

2005 Inventory for *Calochortus greenei*
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Background: Populations of *Calochortus greenei* (CAGR) are documented just outside the Klamath Falls Resource Area in California and Jackson County, OR, and in similar habitats to those that occur within the resource area. Three sites of CAGR were recorded just inside Klamath County by SVIM vegetation surveys, but were never re-located. Detection and identification of the species is difficult since the single basal leaf tends to dry out by the time the plant is flowering, flowers are borne on a single stalk, and bulbs can remain dormant for one to several years. Herbivory on both the single leaf and the flower stalk makes detection even more difficult. Baseline monitoring on the Medford District found high levels of herbivory and low levels of fruiting, with no reproductive seedlings observed. This inventory focused on both the habitat and the time frame when detections are most likely to occur to help determine the range and abundance of CAGR. This species is endemic to Siskiyou County, California, Jackson County, Oregon, and possibly Klamath County, Oregon.

Project Area: Potential habitat for CAGR within Klamath County, Oregon west of Highway 97 was surveyed. Within this area it is estimated that approximately 6,000 acres of grassland, shrubland, and woodlands offer potential habitat for this species.

Project Design and Methods: Potential habitat within the target area was identified on aerial photos and with existing data. Areas identified were surveyed by a contractor using the “intuitive controlled” survey method and a complete survey method where applicable. Two surveys of each area were required: the first survey when the single basal leaf emerges in the spring; and the second survey when the flowering stalk emerges in the early summer.

Exact timing of surveys depended on elevation and associated climate. Location was recorded with a GPS unit and data recorded on field forms. Location and population data were entered into the GeoBOB corporate geodatabase. Surveys and field data recording were accomplished through a contract. Data entry into GeoBOB was accomplished by BLM staff.

Survey report from the contractor

Klamath River Canyon: The survey area consisted of 1000 acres in the Klamath River Canyon. The area was partially mixed conifer forest type with grasses, small shrubs, and forbs in the understory and partially white oak savannah with grasses, shrubs, and small forbs in the understory. The area ranges in steepness from very steep to nearly flat. The surveyed area is also very rocky in some areas, such as knolls and ridges. The flatter areas of the survey were not exceptionally rocky.

The water year has been below normal up to just before the time of the survey. Just before crews began their surveys, light to heavy rain began to fall and continued to fall for approximately three weeks. The area showed many signs of running water.

Many different vegetation types were evidenced. The higher elevation areas displayed a mixed conifer vegetation type with grasses, forbs, and small shrubs in the understory. On the southern side of the Klamath River, the northern exposures displayed the white oak savannah vegetation type, and on the northern side of the river, the southern exposures were similar. In

general, slopes facing the river were of the white oak savannah vegetation type. In addition, many of the areas in the survey were gently rolling and open meadows containing grasses and small forbs. Generally, these areas were at the lower elevations nearer the river.

Potential habitat for *Calochortus greenii*, which was evidenced in nearby surveys, was searched but no populations were evidenced. Potential habitat for *Perideridia erythrorhiza*, *Perideridia howellii*, and *Helianthus bolanderi*, which were noted in past and nearby surveys, was inspected, but no populations were found, possibly due to seasonality. Potential habitat for noxious weeds such as *Hypericum perforatum*, *Centaurea solstitialis*, *Conium maculatum*, *Rubus discolor*, and *Isatis tinctoria*, which were found in nearby and past surveys, was inspected, but no populations were noted, possibly due to seasonality. No special status plants or noxious weeds were found in the Klamath River Canyon portion of the survey.

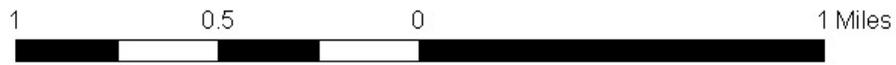
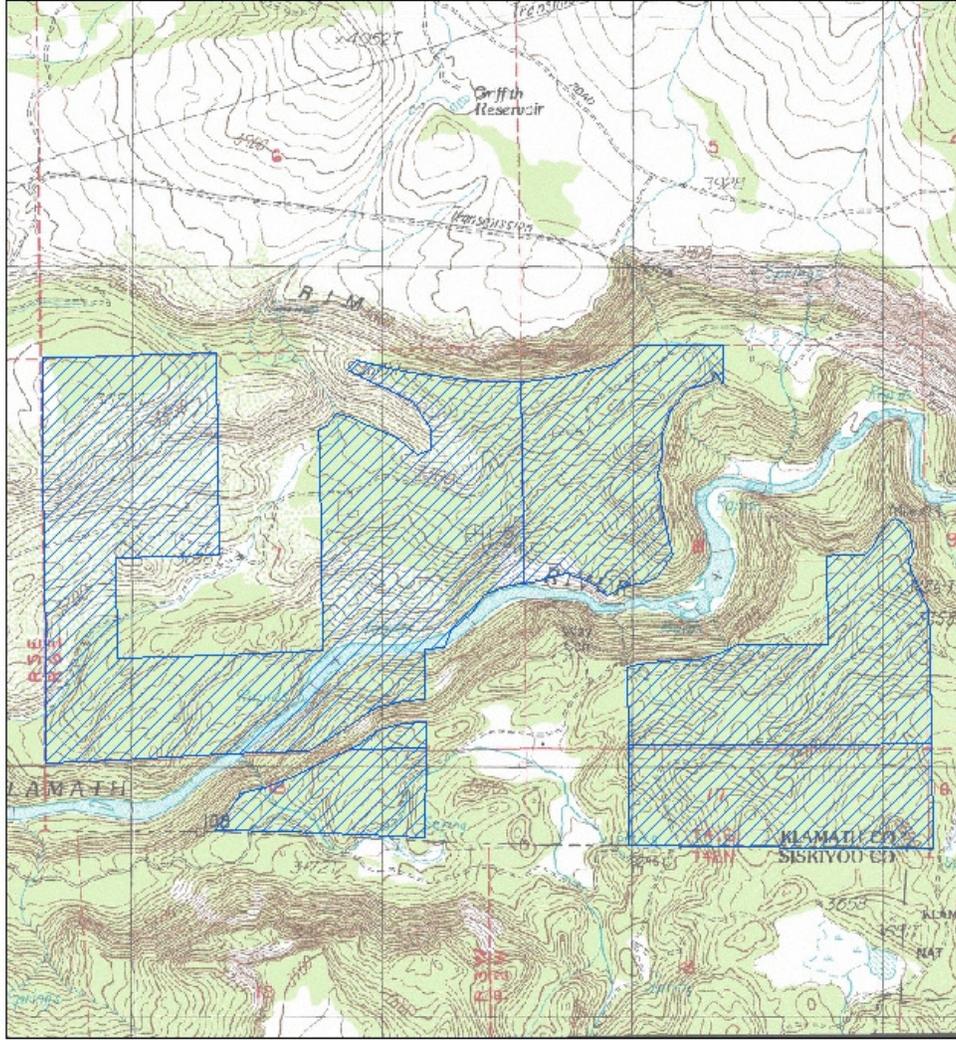
Grizzly Flat Area: The survey area consisted of 1885 acres in the Grizzly Flat area. The area was partially mixed conifer forest type with grasses, small shrubs, and forbs in the understory and partially white oak savannah with grasses, shrubs, and small forbs in the understory. The area ranges in steepness from very steep to nearly flat. The surveyed area is also very rocky in some areas, such as knolls and ridges.

The water year has been below normal up to just before the time of the survey. Just before crews began their surveys, light to heavy rain began to fall and continued to fall for approximately four weeks. The area showed many signs of running water.

Many different vegetation types were exhibited. The higher elevation areas displayed a mixed conifer vegetation type with grasses and small shrubs in the understory. The lower, wetter areas displayed white oak savannah vegetation type with grasses, forbs, and small shrubs in the understory. There were also many shrubby open areas, the majority of which contained some type of water. The flatter areas of the survey were very wet, in some areas water was flowing out of the ground. These areas were very rocky and where the water flowed slowly, populations of *Limnanthes floccosa* ssp. *bellengariana* were found. All populations were GPSed and mapped (see attached maps). Most of the surveyed area displayed recent signs of cattle.

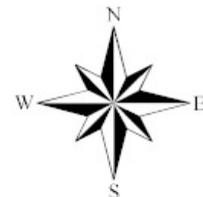
Potential habitat for special status plant *Calochortus greenii*, which was evidenced in nearby surveys, was inspected but no populations were found. Potential habitat for *Mimulus pygmaeus*, which was found in past surveys, was searched, but perhaps due to seasonality, no populations were found. Potential habitat for noxious weeds including *Hypericum perforatum* and *Centaurea solstitialis*, which were both found in past surveys, was searched, but possibly due to seasonality, no populations were noted. No other noxious weeds or special status plants were found in the Grizzly Flat portion of the survey.

Calochortus greenei Survey Klamath Canyon Unit

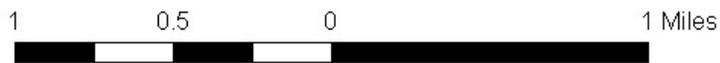
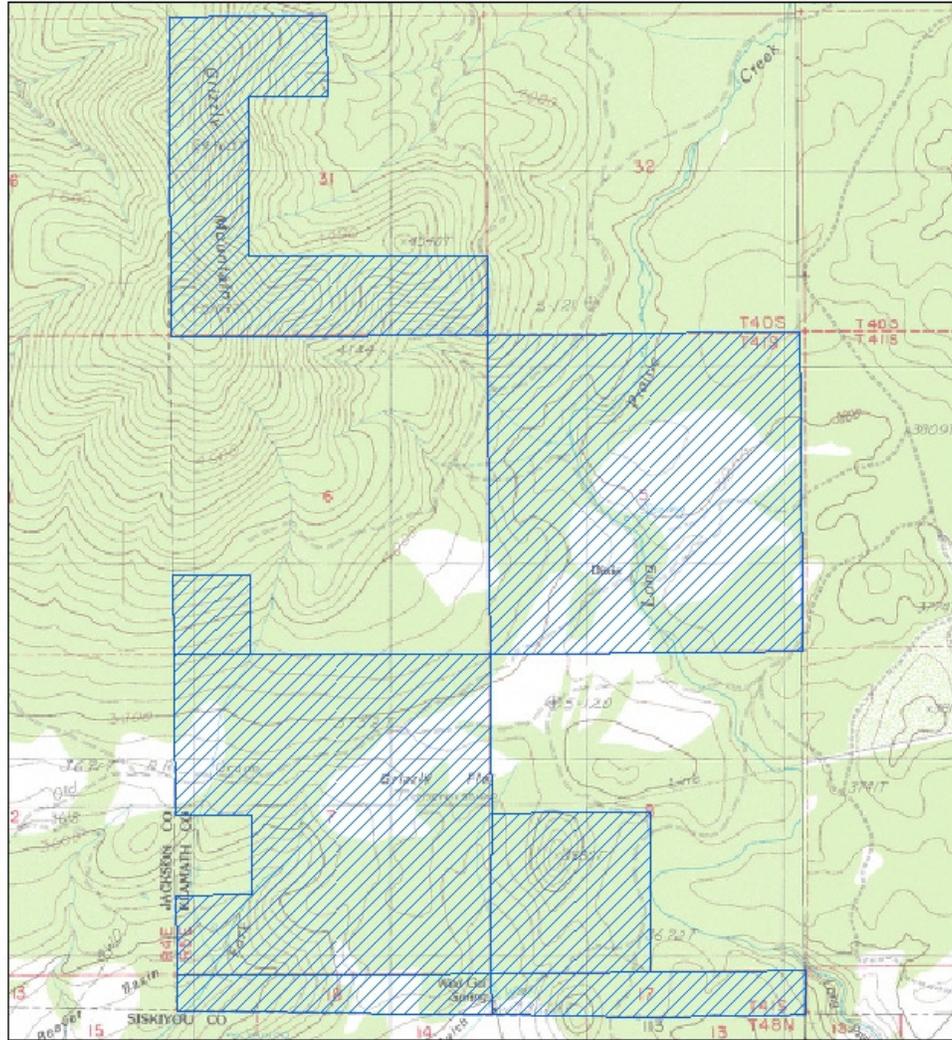


CAGR Survey Area

 CAGRSurvey2005



Calochortus greenei Survey Grizzly Mountain Unit



CAGR Survey Area

 CAGRSurvey2005

