

**Conservation Agreement for the Siskiyou Mountains Salamander
(*Plethodon stormi*) in Jackson and Josephine Counties of Southwest Oregon**

Rogue River -Siskiyou National Forest, Medford District of the Bureau of Land Management,
and the U.S. Fish and Wildlife Service

I. SPECIES ADDRESSED

Plethodon stormi (Siskiyou Mountains Salamander)

II. INVOLVED PARTIES

U.S. Forest Service
Scott Conroy, Forest Supervisor
Rogue River-Siskiyou National Forest
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Attn: David Clayton

Bureau of Land Management
Tim Reuwsaat, District Manager
Medford District, Bureau of Land Management
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Medford, OR 97501
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U.S. Fish and Wildlife Service
Craig Tuss, Field Supervisor
Roseburg Field Office
2900 NW Stewart Parkway
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Attn: Cynthia Donegan

III. AUTHORITY, PURPOSE, OBJECTIVES, AND GOALS

A. Authority

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 Rogue River-Siskiyou National Forest (Forest) has the authority to enter into this agreement from the Act and the National Forest Management Act of 1976. The Medford District Bureau of

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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.

B. Purpose

The purpose of this Conservation Agreement is to formally document the intent of the parties involved to protect, conserve, and contribute to the conservation of the Siskiyou Mountains salamander by implementing conservation actions for the species and its habitat on federal lands within Jackson and Josephine Counties in southwest Oregon. This Conservation Agreement represents a program-level agreement that outlines how conservation actions will be approached, and what research needs to be done in support of these efforts. Site-specific management will occur as described in the Conservation Strategy (USDA USDI 2007) (Appendix A).

C. Objectives

The Conservation Strategy describes conservation objectives identified at three spatial scales (site scale, intermediate and at the Rogue River-Siskiyou National Forest, Siskiyou Mountains Ranger District, and Medford BLM, Ashland Resource Area, northern portion of the species' range scale). Conservation objectives include: 1) establishing the initial extent of selected managed known sites; 2) selecting managed known sites based upon location of animals, suitable habitat, risk factors, federal land allocations, and proximity to other sites; and 3) managing these sites in a manner that will provide well-distributed habitat to support reproductive individuals that can interact in the planning area in an effort to maintain viable populations such that there are estimated numbers and distribution of reproductive individuals to insure their continued existence in the planning area (for detailed description of the Conservation Strategy objectives, see Appendix A).

D. Goals

The Conservation Strategy describes the management actions necessary to maintain a high likelihood of well-distributed populations across the northern portion of the species' range, within the Applegate River 4th Field watershed, on federal lands administered by the Rogue River-Siskiyou National Forest, Siskiyou Mountains Ranger District, and the Oregon Bureau of Land Management, Medford District, Ashland Resource Area, in the northern portion of its range, the Applegate River 4th field watershed, and avoid a trend toward federal listing under the Endangered Species Act.

For Oregon Bureau of Land Management (BLM) administered lands, the Special Status Species policy details the need to manage for species conservation. Conservation is defined as the use of all methods and procedures which are necessary to improve the condition of Special Status Species and their habitats to a point where their Special Status recognition is no longer warranted. In addition, implementation of the policy is intended to ensure that actions funded, authorized, or carried out by the BLM do not contribute to the need to list species under the Act.

For Region 6 of the Forest Service, Sensitive Species policy requires the agency to maintain viable populations of all native and desired non-native wildlife, fish, and plant species in habitats distributed throughout their geographic range on National Forest

System lands. Management should also preclude a trend towards federal listing, for any identified Sensitive Species.

For the U. S. Fish and Wildlife Service, the Act (section 10(a)(1)(A) provides an avenue for the Service to enter into voluntary agreements that benefit non-listed species. These agreements are intended to further the purposes of the Act by supporting actions that may improve the status of an individual species and which may preclude the need to list the species.

IV. STATUS AND DISTRIBUTION

On March 29, 2007, the Service issued a 90 day finding on a petition to list the Siskiyou Mountains salamander (USFWS 2007). The Service determined the petition presented substantial scientific or commercial information indicating that listing the species may be warranted. Therefore, the Service has initiated a status review of the species, and will issue a 12-month finding to determine if the petitioned action is warranted.

The Siskiyou Mountains salamander's range encompasses approximately 337,037 acres (136,500 ha) in three counties (Jackson, Josephine, and Siskiyou Counties) of southwestern Oregon and in northern California (Clayton and Nauman 2005). More specifically, this species has been detected in the Applegate River drainage of southern Oregon, south to the Klamath River watershed of northern California. In California, recent genetic analyses indicate the species' range is bounded to the west by the Indian Creek drainage and to the east by the Horse Creek drainage (see DeGross 2004; Mahoney 2004; Mead et al. 2005; Mead 2006). It is known from sites ranging from 1,600 feet (488 meters) (Nussbaum et al. 1983) to approximately 1,800 meters (6,000 feet) in elevation (Clayton et al. 1999). Approximately 90 percent of the Siskiyou Mountains salamander's range occurs on federal lands managed under the Northwest Forest Plan (Plan) (USDA, USDI 1994). Within the Plan area, 36 percent of the salamander's range occurs in reserves (Late-Successional Reserves, Administratively Withdrawn Areas, and Congressionally Reserved Areas), where timber harvest and other ground-disturbing activities are severely restricted; 10 percent occurs within Matrix lands generally available for timber harvest; and 44 percent occurs in Adaptive Management Areas (AMA), where habitat management guidelines are flexible and some timber harvest is expected to occur. The remaining 10 percent of the species' range occurs on private lands.

In the Applegate Watershed covered by the Conservation Strategy (Olsen et al. 2007), there are 201 sites on District administered lands (on the Ashland and Grants Pass Resource Areas), 115 sites on public lands administered by the Forest (on the Applegate Ranger District), and 14 sites on private lands. These sites occur within all federal land allocations (Adaptive Management Areas (AMA), Administratively Withdrawn areas, Congressionally Reserved areas, Late Successional Reserves, and Matrix lands). Distributions of sites within the Applegate watershed portion of the range are primarily on AMA lands (67%), some reserves (18%), and private lands (16%) (Nauman and Olson 1999).

The Siskiyou Mountains salamander is found on forested slopes where rocky soils and talus outcrops occur. Occupied habitat for the Siskiyou Mountains salamander can range from small

isolated rock outcrops to entire hillsides (Clayton et al. 2004). Occasionally these salamanders can be found under other types of cover such as bark, limbs, or logs, but only during wet weather when moisture is high and only if there are talus outcrops nearby (Nussbaum 1974; Nussbaum et al. 1983). Nussbaum (1974) characterized optimal habitat for the Siskiyou Mountains salamander as stabilized talus in old-growth forest stands on north-facing slopes. However, more recently, populations of the species have been found in rock outcrops in all forest age classes and on all slope aspects (Clayton et al. 2004), as well as in managed stands (CDFG 2004).

Additional detailed information regarding status, range and distribution of the species may be found in the Conservation Strategy (Appendix A).

V. THREATS

Activities that may pose threats to this species are those that disturb the surface microhabitats and/or microclimate conditions. Disturbance of surface microhabitats is of primary concern because alteration of the microhabitat and microclimatic conditions can negatively impact these salamanders. Typically these negative impacts involve actions that remove canopy and/or disturb the substrate.

Examples of threats include timber harvest, road construction, rock pit mining, and development of large recreation sites. Wildland fire is also a primary threat to this species. Other activities, such as prescribed fire, trail construction, and chemical applications may pose somewhat lesser or localized threats to the species and do not likely pose a threat to species persistence. All these are presumed threats to this salamander, as no studies have been published to document losses from specific anthropogenic disturbances in this species (USFWS 2007). These activities and their impacts to these salamanders are discussed in the Conservation Strategy (Appendix A).

VI. CONSERVATION ACTIONS TO BE CARRIED OUT

The District and the Forest agree to:

1. Adopt and implement the final Conservation Strategy for the Siskiyou Mountains salamander under which Siskiyou Mountains salamander populations and habitats within Jackson and Josephine Counties will be managed to protect their significant biological and ecological values consistent with current law, regulations, policies, existing and future management plans.
2. A 5-year monitoring plan will address implementation and effectiveness of the Conservation Strategy. This plan will be developed by the field unit representatives and will include an implementation and effectiveness monitoring plan to be completed within the first year of acceptance of the conservation plan. Costs for initial development should be approximately \$6,000.00.
3. In year two through five, effectiveness monitoring of the activities management proposed in the conservation plan would occur by the field units. Questions would include: 1) Have the

proposed management strategies occurred within sites? 2) Has there been discretion to field validate and delineate sites as needed? 3) Are there animals present post-activity at the site? Distributional surveys in priority areas and in potential connectivity areas could also occur at this time. Costs for this should be approximately \$5,000.00 or less.

4. In support of Adaptive Management, a review of this conservation strategy will be conducted every five years, where new species knowledge, science findings, habitat information, and strategy implementation are evaluated. Revision of the Conservation Strategy may follow the 5-year reviews to refine the plan or address emerging issues if deemed necessary by the cooperating parties.
5. Between the 5-year reviews, the following changes may trigger an immediate review:
 - A significant change in the number of known sites within a sixth field watershed so that the understanding of the distribution of the species has changed to the extent that sites may be added or re-prioritized.
 - A significant range change or extension has occurred such as a site found north of the Applegate River or in another 6th field watershed not previously known to harbor the species.
 - Significant changes in Forest Service or BLM Land-Use Allocations as determined by the field unit, within the area of the conservation strategy or a significant management direction change on Federal lands within the area of the conservation strategy.
 - A significant change in habitat conditions due to large-scale fire that may change our assumptions as to the persistence of high-priority sites identified within the conservation strategy. This might occur when more than half of one 6th field watershed occupied by the species is affected by the disturbance.
 - New science that changes the understanding of the ecology of the species or its habitats.
6. Identify research needs for the conservation of the species.

The Service agrees to:

1. Assist the District and the Forest in managing Siskiyou Mountains salamander populations and habitats within Jackson and Josephine Counties, 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 the Siskiyou Mountains salamander as appropriate.
3. Meet annually or as needed with District and the Forest to discuss Siskiyou Mountains salamander status and management needs.
4. Forward all new information on the Siskiyou Mountains salamander to the District and the Forest.
5. Cooperate in the updating of the Siskiyou Mountains salamander Conservation Strategy as needed.
6. Support implementation of conservation actions that may preclude the need to list the species.

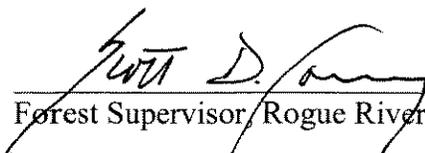
VIII. FUNDING AND IMPLEMENTATION OF CONSERVATION MEASURES

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

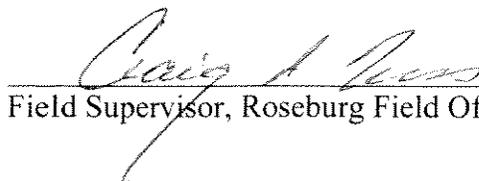
VIII. DURATION OF AGREEMENT

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 Service determines that the agreement is no longer necessary, with a 30 day written notice to all parties.

VIII. SIGNATURES


 _____ 7/27/07
 Forest Supervisor, Rogue River-Siskiyou National Forest, U.S. Forest Service Date


 _____ 8/16/07
 District Manager, Medford District, Bureau of Land Management Date


 _____ 8/15/07
 Field Supervisor, Roseburg Field Office, U.S. Fish and Wildlife Service Date

References

- California Department of Fish and Game. 2004. Draft Status Review: Siskiyou Mountains Salamander (*Plethodon stormi*). February 27, 2004.
- Clayton et al. 1999. Survey Protocol for the .the Siskiyou Mountains Salamander. Version 3.0. 37 pages.
- Clayton et al. 2004. Conservation Assessment for the .the Siskiyou Mountains Salamander. Version 1.3. 34 pages.
- Clayton and Nauman 2005. Siskiyou Mountains Salamanders. Article published in Amphibians of the Pacific Northwest. Pages 137 & 138.
- DeGross 2004; Gene Flow and the Relationship of *Plethodon stormi* and *P. elongatus* Assessed with 11 Novel Microsatellite Loci. Thesis abstract. 61 pages.
- Mahoney 2004; Molecular systematics and phylogeography of the *Plethodon elongatus* species group: combining phylogenetic and population genetic methods to investigate species history. *Journal of Molecular Ecology* (2004) 13, 149–166.
- Mead et al. 2005; Newly Discovered Populations of Salamanders from Siskiyou County Represent a Species Distinct from *Plethodon Stormi*. *Herpetologica*. Volume 61, Number 2. 158-177.
- Mead 2006. *Plethodon* Salamanders of the Applegate, Klamath and Scott River Areas: Report on Genetic Variation and Species Status. 27 pages.
- Nussbaum 1974; A Report on the Distributional Ecology and Life History of the Siskiyou Mountains Salamander, *Plethodon stormi*, in relation to the Potential Impact of the Proposed Applegate Reservoir on this species. 70 pages.
- Nussbaum et al. 1983. *Amphibians and Reptiles of the Pacific Northwest*. University of Idaho Press. Moscow, Idaho. 72-73, 90-91, 102 -105.
- Olsen et al. 2007. Conservation Strategy for the Siskiyou Mountains Salamander (*Plethodon stormi*), Northern Portion of the Range. Version 1.0.
- USDA/USDI (U.S. Forest Service, Bureau of Land Management). 1994. Record of decision for amendments to Forest Service and Bureau of Land Management planning documents within the range of the northern spotted owl. U.S. Forest Service, Bureau of Land Management, Portland, OR. 2 vols. and appendices.
- USFWS (U.S. Fish and Wildlife Service). 2007. Endangered and threatened wildlife and plants; 90-Day Finding on a Petition to List the Siskiyou Mountains Salamander and Scott Bar Salamander as Threatened or Endangered. *Federal Register*, 50 CFR 17: 72,14750-14759.

Appendix A. Conservation Strategy for the Siskiyou Mountains Salamander in Jackson and Josephine Counties of southwest Oregon.