

and 2001. In 1998, surveys coordinated by the BOR found 500 to 1,000 plants in the area (Cypher 1998). Surveys conducted in 2000 and 2001 by the SFC found eight separate patches of *S. keckii* growing on both Fancher and Cibo soils (C. Peck, *in litt.*, 2002).

This unit is essential to the conservation of the species because it is one of the two sites at which the species has been observed since the 1930s. When the number of populations or geographic distribution of a species are severely limited, as is the case when plants have only been observed recently at two locations, possible extinction or extirpation due to random events become a concern. Examples of random events that are a concern include fire and disease (Shaffer 1981, 1987; Primack 1993, Meffe and Carroll 1994). This unit is also essential because it includes the most northerly location known for *S. keckii*, and is the only location where above-ground plants with maroon-centered flowers have been documented (Cypher 1998).

Unit 2: Mine Hill

Unit 2 is about 3 km (2 mi) south of Success Dam and 5 km (3 mi) east of Porterville in Tulare County and contains 86 ha (213 ac), all of which are on privately owned land. Unit 2 encompasses a single known patch of *Sidalcea keckii*, which contained approximately 60 plants when last surveyed in 1992. At the request of the landowner, it has not been surveyed since that time. However, based on information from public comment, the standing population at Mine Hill may have been extirpated by conversion of the habitat to an orange grove. We currently do not know how much habitat may have been converted, although we believe that much of the habitat around the original population remains potentially viable and may contain a seed bank or standing plants. The Coarsegold rock outcrop soils of the area are best suited to rangeland (SCS 1982), which is the current use of the area where not converted to orchard. However the site is also zoned for mobile home development (R. Brady, Tulare County Planning Department, pers. comm., 1997).

This unit is essential to the conservation of the species because it is presumably one of the two known locations where *Sidalcea keckii* plants have been observed since the 1930s. As is the case with Unit 1, when the number of populations or geographic distribution of a species are severely limited, possible extinction or extirpation due to random events become a concern. Examples of random

events that are a concern include fire and disease (Shaffer 1981, 1987; Primack 1993, Meffe and Carroll 1994).

Unit 3: White River

Unit 3 is located near the town of White River in southern Tulare County. It contains 146 ha (362 ac), all of which is private land. Unit 3 contains the "type" location, specimens from which were used to first describe the species in 1940 (Wiggins 1940). This site is the only one not closely associated with serpentine rock, but contains the primary constituent elements that would support the species. This may be due to the presence of currently unknown and unmapped serpentine areas, or it may be due to an increased ability to compete on non-serpentine Cibo soils.

As noted above, the White River site is one of the extremely few locations where *Sidalcea keckii* has ever been observed and may be occupied by a seed bank. *Sidalcea keckii* plants may still occur here, but none have been documented recently. Even if the species is not rediscovered at the White River site, we believe the site is essential to the conservation of the species. Because *S. keckii* has been observed at the site, it is the most appropriate site at which a reestablishment effort might be attempted. The combination of small range, few populations, and restricted habitat makes *S. keckii* susceptible to extinction or extirpation from a significant portion of its range due to random events, such as fire, disease, or other occurrences (Shaffer 1981, 1987; Primack 1993, Meffe and Carroll 1994). Such events are a concern when the number of populations or geographic distribution of a species are severely limited, as is the case with *S. keckii*. Establishment of a third location for *S. keckii* is likely to be an important component in reducing the risk of extinction due to such catastrophic events. This location also represents the southernmost extent of the known historical range of the species.

Effects of Critical Habitat Designation

Section 7(a) of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, permit, or carry out do not destroy or adversely modify critical habitat. Destruction or adverse modification of critical habitat occurs when a Federal action directly or indirectly alters critical habitat to the extent it appreciably diminishes the value of critical habitat for the conservation of the species. Individuals, organizations, States, local governments,

and other non-Federal entities are affected by the designation of critical habitat only if their actions occur on Federal lands, require a Federal permit, license, or other authorization, or involve Federal funding.

Section 7(a) of the Act requires Federal agencies, including the Service, to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened, and with respect to its critical habitat, if any is designated or proposed. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a species proposed for listing, or result in destruction or adverse modification of proposed critical habitat. Conference reports provide conservation recommendations to assist the action agency in eliminating conflicts that may be caused by the proposed action. The conservation measures in a conference report are advisory.

We may issue a formal conference report, if requested by the Federal action agency. Formal conference reports include an opinion that is prepared according to 50 CFR 402.14, as if the species was listed or critical habitat designated. We may adopt the formal conference report as the biological opinion when the species is listed or critical habitat designated, if no substantial new information or changes in the action alter the content and conclusion(s) of the opinion (50 CFR 402.10(d)).

If a species is listed or critical habitat is designated, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Through this consultation, the Federal action agency would ensure that the permitted actions do not destroy or adversely modify critical habitat.

If we issue a biological opinion concluding that a project is likely to result in the destruction or adverse modification of critical habitat, we also provide "reasonable and prudent alternatives" to the project, if any are identifiable. Reasonable and prudent alternatives are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be