursuant to Section 6500 *et seq.* of the Government Code. These three entities each have a voting member on MRCA's Governing Board, which approved the grant application in February 2020.

I5. Applicant has conducted outreach to the affected communities.

MRCA staff maintains relationships with local community groups, homeowners associations, and other stakeholders to keep affected communities aware of the vegetation management activities. Posted signs provide contact information for the public, and all Governing Board meetings are public. Social media is used to keep the public informed of ongoing activities.

I6. Applicant, or project partner, has 1+ years' experience maintaining and operating projects of similar size and scope.

MRCA has been performing fuel hazard reduction and vegetation management of these lands on an ongoing basis since its inception in 1985.

I7. Project has approval from all landowners to complete the project, or Applicant is the landowner.

The project will be performed on land owned or managed by MRCA.

CC1. The project demonstrates a reduction in baseline greenhouse gas emissions through carbon sequestration or other innovative techniques or project designs, such as diverting organic material from landfills.



Proposition 68 Competitive Grant Application  
Vegetation Management, Fire Prevention and Resilience Projects  
Mountains Recreation and Conservation Authority

Fuel modification by brushing retains the CO<sub>2</sub> emissions within the carbon sinks of plant material and prevents their release in atmospheric concentrations during a wildfire. The proposed project will prevent an approximated 10,549 metric tons of CO<sub>2</sub> from being released into the atmosphere (see Appendix A for calculations). The removal of weedy invasive species benefits the long-term health of larger native trees, such as oaks, sycamores, and walnuts that sequester carbon. Organic matter removed during vegetation management is chipped and used as mulch, and not taken to landfills. All of these measures help to make California more resilient to the adverse impacts of global warming.

CC2. The project implements water saving technologies and techniques to yield quantifiable water and energy savings. Such techniques may include the use of drought-efficient landscaping, including climate resilient and native landscaping whenever possible, stormwater filtration, impervious surfaces green roofs and other forms of water capture and storage.

A result of the project will be improved habitat conditions for native species.

CC3. The project contributes to tree canopy cover and/or greenways in urban areas to mitigate heat island effects and promote public health and recreation.

All areas affected by the proposed project are in the urban metropolis of Los Angeles. The project will benefit tree canopy health by removing invasive competition species, ensuring the ongoing public health benefits contributed by those trees. Additionally, through its protection of drought-tolerant native trees and shrubs, the project will protect and create additional habitat for local wildlife; ensure public enjoyment of this wildlife and habitat; provide shade to reduce Urban Heat Island effects; promote infiltration; generate oxygen; and sequester carbon and remove pollutants from the air thus helping to further promote and allow for public health and recreation.

CC4. The project develops or maintains multi-use trails that connect communities, provides access to public resources and reduces vehicle miles traveled.

The proposed project will benefit regional multi-use trails by reducing the risk of wildfire. These trails provide access to public lands, and can also be used as commute routes, reducing vehicle miles traveled.

CC5. The project engages local communities through outreach, education, and interpretation regarding long-term stewardship and climate change awareness.

Social media is used to keep the public informed about ongoing activities, and also to educate about the reasons behind these practices. MRCA staff maintain relationships with local community groups, homeowners associations, and other stakeholders to keep affected communities aware of our activities. Posted signs provide contact information for the public.

CC6. The project implements water saving techniques that utilize nature-based solutions like wetlands, rain gardens, swales, berms, curb cuts with parkway basins, infiltration trenches, vegetation, tree planting, stream daylighting/restoration, and floodplain reclamation.

Proposition 68 Competitive Grant Application  
Vegetation Management, Fire Prevention and Resilience Projects  
Mountains Recreation and Conservation Authority

This criteria is not applicable.

AC1. Project utilizes a local job training entity for a portion of the work.

MRCA recruits staff for the Fire Division from a variety of sources, including job training entities such as the Los Angeles Conservation Corps and training programs such as the Rio Hondo Fire Academy. A portion of work will be conducted by contractors selected through a competitive bid process (governed by Public Contract Code), and job training programs are eligible to bid.

AC2. Project serves a disadvantaged community.

Disadvantaged communities are defined (per SB 535) by a set of criteria that is mapped on the census tract level, and a high population density is common. Due to the way census tracts are defined, large areas of undeveloped open space only occur outside of tracts with high population density. MRCA parklands that are directly in disadvantaged areas tend to be more intensely maintained spaces where vegetation is irrigated and not subject to brush removal requirements. Some lands included in the project boundaries are located adjacent to disadvantaged communities, including Elyria Canyon Park, Elephant Hill Open Space, Elsmere Canyon, Sombrero Canyon, and Rainbow Canyon. Parklands located within low-income communities (per AB 1550) include Heidelberg Park, Elephant Hill Open Space, Verdugo Mountains/Whitebird properties (N of I-210), Hostetter, and the Big Tujunga Wash Open Space Preserve.

AC3. Project serves a severely disadvantaged community.

None of the work proposed is within a severely disadvantaged community.

Proposition 68 Competitive Grant Application  
Vegetation Management, Fire Prevention and Resilience Projects  
Mountains Recreation and Conservation Authority

**Appendix A: Carbon Emissions Calculations**

The benefits that would accrue from the subject grant are related to the amount of land upon which vegetation management is performed. It is assumed that this land would not burn in a wildfire during the following fire season, therefore greenhouse gas emissions will be avoided.

Methodology is taken from the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*, published by the Intergovernmental Panel on Climate Change. *Volume 4, Agriculture, Forestry and Other Land Use*<sup>1</sup>. The amount of land proposed for vegetation management is approximately 400-450 acres.

**EQUATION 2.27**  
**ESTIMATION OF GREENHOUSE GAS EMISSIONS FROM FIRE**

$$L_{fire} = A \cdot M_B \cdot C_f \cdot G_{ef} \cdot 10^{-3}$$

Where:

$L_{fire}$  = amount of greenhouse gas emissions from fire, tonnes of each GHG e.g., CH<sub>4</sub>, N<sub>2</sub>O, etc.

A = area burnt, ha

$M_B$  = mass of fuel available for combustion, tonnes ha<sup>-1</sup>. This includes biomass, ground litter and dead wood. When Tier 1 methods are used then litter and dead wood pools are assumed zero, except where there is a land-use change (see Section 2.3.2.2).

$C_f$  = combustion factor, dimensionless (default values in Table 2.6)

$G_{ef}$  = emission factor, g kg<sup>-1</sup> dry matter burnt (default values in Table 2.5)

Note: Where data for  $M_B$  and  $C_f$  are not available, a default value for the amount of fuel actually burnt (the product of  $M_B$  and  $C_f$ ) can be used (Table 2.4) under Tier 1 methodology.

$$A = 172 \text{ hectare (425 acres)}^2$$

$$M_B \cdot C_f = 38.55^3$$

$$G_{ef} = \text{CO}_2\text{-1591; CO-86; CH}_4\text{-3.5; N}_2\text{O-0.235; NO}_x\text{-3.45.}^4$$

By preventing this land from wildfire, the proposed project would prevent the following greenhouse gases from being emitted:

$$\text{CO}_2 - 10,549 \text{ metric tons (172 * 38.55 * 1591 * 0.001)}$$

$$\text{CO} - 570 \text{ metric tons (172 * 38.55 * 86 * 0.001)}$$

$$\text{CH}_4 - 23 \text{ metric tons (172 * 38.55 * 3.5 * 0.001)}$$

$$\text{N}_2\text{O} - 1.6 \text{ metric tons (172 * 38.55 * 0.235 * 0.001)}$$

$$\text{NO}_x - 23 \text{ metric tons (172 * 38.55 * 3.45 * 0.001)}$$

<sup>1</sup> <https://www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.html>

<sup>2</sup> Source: Staff estimate of 2019 vegetation management work.

<sup>3</sup> Source: *IPCC Guidelines*, Table 2.4 Fuel Biomass Consumption Values for Fires. Vegetation type = Assume land is a 50/50 mix of a) all "other" temperate forests (Mean-50.4) and b) Shrubland (general) (Mean-26.7); average value therefore = 32.35.

<sup>4</sup> Source: *IPCC Guidelines*, Table 2.5 Emission Factors for Various Types of Burning. Vegetation Type = Assume land is a 50/50 mix of a) Savanna and grassland and b) Extra tropical forest (which includes all other forest types). Values used in calculation are an average of the two types.

<p align="center"><b>Budget for Grant Application</b>  <b>Proposition 68 Vegetation Management, Fire Prevention and Resilience</b></p>		
<p align="right"><b>Grant Request: \$ 2,000,000</b></p>		
Budget Item		Amount
<b>A. MRCA Staff</b>		
various	Direct Salaries, Payroll Tax, Benefits & Allocations	\$ 900,000
9998, 9999	Administrative Cost	\$ 500,000
<b>SUBTOTAL A, MRCA Staff:</b>		<b>\$ 1,400,000</b>
<b>B. Materials and Supplies</b>		
3001	Gas & Fuel-Auto & Equipment	\$ 10,000
3007	Supplies/Maint - Weeds/Brushing	\$ 15,000
3011	Minor Equipment - Fire	\$ 10,000
3175	Warning/Protective/Safety	\$ 3,500
3302	Pest Control / Herbicides	\$ 5,000
5112	Land & Building Improvement - Materials	\$ 3,500
6575	Equipment - Fire & First Aid	\$ 15,000
7777	Equipment Allocation	\$ 8,000
<b>SUBTOTAL B, Materials and Supplies:</b>		<b>\$ 70,000</b>
<b>C. Consultants and Contractors</b>		
5114	Land & Building Improvement - Subcontractors	\$ 530,000
<b>SUBTOTAL C, Consultants and Contractors:</b>		<b>\$ 530,000</b>
<b>Grand Total (A+B+C):</b>		<b>\$ 2,000,000</b>