

a. **Detailed Project Description:**

Project Summary: The purpose of this project is to continue eradication efforts for aggressive noxious weeds in El Dorado and Alpine Counties.

This will protect the rich agricultural lands that are in these Counties and ultimately the South Fork of the American River Watershed in El Dorado County and the Upper Carson River Watershed in Alpine County from the effects of invasive noxious weeds.

It is estimated that invasive weeds cause billions of dollars in damage annually across the nation. That does not even take into account the detrimental effects on the ecosystems they invade. Noxious, non-native weeds are highly invasive with a well-known propensity to establish and disseminate rapidly. These weeds will out-compete native vegetation quickly, eventually creating a monoculture that negatively impacts wild areas, rangeland, national forests, crops and other assets of economic and natural significance within the Sierra Nevada. Invasive weeds impact our natural lands in many ways, they can; decrease wildlife habitat, reduce recreational values and uses, contribute to soil erosion and stream sedimentation, increase fire loads, and decrease land productivity, just to name a few.

All of El Dorado and Alpine County's A and B-rated invasive weed populations are small and still eradicable. This application encompasses seven projects areas in El Dorado County and two in Alpine County. The target weed species are all aggressive invaders that thrive in drainage areas. By safely eradicating these populations now, creeks and streams in the lower sections of the local watersheds will be protected. Protecting these watersheds will ultimately protect and preserve our producing agricultural crop lands and grazing lands, ensuring their economic success.

All populations will be mapped utilizing a geographical positioning system. Maps will be created showing the changes in the individual population size and density. Photo points will be taken whenever possible. All data will be compared to our historical records to determine success in our eradication efforts.

Environmental Setting Narrative: The populations that we are proposing to treat in this application are all on private land in both El Dorado and Alpine Counties. These funds will not be utilized to treat public lands in the project areas. Public agency project partners will treat their sites utilizing their own funds, which will be counted towards in-kind contributions. The project areas are on many sites throughout both Counties. All of these sites are either in or are a threat to the agricultural lands. Land use will not be affected by our treatments. As the species are eradicated land use will improve for wildlife, recreation, farming to name a few.

Background and Scope of Work:

El Dorado County Department of Agriculture is the lead agency in noxious weed eradication efforts in El Dorado and Alpine Counties. A comprehensive roadside survey and eradication program for El Dorado County began in 2000 and in 2002 for Alpine County, and has continued each season through 2011. This work initially targeted three "A"-rated noxious weeds, Spotted knapweed, Diffuse knapweed, and Dalmatian toadflax. The program was expanded to target other species including Canada thistle, Tall whitetop, Yellow starthistle, Diffuse knapweed, Oblong spurge and Russian knapweed.

A majority of the infestations were single plant sites that were treated prior to seed set. This early detection and timely eradication of small populations prevented the establishment of a seed bank at most locations. After years of survey and eradication work, the populations have been significantly reduced, with the complete eradication of the current "A"-rated weeds being possible. A comprehensive eradication project requires the continuation of a thorough program including delimitation, monitoring, treatments, prevention, and educational outreach. .

El Dorado County is a major conduit into the Sierra Nevada Mountains. Eradication of "A" and "B" rated weeds will lower the pressure for dissemination of invasive weeds into the Sierra Nevada, essentially acting as a buffer zone. The target weed species are all aggressive invaders that thrive in drainage areas, disturbed sites, and roadsides. By safely eradicating these populations now, creeks and streams in the lower sections of the local watersheds will also be protected. It is imperative that these eradication efforts continue to safeguard our valuable natural resources in the Sierra Nevada.

Alpine County is approximately 80% public land and with a large majority of that land being mixed conifer stands. The majority of the private land is agricultural land that is utilized as grazing land and for feed and forage production. At this time, all known "A" and "B" rated noxious invasive weed infestations in Alpine County are limited to isolated sites over private property and roadside right of ways. By continuing our eradication efforts on the infestations before they are allowed to expand into an uncontrollable size, we will be protecting the unique native plant communities and wildlife that call Alpine County home, while simultaneously preventing further spread west into California along major transportation corridors.

Over the course of 11 years, multiple surveys per year have been conducted to determine the extent of our noxious weed populations. Efforts are made to educate the public and utilize them as additional weed reporters. All populations of weeds are documented utilizing geographic positioning technology and photos.

El Dorado County belongs to three Weed Management areas(WMA). WMA's provide a collaborative environment with all parties working towards the eventual eradication of noxious weeds within their areas.

This project is part of the Scope of Work for both the El Dorado County WMA and the Alpine/Upper Carson WMA and as such will allow for collaboration between all WMA parties. El Dorado County Department of Agriculture will take the lead on this project working directly with the all partners. WMA partners include USFS, the University of California, El Dorado County Dept. of Transportation, The Native Plant Society, Douglas County (Nevada State) Weed District, Sacramento Municipal Utility District, El Dorado Irrigation District and South Lake Tahoe Public Utilities Bureau of Land Management, California State Parks, Sierra Pacific Industries, American River Conservancy, California Department of Forestry and Fire Protection, High Sierra Resource Conservation and Development Council, and USDA Natural Resource Conservation Service.

Performance measures for all projects:

- Delimitation and mapping: All sites will be mapped including measuring the cover of weeds or counting individual plants when feasible.
 1. All mapping will be completed utilizing Global Positioning System (GPS) data collection and Geographical Information Systems (GIS) for data management and map production.
- The staff will survey previous infestation sites for persistent weed populations. Delimitation will continue outside the original infestation to determine any possible spread.
- A computerized GIS map of the project sites will continue to be created with the locations of detected A and/or B rated noxious invasive plant populations and treatment sites. There will also be a record of previously detected locations that have been treated and considered eliminated.
- Photo points will be taken whenever possible.
- Graphs and reports will be generated to show the performance of the projects
- Plant counts will be taken whenever possible

El Dorado County:

There are seven major project areas in El Dorado County. Below are the area specifics for each project area:

- Camino – Project area consists of twenty-one private properties. All of these properties are working agricultural farms or are adjacent to them. The noxious weed that is a threat to all these properties is Oblong spurge. These properties are all part of a drainage into the American River Watershed.

- Indian Creek – Project area consists of thirteen private properties. All of these properties are working rangeland or are adjacent to these lands. The noxious weed threat in these areas is Oblong spurge.
- Cleveland Fire – project area covers approximately 70 acres. There are five major sites in this project area. This is all forest land that is part of the American River Watershed and as such is a high threat to agricultural lands further down stream. All of the properties to be treated are private lands. The species of concern is Spotted knapweed.
- Georgetown – Project area consists of two properties. These are all private properties that threaten the adjacent agricultural and grazing lands in the area. Oblong spurge is the noxious weed target species.
- Somerset – Project area consists of seven properties. These are all private properties adjacent to working agricultural lands. Oblong spurge is the target species that threatens our wine grape growing areas.
- Yellow starthistle leading edge populations are on private properties along Highway 50 in the easement. These populations are all covered by the encroachment permit with CalTrans.
- Cedar Ravine – Project area consists of seventeen active sites. The sites are all private properties. This is an area that is part of an agricultural district and all drain directly into the local creek system that feeds the American River Watershed. Oblong spurge is the target species.

Alpine County:

There are two major project areas within Alpine County. Below are the specifics for the project areas

- Woodfords – Project area consists of private ranches. All of these lands are working ranch lands that are directly connected to the Upper Carson Watershed. There are twelve active properties that have spotted knapweed on them. The properties are all on the Carson River and the potential for downstream movement is high. There is also a potential to spread into the state of Nevada onto their ranchlands. There are four active Yellow starthistle sites. This species has been targeted due to the limited distribution. Canada

thistle has twelve active sites in this area and Tall whitetop has eight. One Dalmation toadflax site is within this area on private property.

- Markleeville – Project area consists of one private property. The target species is Yellow starthistle and it is entirely on high desert rangeland.
- Yellow starthistle leading edge – all of these populations are along Highway 88 and in the Woodfords area. The Yellow starthistle populations along Highway 88 are within the easement area and are covered by an encroachment permit with CalTrans.

b. Workplan and Schedule Narrative

All 9 projects in this application will have the essentially the same procedure and deliverables. All known sites will be visited, using our historic data, multiple times throughout the growing season. Surrounding areas will be surveyed for new populations. All populations will be treated using an integrated pest management approach. Tools utilized will be chemical as well as manual control methods, where appropriate.

Performance measures for all projects:

- Delimitation and mapping: All sites will be mapped including measuring the cover of weeds or counting individual plants when feasible.
 1. All mapping will be completed utilizing Global Positioning System (GPS) data collection and Geographical Information Systems (GIS) for data management and map production.
- The staff will survey previous infestation sites for persistent weed populations. Delimitation will continue outside the original infestation to determine any possible spread.
- A computerized GIS map of the project sites will continue to be created with the locations of detected A and/or B rated noxious invasive plant populations and treatment sites. There will also be a record of previously detected locations that have been treated and considered eliminated.
- Photo points will be taken whenever possible.
- Graphs and reports will be generated to show the performance of the projects
- Plant counts will be taken whenever possible

Start of Work	July 1, 2014
Treatment season 1	July1, 2014 to June 30, 2015
Treatment season 2	July1, 2015 to June 30, 2015
Treatment season 2	July1, 2016 to December 30, 2016

Mapping Analysis and Report 2	April 30, 2016
Mapping Analysis and Report 2	April 30, 2016
Mapping and Analysis Final Report	April 30, 2017

c. Restrictions, Technical/Environmental Documents and Agreements Narrative.

These projects have no limitations or restrictions. Each population has a signed agreement from the landowner granting permission to the El Dorado County Department of Agriculture for treatment.

A notice of exemption has been filed for this project. There are no additional permits that are required for this project. These are populations that have been under treatment for previous years and have all landowner agreements in place. Projects on federal land have environmental documentation in place.

d. Organizational Capacity Narrative

The El Dorado County Department of Agriculture has been the lead agency on noxious weed eradication for 11 years. We have a well documented ability to manage projects in Alpine and El Dorado County. We have a fiscal manager for these projects that has dealt with these types of project for the entire 11 years. We have a project manager who has managed the noxious weed program for 6 years. We hire a seasonal crew every year that is made up of workers that have been with these projects for multiple seasons.

We have all of the equipment necessary for a successful treatment season. We have vehicles specifically set up for weed eradication. We have off road quads for increased access and treatment ability. We have 11 years of experience utilizing chemical control and have all the equipment as well as necessary licenses and training programs in place. We also have all of the necessary manual control tools readily available.

e. Cooperation and Community Support Narrative

El Dorado County belongs to three Weed Management areas(WMA). WMA's provide a collaborative environment with all parties working towards the eventual eradication of noxious weeds within their areas. All parties sign a memorandum of understanding defining their commitment to the mutual goal of eradicating noxious weeds within the WMA area. A scope of work and a strategic plan is developed by all groups.

This project is part of the Scope of Work for both the El Dorado County WMA and the Alpine/Upper Carson WMA and as such will allow for collaboration

between all WMA parties. El Dorado County Department of Agriculture will take the lead on this project working directly with the all partners. WMA partners include USFS, the University of California, El Dorado County Dept. of Transportation, The Native Plant Society, Douglas County (Nevada State) Weed District, Sacramento Municipal Utility District, El Dorado Irrigation District and South Lake Tahoe Public Utilities Bureau of Land Management, California State Parks, Sierra Pacific Industries, American River Conservancy, California Department of Forestry and Fire Protection, High Sierra Resource Conservation and Development Council, and USDA Natural Resource Conservation Service.

Letters of support are included from the El Dorado Weed Management Area, The Alpine/Upper Carson Weed Management Area, and the Washoe Tribe of California and Nevada.

f. Long-Term Management and Sustainability Narrative

El Dorado County Dept. of Agriculture has a long standing commitment to eradication of these populations, as evidenced by the length of its survey and eradication program. The majority of these populations are very small and eradicable at this point due to diligent and aggressive treatments for successive seasons. Funding of this proposal would put us in a position to eradicate a majority of these populations. Partners in the WMA and affected landowners will continue to monitor for new infestations at eradicated sites and to help manage all others. El Dorado County will continue to aggressively seek funding as needed.

g. Performance Measures Narrative

- Net and Gross acreage affected for each species – decline or increase will be tracked using historical data
- Acres surveyed
- Acres surveyed not infested with noxious weeds
- Graphs and reports will be generated to show the performance of the projects
- Plant counts will be taken whenever possible
- GIS maps will be produced showing the populations and their change over the years
- Photo points will be taken when possible to show changes.

h. Budget Narrative

The majority of the funds requested in this proposal are for seasonal labor to continue on the ground noxious weed treatments. Minimal funds will be used for supplies and overhead. These projects are all covered by a plan of work and have all the necessary documentation. No funds are being used for planning. Partners will contribute a minimum of \$214,000 to this project.