

# NOXIOUS WEED RISK ASSESSMENT

## LAST CHANCE MASTICATION

### STANISLAUS NATIONAL FOREST CALAVERAS RANGER DISTRICT

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#### **Introduction**

Forest Service Manual 2903(4) requires the Forest to “determine the risk of introducing, establishing, or spreading invasive species associated with any proposed action, as an integral component of project planning and analysis, and where necessary provide for alternatives or mitigation measures to reduce or eliminate that risk prior to project approval.” The Stanislaus National Forest Land and Resource Management Plan (Forest Plan) as amended, and the Pacific Southwest Region Noxious Weed Management Strategy require that a noxious weed risk assessment be conducted to “determine risks for weed spread ... associated with different types of proposed management activities” (USDA, USFS 2010).

Noxious weeds are defined in FSM 2905 and the Plant Protection Act of 2000 as “any plant or plant product that can directly or indirectly injure or cause damage to crops (including nursery stock or plant products), livestock, poultry, or other interests of agriculture, irrigation, navigation, the natural resources of the United States, the public health, or the environment.”

The California Department of Food and Agriculture (CDFA) developed and maintains the State noxious weed list which the Stanislaus National Forest referenced in developing the Noxious Weeds and Non-native Invasive Pest Plants of Concern for the Forest. The weed ratings assigned by CDFA “reflect CDFA's view of the statewide importance of the pest, the likelihood that eradication or control efforts would be successful, and the present distribution of the pest within the state” (CDFA [n.d.])b). CDFA defines their noxious weed ratings as follows:

*“A” - A pest of known economic or environmental detriment and is either not known to be established in California or it is present in a limited distribution that allows for the possibility of eradication or successful containment. ... A-rated pests are subject to state (or [County Agricultural] commissioner when acting as a state agent) enforced action involving eradication, quarantine regulation, containment, rejection, or other holding action.*

*“B” - A pest of known economic or environmental detriment and, if present in California, it is of limited distribution. ... At the discretion of the individual county agricultural commissioner they are subject to eradication, containment, suppression, control, or other holding action.*

*“C” - A pest of known economic or environmental detriment and, if present in California, it is usually widespread. ... If found in the state, they are subject to regulations designed to retard spread or to suppress at the discretion of the individual county agricultural commissioner.*

Inventories for weeds in support of Forest Service projects are conducted using the Noxious Weeds and Non-native Invasive Pest Plants of Concern for the Forest list as a guide. The list was generated from several sources including the Forest Plan (Table 3.6a, 2001 SNFPA Final Environmental Impact Statement (FEIS), V.2, Chpt 3, part 3.6, pages 310-311), the CDFA list of State-rated noxious weeds

(CDFA [n.d.]a), new weed discoveries in the Forest, information provided by local County Agricultural Commissioners, occurrence records at CalFlora (a web-based botanical database), published technical references, and personal observations. This noxious weed risk assessment evaluates the risk for weed introduction and spread by project activities.

### **Project Area**

The Last Chance Project proposed treatment units are located in T4N, R14E, Sec 20, 29, 30, 31. This area is in the Wildland Urban Interface, Defense Zone. (Defense Zone, Sierra Forest Plan Amendment pg A46).

### **Purpose and Need**

The purpose of the Last Chance Mastication Project is to reduce ground and ladder fuels in the project area to protect the local communities of Forest Meadows, Sunrise Point, Darby Knob and Hathaway Pines in the event of wildfire, as the proposed treatments would give fire firefighters a strategic place to hold the fire before it reaches the communities.

The Stanislaus National Forest “Forest Plan Direction” (USDA 2010) presents the current Forest Plan management direction, based on the original Forest Plan as amended. The Forest Plan Direction includes forest wide standards and guidelines (p. 33-64) and applicable management area direction for General Forest (p. 161-164) and Wildlife (p. 123-127), Developed Recreation or Administration Site (p. 165-182), Near Natural (p. 119-122), and Scenic Corridor (Retention and Partial Retention) (p. 155-160).

Sierra Nevada Framework Land Allocations as defined in the Forest Plan occurring in the project area include: General Forest, Old Forest Emphasis Areas, California Spotted Owl Protected Activity Centers (PAC), Northern Goshawk PAC, California Spotted Owl Home Range Core Areas (HRCA), Wildland Urban Intermix (WUI): Defense and Threat Zones, and Riparian Conservation Areas (RCA). The Forest Plan Direction includes desired conditions, management intents, and management objectives for each land allocation (p. 183-196).

### **Alternative 1 (Proposed Action)**

Under Alternative 1 (proposed action) a variety of treatments would be implemented to meet the Last Chance project purpose and needs including:

Fuels reduction treatments:

- The Calaveras Ranger District is proposing to mechanically treat 433 acres of mixed conifer and manzanita. All treatment areas were part of the Darby fire which burned in 2001.
- Mechanically shredding/masticating brush and trees less than 8 inches DBH on 300 acres. All masticated fuels will be shredded into lengths of 16 inches and below and are not to exceed 12 inches in height.
- Hand treatments to cut and thin and pile/burn on approximately 133 acres of rocky terrain or slopes greater than 35%.
- Road side chipping would occur when feasible.

- The fuels reduction in this area will protect the local communities of Forest Meadows, Sunrise Point, Darby Knob and Hathaway Pines. If another wildfire was to start in this area the timber stand improvement treatment would give fire firefighters a strategic place to hold the fire and slow it down before it was to reach the communities.

### **Inventory and Existing Noxious Weeds**

The Last Chance Project area (Appendix A) was inventoried for invasive plant surveys from April 11, 2015 to May 11, 2015 by an experienced botany team on Calaveras Ranger District.

Detections of the following noxious weed species were reported and mapped: tocalote, Italian thistle, yellow star thistle.

Also, within  $\frac{3}{4}$  of a mile of the Last Chance Project area, other noxious weeds exist including barbed goat grass, scotch broom, oblong spurge, and medusahead grass. In addition, bull thistle and yellow star thistle are abundant in the surrounding area of the Darby fire footprint.

### **Risk Associated with Proposed Actions**

Fuel reduction treatments would create the opportunity for establishment of noxious species and their spread. Mechanical equipment used to conduct treatments may harbor hitchhikers (propagules from previous work sites). In addition, activities which create gaps, open up the canopy, and create disturbance on the ground may create opportunities for establishment and expansion of noxious species. Over the short-term, noxious weeds which become established may spread and occupy more space in the project area resulting in negative impacts to native species.

### **Cumulative Risk**

The Darby fire burned approximately 14,200 acres in 2001 in the North Fork Stanislaus River watershed, south of the communities of Hathaway Pines, Avery and Arnold. This disturbance (soil burn severity and fire suppression/rehabilitation) created advantageous conditions for noxious species to establish and spread more readily due to open, highly disturbed conditions. Although the steepness of the canyon limits the number of roads and trails in the project area, existing routes function as a pathway for the dispersal of noxious propagules. Forest users have the ability to spread noxious plant propagules on vehicles, clothing, and shoes which they pick up from either outside the forest or transport within the forest.

Activities associated with the Last Chance project may result in the opportunity for establishment and spread of noxious weeds. Likewise, fuelbreak maintenance activities (mechanical or hand treatments or prescribed fire) may increase the risk of established populations spreading in and adjacent to the project area. Propagules could spread on machinery which may transport noxious seeds across the project area. Ground disturbance created by these activities may also allow for the establishment and spread of these populations by creating favorable conditions for their growth, and provide additional pathways and vectors.

Over the coming decades, noxious weeds which may establish due to these activities could persist in the ecosystem and colonize other parts of the project area creating unfavorable conditions for native plant species. Thus, there may be a short- and long-term increase in the risk associated with noxious plant establishment and spread.

## Management Requirements

The following management requirements would reduce the likelihood of introducing new infestations of noxious weeds into the project area.

- 1) Standard contract provisions for equipment cleaning would be applied to mechanical activities, including washing of vehicles prior to their arrival at the work site (minimize the risk of new weed incursions) and following completion of work in an area (minimize the risk of weed propagules leaving the site and spreading existing populations). All equipment that leaves roads or works with soil must be free of soil, mud (wet or dried), seeds, vegetative matter or other debris that could contain seeds. Dust or very light dirt that would not contain weed seed is not a concern.
- 2) Existing weed populations would be treated prior to seed formation (hand treatments, or herbicide treatments where existing Decisions authorize their use).
- 3) Excess fuels would be chipped and piled on existing noxious weed populations (after hand pulling). This would reduce the risk of weed propagules being transported to adjacent weed free locations.

## Noxious Weed Assessment

### *Overall Risk With Management Requirements*

Implementing the management requirements listed above reduces or eliminates the risks of introducing or spreading noxious weeds in the project area. Implementation of the proposed project with the noxious weed management requirements would impart a **low risk** of noxious weed introduction and spread by the project.

### *Overall Risk Without Management Requirements*

Implementing the Project without requiring the management requirements listed above would impart a **moderate to high risk** of introducing new infestations of noxious weeds or spreading existing weeds.

