

Ecologically sensitive vegetation management for wildfire risk reduction

By Doug Johnson, California Invasive Plant Council (Cal-IPC) Executive Director

In response to massively destructive wildfires in recent years, California has dedicated substantial resources to vegetation management to make communities safer. Establishing defensible space around structures has become common, and vegetation management along roads can help reduce fire ignitions as well as ensure safe transportation corridors in the event that residents need to evacuate.

This vegetation management, especially along roadsides, frequently overlaps with invasive plants that favor these disturbed areas. Vegetation management that focuses on removing biomass for near-term fuels reduction may unintentionally exacerbate an invasive plant problem. For instance, mowing rangeland weeds after plants have matured can spread seeds further along a road corridor. Similarly, cutting down broom stands can result in vigorous regrowth and seedling recruitment that soon exceeds the original infestation.

In cases such as these, the management approach has the potential to make the situation worse, both from an ecological stewardship standpoint and a fuels reduction standpoint.

Roadsides are major vectors for the spread of weeds, and finding ways to adjust roadside vegetation management practices to reduce weeds has been an ongoing challenge. Caltrans and other agencies are charged with protecting traveler safety, and roadside vegetation management is driven by this mission. They face significant challenges when it comes to tasks such as mowing thousands of miles of roadsides with a finite workforce and equipment fleet. It may not be possible to mow an area at the best time for limiting spread of weed seeds, or to mow multiple times in a season.

Cal-IPC has joined with other organizations to promote “ecologically sensitive vegetation management” or ESVM. A bill, AB 2610, was authored this year by Assembly Member Laura Friedman from Burbank, to create a fund at the state’s Wildlife Conservation Board to provide grants for ESVM projects. Unfortunately, after passing unanimously out of the Water, Parks, and Wildlife Committee and the Natural Resources Committee, the bill foundered in the Assembly’s Appropriations Committee. We are continuing our advocacy efforts to create this fund.

Innovative projects supported by the fund would provide proof of concept for approaches that reduce wildfire risk while also protecting habitat. This means avoiding weed spread and protecting habitat features that are not considered a fire risk. As promising approaches are developed, they can be scaled up and integrated into the mainstream of fuels reduction work.

ESVM will look different across the state's varied habitats. In a forested area of northern California, thinning may be a favored approach. The five-milelong Auburn Shaded Fuel Break lies within the wildland-urban-interface (WUI) between rugged, forested terrain and communities in the foothills east of Sacramento. Understory vegetation, which serves as ladder fuels to tree canopies, is being cut and chipped where possible, and piled for burning when the terrain is steep or invasive plants are widespread. It is designed to keep potential wildfires "low and slow" so that fire crews have a better shot at containment.

Chaparral fires in Southern California have become more frequent and intense because invasive annual grasses provide "flashy" fuels early in the growing season and displace evergreen shrubs, such as manzanita, chamise, and Ceanothus. In addition, ignition sources are much more common. A top focus for wildfire risk reduction efforts is reducing roadside ignitions, which start a high percentage of wildfires in the region. This is done by "hardening" roadsides so that adjacent vegetation is less flammable.

Researchers with the US Forest Service and University of California are testing the flammability of various plant species to determine which may be safest for roadside seeding. Others with the National Park Service and California State University are working on roadside mowing regimens that reduce seed set from invasive plants while amplifying reproduction of native forbs that are less flammable. Still others are studying the benefits of using cacti as roadside plantings and for residential hazard reduction zones.

Such site-specific solutions need to be developed and implemented widely in order to reduce wildfire risk in a sustainable manner over the long-term, while also supporting the need to control the spread of invasive plants. Join us for a special session at the 2022 Cal-IPC Symposium in November to explore the topic further.

Note from David Bakke, Cal SAF Website Editor, and Cal-IPC member

This article is from the Summer 2022 issue of the newsletter of Cal-IPC entitled *Dispatch*. I thought it might be of interest to those of us working on fuel reduction projects alongside roads or other sensitive areas. For more information about Cal-IPC, please visit their website at <https://www.cal-ipc.org/>.

AB 2610 defines ecologically sensitive vegetation management as *invasive plant control using best management practices to reduce wildfire risk over the long term while supporting native wildlife and biodiversity*.

There are several best management practices guides available on the Cal-IPC website for land managers interested in knowing how to reduce risks of spreading invasive plants while conducting land management.