

PROGRAMMATIC CONSERVATION AGREEMENT FOR KINCAID'S LUPINE
(*Lupinus sulphureus* spp. *kincaidii*) IN DOUGLAS COUNTY

Roseburg Bureau of Land Management, Umpqua National Forest and the
U.S. Fish and Wildlife Service

I. SPECIES ADDRESSED

Lupinus sulphureus spp. *kincaidii* (Kincaid's lupine)

II. INVOLVED PARTIES

U.S. Fish and Wildlife Service
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Attn: Sam Friedman

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Jay Carlson, District Manager
Roseburg District, Bureau of Land Management
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U.S. Forest Service
Richard Sowa, Acting Forest Supervisor
Umpqua National Forest
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Attn: Richard Helliwell

III. AUTHORITY, PURPOSE, OBJECTIVES, AND GOALS

- A. The authority for the U.S. Fish and Wildlife Service's (Service) Roseburg Field Office (Office) to enter into this voluntary Conservation Agreement derives from the Endangered Species Act of 1973 (Act), as amended; the Fish and Wildlife Act of 1956, as amended; and the Fish and Wildlife Coordination Act, as amended. The Roseburg District Bureau of Land Management (District) has the authority to enter into this agreement from the Act and the Federal Land Policy and Management Act of 1976 as amended. The Umpqua National Forest (Forest) has the authority to enter into this agreement from the Act and the National Forest Management Act of 1976.

B. The purpose of this Conservation Agreement is to formally document the intent of the parties involved to protect, conserve, and contribute to the recovery by implementing recovery actions for Kincaid's lupine and its habitat on federal lands within Douglas County (Appendix A). This Conservation Agreement represents a program-level agreement document that outlines how conservation actions will be approached, and what research needs to be done in support of these efforts, but does not make site-specific management commitments until such time as these can be determined. A single management plan addressing each Kincaid's lupine population on federal lands in Douglas County will be appended to this Conservation Agreement as it is developed (Appendix B). The schedule for completion of the draft management plan is to have it prepared by December 31, 2006.

C. Objectives:

- To maintain stable populations of Kincaid's lupine in Douglas County by protecting and restoring habitat in each of the populations.
- To reduce threats to the species to assure that viable populations of Kincaid's lupine in Douglas County will be maintained on District and Forest managed lands.
- To promote larger functioning metapopulations (defined as two or more Kincaid's lupine local populations existing at the same time but in different places) of Kincaid's lupine, with increased population sizes and genetic diversity, which in turn will promote long-term population viability and species conservation, and reduce the risk of local extirpation.
- To meet recovery criteria, a final Recovery Outline (USFWS 2006) is available for use as guidance to direct Kincaid's lupine recovery efforts for the Douglas County Recovery Zone for Kincaid's lupine (See Appendix C for recovery zone map). A preliminary draft Recovery Plan, which is nearly complete and will likely be released for public review in late 2006.

D. Goals

- Conserve a minimum of two Kincaid's lupine metapopulations within the Recovery Zone in Douglas County.
 - a. The minimum size of each metapopulation will be 1,000 m² total cover.
 - b. The minimum Kincaid's lupine local population size within a metapopulation will be 60 m² total cover.
 - c. Local Kincaid's lupine populations in a metapopulation should not be more than 8,000 meters apart.
 - d. Number of occupied square meters in a metapopulation shall be stable or increasing for a minimum of 10 years.
- Conserve a minimum of 5,000 m² total cover of occupied Kincaid's lupine habitat within the Recovery Zone in Douglas County including any Kincaid's lupine populations outside of metapopulations.

- Develop a draft management plan by December 31, 2006 and implement the management plan when final to protect, restore, maintain, and enhance habitat quality and diversity for all Kincaid's lupine populations on District land and the Forest in Douglas County (Appendix D).

IV. STATUS AND DISTRIBUTION

Kincaid's lupine was listed as threatened, on January 25, 2000 (USFWS 2000). A critical habitat determination was proposed for the species on November 2, 2005 (USFWS 2005).

Kincaid's lupine is a long-lived perennial species with a maximum reported age of 25 years. Individual plants are capable of spreading by rhizomes, producing clumps of plants exceeding 20 meters (m) (33 feet [ft]) in diameter.

Kincaid's lupine occurs in 76 occurrences, totaling approximately 1,150 acres (465 ha) in size, scattered across six counties (Lewis County, Washington, and Yamhill, Polk, Benton, Lane, and Douglas Counties, Oregon) (USFWS 2005). Kincaid's lupine populations in Douglas County, Oregon, represent the furthest southern extent of the current range. These populations are highly disjunct and isolated from the Willamette Valley populations with approximately 54 miles (87 km) separating Oregon's south Willamette Valley populations from the Douglas County populations. In Douglas County, Kincaid's lupine occurs at eight sites ranging in size from 0.21 to 3.55 acres.

The primary habitat for Kincaid's lupine in Douglas County is open woodland and meadow edges, often near roadsides, associated with *Arbutus menziesii* (Pacific madrone), *Calocedrus decurrens* (incense cedar), and *Pseudotsuga menziesii* (Douglas-fir) trees with a relatively open canopy cover. Most of the Douglas County populations appear to tolerate more shaded habitat conditions than the Willamette Valley populations with canopy cover of 50 to 80 percent (Barnes 2004). These plants are found in wooded areas dominated by Douglas-fir, Pacific madrone, and other trees and shrubs (Barnes 2004). Because these populations represent the southern-most extent of this species' range, they may be adapted to tolerate more extreme habitat and/or other environmental conditions.

V. PROBLEMS FACING THE SPECIES

- Throughout the range, habitat is rapidly disappearing due to development activities, forestry practices, grazing, and roadside maintenance.

In Douglas County:

- Succession due to fire exclusion threatens to replace natural open canopy Pacific madrone/incense cedar woodland with dense shrub or tightly clustered conifer stands, causing loss of suitable habitat.

- Encroachment of non-native species such as Himalayan blackberry, Scotch broom and hedgehog dogtail as well as other non-native species threaten to degrade suitable Kincaid's lupine habitat.
- Small habitat patches that often occur along county and private roadsides face greater vulnerability from road maintenance than those occurring along non-roadside areas.

VI. CONSERVATION ACTIONS TO BE CARRIED OUT

The District and the Forest agree to:

1. Conserve and actively manage existing populations and habitat of Kincaid's lupine to meet the Douglas County Recovery Zone criteria.
 - a) Monitor the status of extant populations.
 - b) Survey suitable habitat for new populations.
 - c) Select, protect, and manage reserve population sites (defined as local populations that have been secured, support minimum number of individuals, and are within pollination distance of other such populations collectively contributing to the minimum viable population size of the metapopulation (USFWS 2006)).
 - d) Evaluate protected status of reserve populations.
 - e) Secure conservation or management agreements for reserve populations that are not yet protected.
 - f) Develop a draft site-specific Kincaid's lupine management plan for the Recovery Zone on Federal lands in Douglas County by December 31, 2006.
 - g) Manage reserve populations to address threats and increase populations.
 - h) Augment populations, as necessary.
2. Cooperate with the Willamette Prairie Species recovery team to develop and implement a standardized population monitoring protocol.
3. Monitor habitat quality and diversity at all Kincaid's lupine populations (the level and degree of monitoring will be specified in the management plan for Douglas County).
4. Collect and transfer Kincaid's lupine seeds to certified seed repository for long-term storage.
5. Identify suitable habitat for potential introduction sites.
6. Develop and implement outplanting protocol.
7. Expand populations and manage habitat, as necessary, to meet recovery goals.
8. Manage and monitor reintroduced populations.
9. Identify research needs for the conservation of the species.

10. The District and Forest shall report on monitoring results and the implementation of conservation activities to the Office by the end of each calendar year.

The Service agrees to:

1. Assist the District and the Forest in managing Kincaid's lupine populations and habitats within Douglas County, and to protect their significant biological and ecological values consistent with current law, regulations, policies, and existing management plans.
2. Review monitoring data and conservation activities in cooperation with the District and Forest and recommend changes in the status of Kincaid's lupine as appropriate.
3. Cooperate in cost sharing conservation activities identified in this agreement as funding permits, such as monitoring and habitat maintenance.
4. Meet annually or as needed with District and the Forest to discuss Kincaid's lupine status and management needs.
5. Forward all new information of Kincaid's lupine to the District and the Forest.
6. Cooperate in the development of Kincaid's lupine management plan in Douglas County.
7. Upon the mutual acceptance of this Conservation Agreement, the Service shall determine if the management committed to in this agreement provides sufficient conservation benefit to the species such that the areas addressed in the Conservation Agreement that are included in the current proposal for designation of critical habitat may be excluded from the final designation per section 4(b)(2) of the Act.

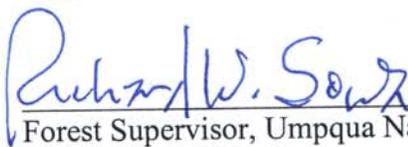
VIII. FUNDING AND IMPLEMENTATION OF CONSERVATION MEASURES

This Conservation Agreement is subject to available funding and staffing. This does not impose financial obligations beyond appropriations. The agencies are committed to seeking funding to implement this conservation agreement each year.

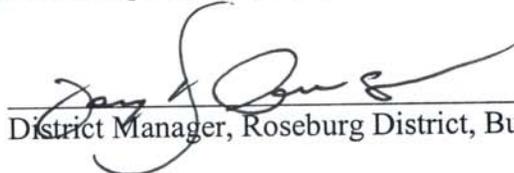
VIII. DURATION OF AGREEMENT

This agreement shall become effective with the signature of the last approving agency official and shall remain in effect until terminated. It can be terminated in writing at any time that the District, the Forest, or the Office determines that the agreement is no longer necessary, with a 30 day written notice to all parties.

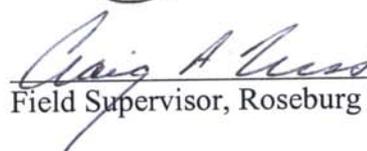
VIII. SIGNATURES



Forest Supervisor, Umpqua National Forest, U.S. Forest Service 4/18/06
Date



District Manager, Roseburg District, Bureau of Land Management 3/30/06
Date



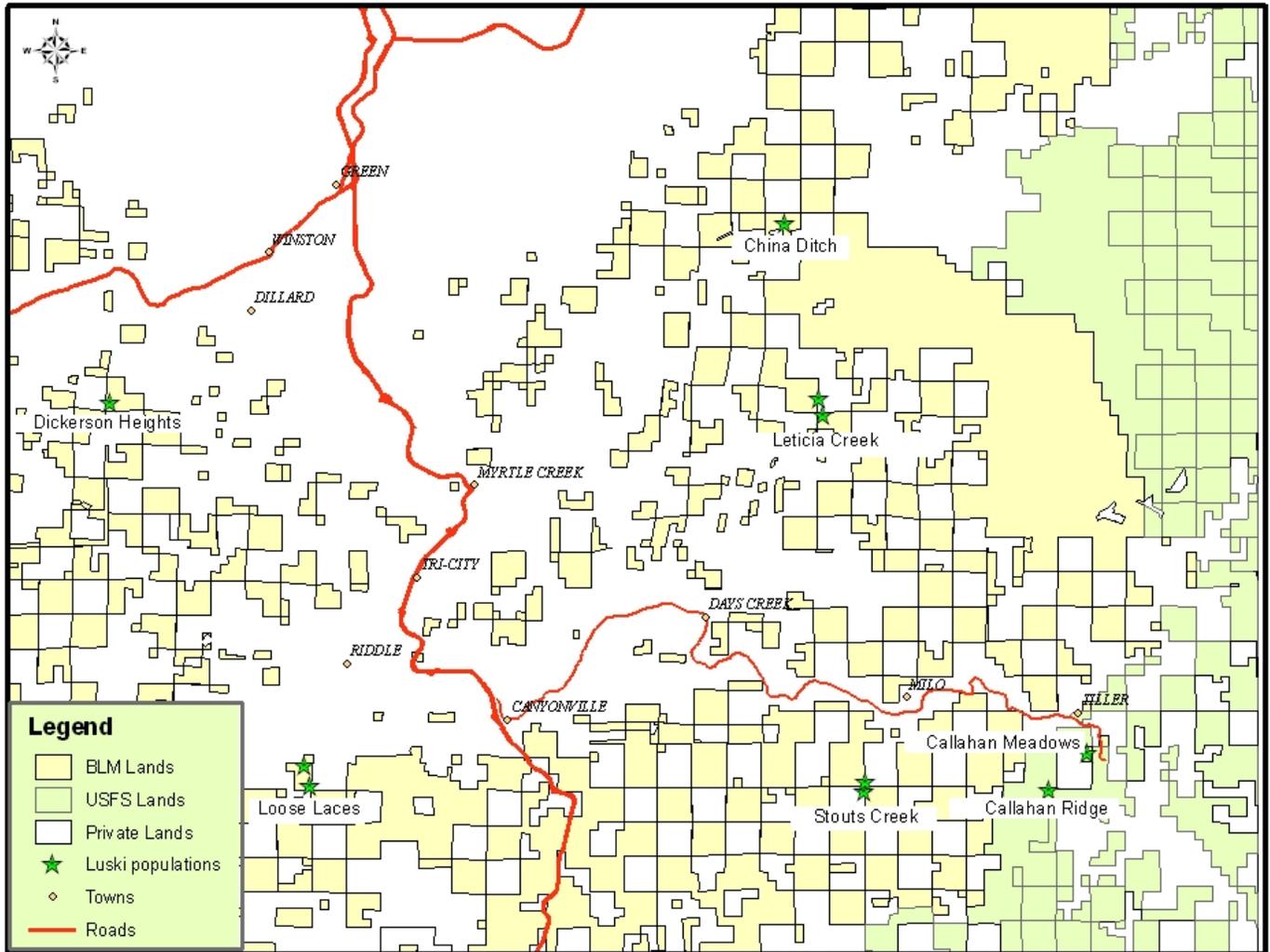
Field Supervisor, Roseburg Field Office, U.S. Fish and Wildlife Service 4/19/06
Date

IX. References

- Barnes, M. 2004. Habitat Variation and Experimental Management of Kincaid's lupine. *Bulletin of the Native Plant Society of Oregon*: Vol. 37, No. 9. October 2004.
- USFWS (U.S. Fish and Wildlife Service). 2000. Endangered and Threatened Wildlife and Plants; Endangered status for *Erigeron decumbens* var. *decumbens* (Willamette daisy) and Fender's blue butterfly (*Icaricia icarioides fenderi*) and proposed threatened status for *Lupinus sulphureus* ssp. *kincaidii* (Kincaid's lupine). *Federal Register* 65:3875-3890.
- USFWS (U.S. Fish and Wildlife Service). 2005. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Fender's Blue Butterfly (*Icaricia icarioides fenderi*), *Lupinus sulphureus* ssp. *kincaidii* (Kincaid's Lupine), and *Erigeron decumbens* var. *decumbens* (Willamette Daisy). Proposed Rule. *Federal Register* 70:66492-66539. November 2, 2005.
- USFWS (U.S. Fish and Wildlife Service). 2006. Recovery Outline for *Lupinus sulphureus* ssp. *kincaidii* (Kincaid's lupine). Portland, Oregon. 23 pp.

Appendix A.

***Lupinus sulphureus* ssp. *kincaidii* on Federal Lands in Douglas County**



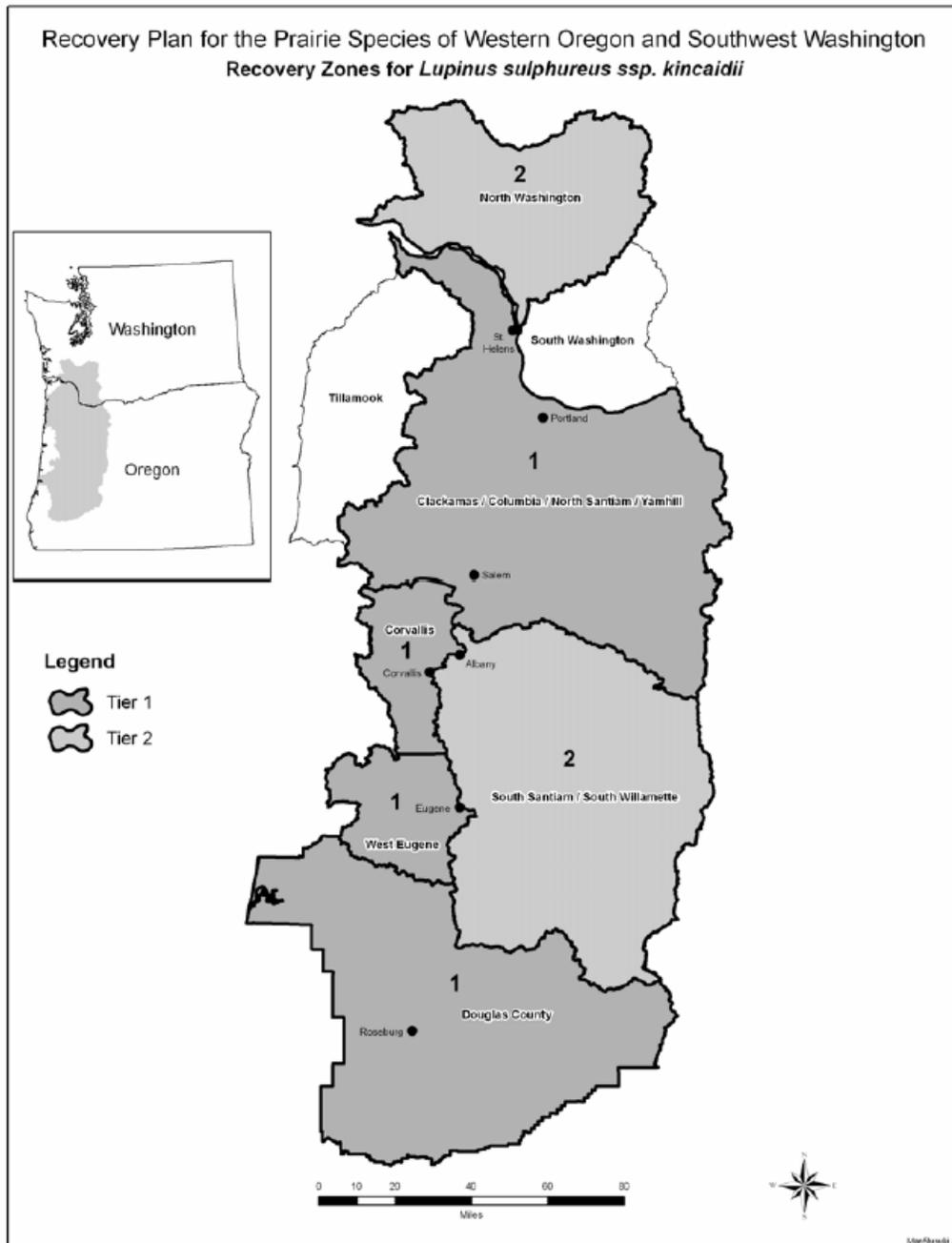
APPENDIX B**Kincaid's Lupine Occurrences in Douglas County on Federal Lands**

County	Site Name	Ownership	Square meters	Acres	Hectares
Douglas	Callahan Meadows	District	559	0.21	0.09
Douglas	Callahan Ridge	Forest Service	573	0.14	0.06
Douglas	China Ditch	District	10,443	2.58	1.04
Douglas	Dickerson Heights	District	251	0.06	0.03
Douglas	Letitia Creek I	District	500	0.12	0.06
Douglas	Letitia Creek II	District	1,000	0.25	0.10
Douglas	Loose Laces	District	4,570	1.13	0.46
Douglas	Stouts Creek	District	4,320	1	0.43

Note: Area size (square meters, acres, hectares) for each site represents the perimeter which is the extent of the population.

APPENDIX C

Recovery Zones for *Lupinus sulphureus* ssp. *kincaidii* from Recovery Outline (2006)



Appendix D.

Management Actions for Kincaid’s lupine sites on Umpqua National Forest and Roseburg District BLM lands.

Site name	Location	Past Management Actions	On-Going Management Actions	Planned Management Actions	Future Management Opportunities	Comments
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ROSEBURG DISTRICT BLM

Callahan Meadows	T31S, R2W, Section 4	Monitoring. Fence to exclude livestock grazing.	Monitoring. Noxious weed control. Fence maintenance.	Pollen or seed transfer from another population.	Pursue population augmentation and reintroduction efforts at site	This population occurs as two very small occurrences at the edge of California black oak/incense cedar woodland adjacent to a serpentine meadow. These occurrences have not set seed for several years.
China Ditch	T28S, R4W, Section 13	Monitoring. Noxious weed control.	Monitoring. Noxious weed control.	Control of competing vegetation.	Investigate need for tree and brush thinning or prescribed fire to prevent shading of population.	Population occurs as three somewhat connected sub-populations, all of which are on roadsides and the cut banks above and below roads. Some areas have patchy canopy of Douglas-fir and madrone. Site has substantial shrub cover.
Dickerson Heights	T29S, R7W, Section 11		Monitoring. Noxious weed control.	Control of competing vegetation.	Pursue population augmentation and Reintroduction efforts at site	Small population along an old skid road and road cut.
Letitia Creek I	T29S, R3W, Section 17	Monitoring	Monitoring. Noxious weed control.	Control of competing vegetation.	Pursue population augmentation and Reintroduction efforts at site	This is the most northern sub-population and co-occurs with <i>Eucephalus vialis</i> along an old ridge top road. Access road (BLM #29-3-20.1) often impassable when wet.
Letitia Creek II	T29S, R3W, Section 17	Monitoring	Monitoring. Noxious weed control.	Control of competing vegetation.	Cooperative agreements with private lands.	Most of this occurrence is on private land. Access road (BLM #29-3-20.1) often impassable when wet.
Loose Laces I	T31S, R6W, Section 3	Monitoring	Monitoring. Noxious weed control.	Control of competing vegetation.	Pursue population augmentation and Reintroduction efforts at site	Monitoring transect is 110 m long established along a curving old skid road. This is the most northern sub-population.

Site name	Location	Past Management Actions	On-Going Management Actions	Planned Management Actions	Future Management Opportunities	Comments
Loose Laces II	T31S, R6W, Section 3	Monitoring	Monitoring. Noxious weed control.	Control of competing vegetation.	Pursue population augmentation and Reintroduction efforts at site	This occurrence consists of three sub-populations. Sub-population 2 is 15 m long along an old skid road. Sub-population 3 is 150 m long along BLM road 31-6-10. Sub-population 4 is above the road cut bank on east side of BLM road 31-6-10.
Stouts Creek	T31S, R3W, Sections 4, 5, 8, 9.	Monitoring	Monitoring. Noxious weed control.	Control of competing vegetation.	Cooperative agreements with private lands.	Most of this population occurs on private land. BLM owns a portion of sub-population 1 in Section 5 and a portion of sub-population 2 in Section 9.

UMPQUA NATIONAL FOREST

Callahan Ridge	T31S, R3W, Section 8.	Monitoring, seed collection	Monitoring.	Control of competing vegetation.	Pursue population augmentation and Reintroduction efforts at site	This is the only population on Forest land and appears healthy and vigorous. The population is near the edge of a meadow and one of the few populations in Douglas County not alongside a road.
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