# E3. SPECIAL-STATUS PLANT SURVEY REPORT



MASTER MANAGEMENT PLAN UPDATE AND ASSOCIATED PARK IMPROVEMENT PROJECTS DRAFT ENVIRONMENTAL IMPACT REPORT



## Bidwell Park Proposed Disc Golf Course

# Special-Status Plant Survey



Prepared for: City of Chico

November 10, 2005



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А	Special-Status Plant Species Known to Occur or with Potential to Occur at the Proposed Disc Golf
	Course Study Area

- B Plant Species Observed at the Proposed Disc Golf Course Study Area
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## INTRODUCTION

This report describes the methods and results of special-status plant surveys for the Bidwell Park proposed disc golf course study area (hereafter referred to as "project site"). The project site consists of approximately 70 acres located on the west side of State Route (SR) 32 in Upper Bidwell Park (Exhibits 1 and 2). Upper Bidwell Park is located in the foothills of the Sierra Nevada/Cascade Range in Butte County, California. Butte County is located within the California Floristic Province, which is characterized by a Mediterranean climate with cool, wet winters and hot, dry summers. This part of Bidwell Park is dominated by rolling hills but the western portion of the project site is relatively flat. The incision made by Big Chico Creek as it flows towards the valley floor creates dramatic topographic relief characterized by a steep canyon flanked with rocky outcrops and cliffs. This steep, rocky canyon constitutes the northern and western boundaries of the project site and SR 32 constitutes the eastern boundary. The elevation of the project site ranges from approximately 960 to 1,310 feet above mean sea level. The project site is surrounded primarily by undeveloped land including the remainder of Upper Bidwell Park. The principal historic land use on the project site was cattle grazing.

Blue oak woodland and wildflower field are the predominant plant communities on the project site but annual grassland, interior live oak woodland, foothill pine chaparral, foothill pine oak woodland, mixed oak woodland, and vernal pools are also present. The location and extent of plant communities present in the study area is provided in Exhibit 3. Soils on the project site are derived from volcanic mud flows of the 4 million-year-old Tuscan Formation.

The purpose of the special-status plant surveys was to identify occurrences of special-status plants that could be disturbed as a result of disc golf activities at the project site. In summary, one occurrence of Butte County checkerbloom (*Sidalcea robusta*) consisting of 16 separate locations and one occurrence of Bidwell's knotweed (*Polygonum bidwelliae*) consisting of multiple locations were documented during the field surveys. Butte County checkerbloom is a California Native Plant Society (CNPS) List 1B species and Bidwell's knotweed is a CNPS List 4 species. The methods and results of the surveys are discussed in detail below.

## **PROJECT DESCRIPTION**

The disc golf course used today was established approximately in 1989 on approximately 40 acres of Bureau of Land Management (BLM) land along SR 32. In 1994, the City of Chico purchased the parcel from the BLM. In 1999, the Bidwell Park and Playground Commissions (BPPC) and City Council authorized the continued use of the site as a disc golf course pending environmental review.

The disc golf course currently consists of a short and long course with 39 "holes" in place over about a 25 acre area. The course offers no site improvements other than a few benches and tone poles. Parking to access this area is informal, located along an abandoned Caltrans right-of-way paralleling SR 32. The City of Chico Park Department is currently considering three conceptual alternatives for the development of an official disc golf course at the project site. These alternatives aim to accommodate disc golf as an acceptable recreational use within Upper Park while minimizing potential adverse effects on the site's sensitive biological, soils, cultural and aesthetic resources and accommodating other uses of the site such as scenic viewing, mountain biking, picnicking, and hiking.

## METHODS

### **PREFIELD INVESTIGATION**

A list of special-status plant species with potential to occur on the project site was compiled by performing database searches of the CNPS' Electronic Inventory of Rare and Endangered Vascular Plants of California





#### **Regional Location**

#### Exhibit 1





#### **Project Location**

(CNPS 2004) and California Department of Fish and Game's (DFG) California Natural Diversity Database (California Natural Diversity Database [CNDDB] 2004). The Chico, Paradise West, Richardson Springs, Cohasset, Hamlin Canyon, Nord, Campbell Mound, Ord Ferry, Paradise East, Stirling City, Cherokee, Llano Seco, Nelson, and Shippee U.S. Geological Survey (USGS) 7.5 minute quadrangles were included in the database searches. Additional information was obtained by reviewing previously prepared environmental documents that address biological resources in or near the project site (CSU 2000, Stuart 2002, Stuart 2003), local floras (Oswald 1986 and Oswald 1994), the Specimen Management System for California Herbaria (SMASCH), and the Friends of Bidwell Park website (Friends of Bidwell Park 2005).

In order to evaluate the site's potential to support special-status plant species, aerial photographs of the project site were reviewed and a reconnaissance-level survey of the project site was conducted to identify areas supporting potentially suitable habitat for special-status plant species. A survey package, including photographs of each target species and their preferred habitats, was prepared prior to the surveys to familiarize field crews with the characteristics and blooming periods of target plant species. Plant communities present at the site were mapped from aerial photograph interpretation and were ground truthed during field surveys. The plant community polygons were later digitized onto a Geographic Information System (GIS) overlay and used to create a map exhibit showing the location and extent of each plant community present on the project site. Plant community classification is based on the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986).

## FIELD SURVEYS

EDAW botanists Tammie Beyerl and Richard Dwerlkotte conducted focused special-status plant surveys on March 22 and 23, May 4 and 5, June 2, and July 7, 2005 for a total of approximately 106 person-hours. Field surveys were conducted by walking meandering transects throughout the project site. The protocol for the specialstatus plant surveys on the project site followed DFG's "*Guidelines for Assessing the Effects of Proposed Development on Rare, Threatened, and Endangered Plants and Plant Communities*" (DFG 2000), which involves using systematic field techniques in all habitats on the site to ensure thorough coverage of potential impact areas. All habitats present on the project site were surveyed thoroughly in order to properly inventory and document any potential occurrences of special–status plants present. Special attention was given to those areas supporting habitat with high potential to support special-status plant species such as vernal pools and wildflower fields. All plants encountered during the surveys were identified to the highest taxonomic level necessary for a rare plant determination. Nomenclature used follows the Jepson Manual: Higher Plants of California (Hickman 1993).

The locations of all special-status plants encountered were mapped by hand as either points or polygons onto aerial photographs of the project site (scale 1" = 350'). In addition, GIS coordinates were recorded for each location while in the field. These location points and polygons were later digitized onto a GIS overlay to produce a map of the distribution of special-status plants on the project site. Locations that were mapped separately from one another were distinguished based on spatial distribution, as well as differences in common associated species and habitat type. Notes on habitat, topography, aspect, phenology, and associated species of the special-status plant species identified were recorded on California Native Species Field Survey Forms to be submitted to the CNDDB upon completion of the final survey report. Representative photographs of the special-status plant species encountered on the project site were taken and will be submitted to the on-line CalFlora database.

# RESULTS

### **PREFIELD INVESTIGATION RESULTS**

Special-status plants are defined as plants that are legally protected or that are otherwise considered sensitive by federal, state or local resource conservation agencies and organizations. Special-status plant taxa are species,