

August 20, 2004

Mike Stettner
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Subject: Results of a Focused Plant Survey on the Elk Ridge Estates Site, Located in the City of Elk Grove, California

Dear Mike:

This report summarizes the results of a focused survey for special-status plants on the Elk Ridge Estates site. Special-status plants surveyed for on the site include: Bogg's Lake hedge-hyssop (*Gratiola heterosepala*), dwarf downingia (*Downingia pusilla*), legenera (*Legenere limosa*), and slender Orcutt grass (*Orcuttia tenuis*).

Site Location and Description

The Elk Ridge Estates site is located in the City of Grove, California; northwest of the intersection of Bond Road and Waterman Road. The site is within the Elk Grove USGS 7.5 minute quadrangle in Township 7 North, Range 6 East of the eastern ½ of Section 30 (**Figure 1**). The site consists of ±230 acres of land that is composed of annual grassland and seasonal wetlands. Land use surrounding the site is predominantly for residential development.

Species Status

The special-status plants surveyed for have one or more of the following designations: Federally Endangered (FE) or Federally Threatened (FT), as determined by the United States Fish and Wildlife Service (USFWS); State Rare (SR) or State Endangered (SE), as determined by the California Department of Fish and Game (CDFG); List 1B plants (Plants Rare, Threatened, or Endangered in California and Elsewhere) and List 2 plants (Plants Rare, Threatened, or Endangered in California but More Common Elsewhere) as determined by the California Native Plant Society (CNPS).

Habitat and Description

Bogg's Lake hedge-hyssop

Bogg's Lake hedge-hyssop (CE, List1B) is an herbaceous annual in the figwort family (Scrophulariaceae). This species is approximately two to ten centimeters tall. Each plant generally produces one or two tubular flowers with two yellow upper lobes and three white lower lobes. The flowering period for this species is April to August.

Bogg's Lake hedge-hyssop occurs in vernal pools, margins of marshes, swamps and shallow lakes primarily on saturated clay (adobe) soils. Less frequently, this species has been found on

loam and loamy sand soils. The elevation range for this species is 10 to 2375 meters. Bogg's Lake hedge-hyssop is threatened by agriculture, development, trampling, and off road vehicle activities.

Dwarf downingia

Dwarf downingia (List 2) is an herbaceous annual in the bellflower family (Campanulaceae). This species has lanceolate to awl-shaped leaves. The flowers are terminal; the upper lips three lobed with two minute yellow spots near the throat, the lobes are white to blue. The flowering period for this species is March to June.

Dwarf downingia occurs in vernal pools, valley and foothill grasslands, and roadside ditches. The elevation range for this species is 1 to 445 meters. Dwarf downingia is threatened by agriculture, development and off road vehicle activities.

Legenere

Legenere (List 1B) is an herbaceous annual in the bellflower family. This species sometimes forms mats with simple or branched stems that are weakly erect to decumbent. The flowers are borne individually within the leaf axils on long slender pedicels. The yellow to white tubular flowers are two lipped, with five small sepals. The flowering period for this species is April to June.

Legenere occurs in vernal pools or moist ground associated with vernal pools, marshes, lakes, ponds, and sloughs. The elevation range for this species is 1 to 880 meters (3 to 2887 feet). This species is threatened by grazing and development.

Slender Orcutt grass

Slender Orcutt grass (FT, CE, CNPS List 1B) is an herbaceous annual in the grass family (Poaceae). Slender Orcutt grass is blue-green in color and commonly hairy-glandular. Diagnostically, the glumes of this species have 3 to 5 teeth. The flowering period for slender Orcutt grass is May to October.

Slender Orcutt grass occurs in vernal pools. The elevation range for this species is 35 to 1760 meters. This species is seriously threatened by agriculture, development, competition from non-native plants, and off road vehicle activities.

Methods

Prior to conducting the survey, a California Natural Diversity Database records search for each of the target species was reviewed (**Figure 3**), as well as soil data (**Figure 2**) and aerial photography of the site. When possible and in accordance with guidelines for conducting botanical surveys set forth by USFWS and CNPS, a known reference location of the special-status plant species of concern was observed prior to conducting the survey in order to determine the condition and diagnostic characteristics of the target species. In all cases, taxonomic descriptions, ecological requirements and botanical illustrations and photographs were reviewed prior to conducting the survey. Additionally, in accordance with the CNPS Botanical Survey Guidelines, the survey was conducted by personnel with the following qualifications: experience with conducting floristic surveys; intimate knowledge of plant taxonomy and plant community

ecology and classification; familiarity with the plants of the area, including special-status and locally significant plants; familiarity with the appropriate state and federal statutes related to plants and plant collecting, and experience with analyzing impacts of project activities on native plants and plant communities

The survey was conducted during the species' peak flowering period which begins in April/May and extends to July, for optimal identification. The site was surveyed on foot to provide 100% search coverage with special attention given to the vernal pool habitat and soil types that represent potential habitat for the target species. A comprehensive botanical species list for all vascular plants observed on the site was produced (**Appendix A**).

References

The following available information pertaining to the natural resources of the region was reviewed for the survey and preparation of this report.

- California Department of Fish and Game (CDFG). 2004. *California Natural Diversity Database*. Sacramento, CA.
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- Mason, Herbert L. 1957. *A Flora of the Marshes of California*. University of California Press, Berkeley, CA.
- Nakamura, G. and Nelson, J. Eds. 2001. *Selected Rare Plants of Northern California*. University of California Agricultural and Natural Resources, Oakland, CA.
- U.S. Geological Survey. 1948. Photorevised 1978. *Clarksville, California 7.5 minute series topographic quadrangle*. United States Department of the Interior.
- Sawyer, J. and Todd Keeler-Wolf. 1995. *A Manual of California Vegetation*. California Native Plant Society, Sacramento, CA.
- <http://www.dfg.ca.gov>
- http://ecos.fws.gov/tess_public/TESSSpeciesReport

Results

A focused survey for Bogg's Lake hedge-hyssop, dwarf downingia, legenera, and slender Orcutt grass was conducted on the Elk Ridge Estates site with negative results. If you have any question, please contact me.

Sincerely,

Cristian J. Singer
Botanist
Resource Specialist

Appendix A – Botanical Survey Species List

Scientific Name	Common Name
<i>Achyrachaena mollis</i>	Blow-wives
<i>Alopecurus saccatus</i>	Foxtail
<i>Avena barbata</i>	Slender oat
<i>Briza minor</i>	Rattlesnake grass
<i>Brodiaea elegans</i>	Elegant brodiaea
<i>Bromus diandrus</i>	Ripgut grass
<i>Bromus hordeaceus</i>	Soft brome
<i>Callitriche</i> sp.	Water-starwort
<i>Carduus pycnocephalus</i>	Italian thistle
<i>Cotula coronopifolia</i>	Brass buttons
<i>Deschampsia danthonioides</i>	Annual hairgrass
<i>Downingia ornatissima</i>	Downingia
<i>Elatine</i> sp.	Waterwort
<i>Eleocharis macrostachya</i>	Spikerush
<i>Epilobium</i> sp.	Fireweed
<i>Erodium cicutarium</i>	Filaree
<i>Eremocarpus setigerus</i>	Turkey mullein
<i>Eryngium vaseyi</i>	Coyote thistle
<i>Geranium dissectum</i>	Cranesbill
<i>Gratiola ebracteata</i>	Hedge-hyssop
<i>Glyceria occidentalis</i>	Mannagrass
<i>Hemizonia fitchii</i>	Tarweed
<i>Holocarpha virgata</i>	Tar plant
<i>Hordeum marinum</i> ssp. <i>gussoneanum</i>	Mediterranean barley
<i>Hordeum murinum</i>	Barley
<i>Hypochaeris glabra</i>	Smooth cat's-ear
<i>Juncus bufonius</i>	Toad rush
<i>Juncus xiphioides</i>	Iris-leaved rush
<i>Lactuca serriola</i>	Prickly lettuce
<i>Lasthenia fremontii</i>	Fremont's goldfields
<i>Lasthenia glaberrima</i>	Smooth goldfields
<i>Lolium multiflorum</i>	Italian ryegrass
<i>Lythrum hyssopifolium</i>	Loosestrife
<i>Medicago</i> sp.	Burclover
<i>Navarretia leucocephala</i>	White-headed Navarretia
<i>Phalaris paradoxa</i>	Canary grass
<i>Phyla nodiflora</i>	Turkey tangle fogfruit
<i>Plagiobothrys stipitatus</i>	Popcorn flower
<i>Polypogon monspeliensis</i>	Rabbitfoot grass
<i>Psilocarphus brevissimus</i>	Woolly marbles
<i>Raphanus sativus</i>	Radish

Scientific Name	Common Name
<i>Ranunculus bonariensis</i> var. <i>trisepalus</i>	Buttercup
<i>Ranunculus aquatilis</i>	Water buttercup
<i>Rorripa curvisiliqua</i>	Water cress
<i>Rumex conglomeratus</i>	Common dock
<i>Rumex pulcher</i>	Fiddle dock
<i>Taeniatherum caput-medusae</i>	Medusahead
<i>Trichostema lanceolatum</i>	Vinegar weed
<i>Trifolium hirtum</i>	Rose clover
<i>Triteleia hyacinthina</i>	White brodiaea
<i>Triteleia laxa</i>	Ithuriel's spear
<i>Typha</i> sp.	Cattail
<i>Vulpia</i> sp.	Fescue
<i>Vicia sativa</i>	Hairy vetch
<i>Vicia villosa</i> ssp. <i>villosa</i>	Winter vetch