

Appendix H

**Natural Environment Study,
State Route 32 Road Widening Project**

State Route 32 Widening Project
Chico, Butte County, CA
Caltrans District 3
Natural Environment Study



November 2006

Prepared for:

City of Chico
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STATE ROUTE 32 WIDENING PROJECT
 CHICO, BUTTE COUNTY, CALIFORNIA
 CALTRANS DISTRICT 3
 NATURAL ENVIRONMENTAL STUDY

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List of Abbreviated Terms

COE	Army Corps of Engineers
BCM	Butte County Meadowfoam
Caltrans	California Department of Transportation
CDFG	California Department of Fish and Game
City	City of Chico
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
EPA	U.S. Environmental Protection Agency
ESA	Environmentally Sensitive Area
ESL	Environmental Study Limits
kV	kilovolt(s)
NES	Natural Environment Study
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
Other Waters	Other Waters of the United States
RWQCB	Regional Water Quality Control Board
SR	State Route
USFWS	United States Fish and Wildlife Service

Executive Summary

The City of Chico (City), in conjunction with the California Department of Transportation (Caltrans), is proposing to widen a portion of State Route 32 (SR 32). A Biological Assessment and delineation of waters of the U.S. were performed in the Environmental Study Limit (ESL) on April 14 and 19, 2004; July 26, 2004; March 10, 14, and 24, 2005; and September 19, 2005 by Gallaway Consulting, Inc. to determine the presence of sensitive or biologically important natural resources within the ESL and whether or not these resources will be impacted by the proposed project.

The proposed project will widen and improve approximately 2.6 miles of SR 32 (approximately 45 acres), beginning at the southbound State Route 99 (SR 99) ramps at the west end of the project corridor and extending east past Yosemite Drive. Through the ESL from west to east, SR 32 transitions from a one-way city couplet (East 8th Street and East 9th Street) to a four-lane State highway to a two-lane State highway east of Forest Avenue. East of Chico, SR 32 continues into the foothills toward the town of Forest Ranch and points beyond. The City is investigating two alternatives at the intersection of Bruce Road and SR 32. The first alternative will include a signalized intersection and the second alternative is a roundabout.

Butte County Meadowfoam (*Limnanthes floccosa* ssp. *californica*, BCM), vernal pools and other wetland features were found on-site during surveys conducted within the ESL. Based on previous surveys in vernal pool habitats that are hydrologically connected to the vernal pools within the SR 32 widening ESL, *Lepidurus packardii* and *Branchinecta lynchi* are inferred to be present. *Branchinecta conserviato* is not known to occur in the area, and is not expected to occur. Seasonally, swallows, tree nesting raptors, and bald eagles (*Haliaeetus leucocephalus*) also have the potential to occur within the ESL. Measures will be taken to avoid impacts to nesting swallows and raptors. Bald eagles do not nest in the area; thus, no impacts are expected to occur. Dead Horse Slough and South Fork of Dead Horse Slough are not hydrologically connected to the Sacramento River or any other anadromous stream, thus anadromous fish will not be directly affected by the project. Construction will occur when the creek is dry, thus no direct or indirect impacts are expected to occur to anadromous fish. A giant garter snake (*Thamnophis gigas*, GGS) was sighted during a site visit in close proximity to Dead Horse Slough, therefore GGS habitat is assumed to exist within Dead Horse Slough and the South Fork Dead Horse Slough. Construction activities are being designed and will be scheduled to minimize impacts to GGS and GGS habitat.

Jurisdictional features occurring within the ESL will be impacted by the proposed project; 0.663 acre will be directly impacted, 0.906 acre will be indirectly impacted, 0.139 acre will incur temporary impacts. The delineation of waters of the U.S. was verified by the U.S. Army Corps of Engineers (COE) on January 17, 2006 (COE # 200501152). There are vernal pools and seasonal wetlands within, and in close proximity to the ESL that have the potential to support vernal pool invertebrates; 0.906 acre of this habitat will be indirectly impacted, and 0.274 acre will be directly impacted.

Butte County meadowfoam habitat occurs within the ESL. Approximately 0.0001 acre (2-square feet) of BCM and suitable habitat is expected to be directly impacted and 0.183 acre of BCM and suitable habitat are expected to be indirectly impacted, due to its proximity to construction (within 250 feet of construction activity). All indirect impacts will occur outside of the SR 32 right-of-way.

The proposed project also has the potential to directly affect GGS habitat and GGS during the widening of Bridge No. 12-0135 and lengthening or replacement of the box culvert east of Bruce

Road. Direct impacts will occur to 2.115 acres of upland habitat in the ESL and will result in 0.135 acre of impacts to the aquatic habitat . An additional 0.227-acre of temporary impacts have the potential to occur during the construction process.

Potential beneficial impacts from this project include reducing existing congestion and improving connectivity between the neighborhoods on either side of SR 32. There are also existing operational and safety concerns at the SR 99/SR 32 Interchange, which will be improved with the proposed project. Required approval and permits include a Streambed Alteration Agreement and a consistency determination from California Department of Fish Game (Fish and Game Code, Section 1600-1616 and Fish and Game Code, Section 2081 for impacts to state listed GGS and BCM), a water quality certification from the Regional Water Quality Board (Clean Water Act, Section 401), and a COE Individual permit (Clean Water Act, Section 404). The COE will complete Section 7 consultation with the U.S. Fish and Wildlife Service and will consult with State Historic Preservation Office for Section 106 compliance. Lastly, the City will be required to obtain a Bureau of Reclamation Encroachment Permit for work conducted in Dead Horse Slough and South Fork Dead Horse Slough. These permits/authorizations are required before the start of any work including excavation and construction activities.