

**Proposal Title**

Mitigating Catastrophic Wildfires with Science-Based Grazing Management Strategies

**Verticals**

Food Systems, Agriculture and Conservation, Forestry

**Contributor(s) Name(s) & Title(s)**

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**Disclosure of Any Conflict of Interest**

None.

**Opportunity/Problem Being Solved**

Wildfires have ravaged federal, state, and private lands across the western US and elsewhere over the past 4 years. By mid-September 2020, [California's 2020 wildfires](#) had released 91MM tonnes of CO2 into the atmosphere and burned 3.4 million acres of land. This is an 'off-the-charts' record as reported by the [Washington Post](#). Targeted managed grazing of ruminants (cows, sheep, goats) has tremendous potential to clear wild fire fuel, slow fires, and in many cases mitigate the rapid and devastating spread of fires that have been witnessed in California over the past decade.

"Widespread and severe wildfires are predicted to increase over time in California and throughout the Western US. This "new reality" requires that we take advantage of all the tools in our management toolbox to protect public safety while meeting our broader rangeland management objectives. There are opportunities to improve fire safety in California by grazing rangelands that are not currently being grazed or even by increasing grazing intensity on very lightly grazed areas. The number of beef cows in California today are only about 57% of their peak numbers in the 1980s (CDFA 2010-2018). This reduction is mirrored by declines in public lands grazing. Strategic implementation of cattle grazing, including potentially fee-for-service agreements, on key private and public lands can meet multiple natural resource objectives, while also lowering fire hazard through reducing fine fuels, reducing fuel continuity, and slowing or stopping shrub encroachment into grasslands." (Benefits of Cattle Grazing...)

**Impediments to Implementation**

- Clear federal guidelines and programs to extensively use ruminant animals to adequately clear fire fuels in high fire threat regions.
- State and local mandates to implement successful grazing programs to reduce fire fuel loads in state and county owned lands.

**Recommended Actions**

Federal authorities (DOI and USDA) need to continue to fund and update Grazing Management Plans (GMP) and act on them to reduce wildfire fuels in fire prone areas in all federal and state lands by providing funding and/or technical assistance for state and local governments to mimic best-practice GMP strategies.

Federal and state government should advance private-public contract grazing schemes for cows and other ruminants to levels commiserate with reducing dangerous fuel loads in fire prone regions.

**Program Type**

Program Modification

**Authority**

Existing authority and possibly new regulation (for funding of GMPs)

### **Involved Agencies and/or Programs**

USDA: Forestry Service, DOI: Bureau of Land Management, National Park Service, US Fish and Wildlife Service

### **Funding**

Private-Public contract grazing is revenue neutral or positive strategy for the government. Initial funding re-allocation from existing GMP streams or new legislative funding stream of \$500M to \$1B to create renewed GMP and contract grazing focus in high wildfire threat regions.

### **Economic Benefits**

1. Avoided costs from decreasing the intensity and extensiveness of fighting wildfires.
2. These programs could increase the marketplace for climate positive grass-fed beef, a climate friendly agricultural solution.
3. The US federal government (Bureau of Land Management and US Forest Service) and state governments could increase revenues by contracting more public land for well-managed fire fuel grazing.

### **Job Creation**

Forest and rangeland ecology jobs to develop GMPs. Farming/ranching jobs for managing ruminant herds. Extensive opportunity if adopted across fire prone Western US region.

### **Environmental Benefits**

A simple 25% reduction in year/year fire intensity as a result of successful grazing strategies to reduce fire fuels would have tremendous climate and water quality benefits. In 2020 alone, this would have resulted in decrease of 20MM tonnes of CO<sub>2</sub>e and approximately 1 million acres of grassland and forest land. The aforementioned climate benefits do not account of continued carbon soil sequestration and biomass lock by keeping forestry and grasslands intact (unburned). Furthermore, using livestock under appropriate management regimes is recognized internationally for its ability to increase carbon sequestration in terrestrial environments.

### **Equity Benefits**

Programs would support low income rural and agricultural communities with new jobs and wildfire protection.

### **Stakeholder Support and Opposition**

Federal and state agencies have historically promoted well managed grazing regimes to reduce the threat and intensity of wildfires. Most historic challenges to grazing on public lands highlight the negative ecological consequences of unmanaged or open range grazing. This proposal shares the common overarching goals of ecological diversity and resilience in ecosystems often affected by wild fire. The creation of scientifically-based grazing management plans should result in the advancement of acute ecological goals while also augmenting a critical resource, ruminants, to help federal and state agencies decrease the threat of wildfire.

### **Key Experts**

- Devii Rao – University of California Cooperative Extension
- Marc R. Horney, Chair, California Rangeland Management Advisory Committee, Professor, Rangeland Ecology & Management, Department College of Agriculture, Food, and Environmental Sciences, Cal Poly University

### **Reference Materials**

[Cattle Grazing Significantly Reduces Wildfire Spread](#)

[Grazing to Prevent Catastrophic Wildfire](#)

[Cattle Grazing is a Tool to Reduce Fire Danger](#)

[Benefits of Cattle Grazing for Reducing Fire Fuels and Fire Hazard](#)

