Chorizanthe blakleyi

***Chorizanthe blakleyi* Hardham** (Blakley's spineflower)

Management Status

Federal: Forest Service Sensitive

California: None

Heritage Rank: G2, S2.3 – no current threats known (California Natural Diversity Database)

California Native Plant Society (2001): List 1B; R-E-D Code 2-1-3

General Distribution

Chorizanthe blakleyi is endemic to the north slope of the Sierra Madre Mountains in Santa Barbara County and is found at about eight locations. Reports that *Chorizanthe blakleyi* is present in Bear, Castro, Goode, and Tennison canyons are in error; the plants at these locations are *Chorizanthe uniaristata* (Foster 2003a; Smith, personal communication).

Distribution in the Planning Area

Chorizanthe blakleyi is found on the Los Padres National Forest at the following locations: White Oaks Guard Station; Aliso Canyon; above Montgomery Potrero; and near McPherson Peak (Smith 1998, CalFlora 2002). The population that is one mile southeast of McPherson Peak is the type locality (Smith 1998).

Taxonomy and Natural History

Chorizanthe blakleyi is a dicot in the buckwheat family (Polygonaceae). It is closely related to *Chorizanthe palmeri*, from which it differs by the shape and color of the flowers (Hickman 1993). *Chorizanthe blakleyi* is an ascending annual, 5-15 cm tall. The stem is yellow-green and covered with long spreading hairs. The leaves are mostly basal, generally oblanceolate, and 5-25 mm long. The involucre is urn-shaped, and thinly hairy with six awns. The perianth is 5-6 mm, white to pink. Flowering occurs from April to June.

Habitat Description

Chorizanthe blakleyi occurs on flats and north-facing slopes in sandy, sometimes rocky, open areas in chaparral or pinyon-juniper woodland.

Occurrence Status

Chorizanthe blakleyi is reported to be locally abundant in years with suitable rainfall (Smith 1998) and absent in years of low rainfall. In Aliso Canyon, over 150 plants were observed in 1995, and in 2003 there were 104 plants (Foster 2003b). There is no trend data for the population at McPherson Peak, but in 2003 there were over 700 plants present (Foster 2003c). In Bates Canyon adjacent to the White Oaks Guard Station, there were 238 plants in 1995 and about 250 plants in 2003 (Foster 2003d).

Threats

Chorizanthe blakleyi is threatened by vehicles, dispersed recreation, road maintenance, and nonnative undesirable plants (California Native Plant Society 2001). On National Forest System (NFS) lands, the primary threat is from road and trail maintenance. Grazing occurs in three of the four locations where *Chorizanthe blakleyi* is found but to date, impacts from grazing have not been noted. The low growing, prickly stature of *Chorizanthe blakleyi* probably reduces the risk of herbivory but trailing by livestock could impact *Chorizanthe blakleyi* habitat and plants could be adversely affected if trampling occurs during the growing season.

Conservation and Management Considerations

Coordinate road and trail maintenance to avoid impacting *Chorizanthe blakleyi* plants and habitat on National Forest System lands in Aliso Canyon and along Sierra Madre Ridge Road near McPherson Peak.

Survey Rocky Ridge Trail north of Montgomery Potrero in order to locate this historic occurrence. If found, use GPS technology to accurately record location of plants. Complete occurrence record and evaluate current threats.

Coordinate with fire and facilities managers to ensure that any use or decommissioning of the water tank at White Oaks Station is accomplished with minimal risk to *Chorizanthe blakleyi*.

Evaluation of Current Situation and Threats on National Forest System Lands

Chorizanthe blakleyi is an uncommon, narrow endemic, with only four occurrences known on NFS land. Each of these occurrences is found adjacent to a road, a trail, or a water tank, making each occurrence vulnerable to use of NFS land.

Based upon the above analysis *Chorizanthe blakleyi* has been assigned the following threat category:

5. Uncommon, narrow endemic, disjunct, or peripheral in the Plan area with substantial threats to persistence or distribution from Forest Service activities.

Viability Outcomes for National Forest System Lands

Predicted Outcomes by Alternative

1	2	3	4	4a	5	6
B	B	B	B	B	C	B

Chorizanth blakleyi is a USDA, Region 5 Forest Service, Sensitive Species. This assures that any new project proposed in or near its habitat has to undergo a careful analysis of effects through the development of a biological evaluation at the site-specific level.

Existing roads, trails and facilities have resulted in past impacts to *Chorizanthe blakleyi* and the creation of small gaps in the species historic distribution. Populations appear stable and are likely to remain stable under all alternatives but Alternative 5. The increased emphasis on motor vehicle based recreation in Alternative 5 could result in higher levels of dispersed recreation use, increased instances of unauthorized off road travel, and higher levels or road and trailside disturbance. This could lead to increased fragmentation of *Chorizanthe blakleyi* habitat and smaller population sizes. However, if current road closures remained in effect on those road segments where *Chorizanthe blakleyi* occurs (Sierra Madre Ridge Road and Aliso Canyon Road) then there would be no difference between alternatives.

Viability outcomes for All Lands Within Range of the Taxon

Predicted Outcomes by Alternative

1	2	3	4	4a	5	6
C	C	C	C	C	C	C

Little information is available regarding the status of *Chorizanthe blakleyi* on private land. Available information indicates that habitat has been fragmented by oil development in the Cuyama Valley foothills, and by road and rangeland improvements. Intensive grazing by livestock may also adversely

affect habitat on private property. The degree of habitat fragmentation that is present across the entire range of the species would not be substantially affected by any of the alternatives; the increase in habitat fragmentation that would occur under Alternative 5 would not be sufficient to produce a high probability that occurrences would become extirpated.

Literature Cited

CalFlora: [Web application]. 2002. *Information on California plants for education, research and conservation.* Berkeley, California: The CalFlora Database [a non-profit organization].

California Native Plant Society. 2001. *Inventory of rare and endangered plants of California* (sixth edition). Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. Sacramento, CA: California Native Plant Society.

California Natural Diversity Database. *Special vascular plants, bryophytes, and lichens list.* Sacramento, CA: California Department of Fish and Game.

Foster, Mike. 2003a. "Reconnaissance report for Castro Canyon." On file, Los Padres National Forest, Frazier Park, CA.

Foster, Mike. 2003b. "Occurrence record for *Chorizanthe blakleyi*, Aliso Canyon." On file, Los Padres National Forest, Frazier Park, CA.

Foster, Mike. 2003c. "Occurrence record for *Chorizanthe blakleyi*, McPherson Peak." On file, Los Padres National Forest, Frazier Park, CA.

Foster, Mike. 2003d. "Occurrence record for *Chorizanthe blakleyi*, White Oaks Station." On file, Los Padres National Forest, Frazier Park, CA.

Hickman, James C. (ed.). 1993. *The Jepson manual: higher plants of California.* Berkeley, CA: University of California Press.

Smith, Clifton. 1998. *A flora of the Santa Barbara region, California.* Santa Barbara, CA: Santa Barbara Botanic Garden & Capra Press.

Stephenson, John R.; Calcarone, Gena M. 1999. *Southern California mountains and foothills assessment: habitat and species conservation issues.* (General Technical Report GTR-PSW-172.) Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture.