

APPENDIX 10-A

ENVIRONMENTAL CONSTRAINTS METHODOLOGY

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ENVIRONMENTAL CONSTRAINTS METHODOLOGY

1.0 DATA COLLECTION

A literature review and baseline data assessment was conducted to identify the special-status species that could be present in the Deer Creek and Bear River systems. The following section describes the literature and Geographic Information System (GIS) databases reviewed.

A. Literature Review

The biological resources in the Deer Creek and Bear River systems were identified through a review of available planning and environmental documents. No fieldwork or independent field verification was performed for this analysis. The documentation reviewed includes, but is not limited to the following:

- Nevada County Natural Resources Report (Nevada County 2002);
- Placer County Natural Resources Report: A Scientific Assessment of Watersheds, Ecosystems and Species of the Phase I Planning Area (Jones & Stokes 2004);
- U.S. Fish and Wildlife Service (USFWS) Species List (USFWS 2005);
- NID Lower Cascade Canal/Banner Cascade Pipeline Project Administrative Draft EIR, May 2004 (NID 2004);
- Fate of Sediment Released from Combie Phase I Canal Reports (NID 2002, 2003);
- Biological Resources Assessment for the NID Cole Viet Irrigation Ditch Improvement Project (RBI 2004);
- Deer Creek Watershed Coordinated Resource Management Plan (Nevada County 2004); and,

- Upper Yuba River Studies Program (consistent with the CVPIA Anadromous Fish Restoration Program or AFRP objectives – restoration of the Central Valley anadromous fish populations to historic levels).

Other biological studies and literature completed in the project vicinity are referenced as appropriate throughout the text.

B. Baseline Data Assessment

Geographic Information System (GIS) data layers relevant to the project areas were also reviewed. This included a review of the following:

- Nevada County Natural Resources Report Database (Nevada County 2002);
- Placer County Natural Resources Report Database: A Scientific Assessment of Watersheds, Ecosystems and Species of the Phase I Planning Area (Jones & Stokes 2004);
- Nevada County Natural Heritage 2020 Database (Jones & Stokes 2004);
- Placer County Planning Department Geographic Information Division, Volume 1 and 2 (Placer County 2004);
- California Natural Diversity Database (CNDDB; (California Department of Fish and Game [CDFG] 2005);
- Electronic Inventory of Rare and Endangered Vascular Plant Species (CNPS 2005), and ,
- Wildlife Habitat Relationship System (WHR, CDFG 2005).

Data included within these GIS layers were compared with the locations of identified critical problem areas. Once known, potential canal improvements

could be better assessed to determine the likelihood of any environmental constraints and the necessity to comply with related regulatory processes.

2.0 METHODOLOGY

A. Vegetation Communities

Vegetation communities identified within the Deer Creek and Bear River systems were mapped based on the Nevada County Natural Resources Report and the Placer County Natural Resources Report. These documents provide an account of the distribution and characteristics of the Nevada and Placer county ecosystems as well as their plant and animals species. Vegetation communities in both of these reports were reviewed for each system using existing maps and aerial photographs. Vegetation communities that could be mapped at the watershed scale (i.e., continuous patches > 10 acres) with the potential for field verification were defined as “large-patch” ecosystems.

These were classified using the California Wildlife Habitat Relationship (CWHR) System, modified slightly to reflect the conditions of Nevada and Placer counties. The modifications that were made to form the Nevada County WHR System (NCWHR) and Placer County WHR (PCWHR) involved combining some related cover types (e.g., bitterbrush and sagebrush were combined to eastside scrub). The WHR was selected over other habitat classification systems because it is widely used by both foresters and wildlife biologists throughout California and is the system most easily understood by decision makers and the general public. The Nevada County and Placer County Natural Resources Reports are hereby incorporated into this document by reference.

B. Special-Status Species

Plant, fish, and wildlife species that have been afforded special recognition by federal, state, or local resource agencies and organizations are generally referred to as special-status species. Legal protection is afforded to species listed as “threatened” or “endangered” under the federal Endangered Species Act or “protected” under the California Fish and Game Code.

The US Fish and Wildlife Service has the authority to list rare, threatened and endangered plants, fish and wildlife. The California Department of Fish and Game (CDFG) has the authority to designate species as California Species of Special Concern. The CNPS is a private, non-profit organization that works closely with CDFG and maintains an inventory of rare and endangered plants throughout California. The California Natural Diversity Database (CNDDDB) is a program that inventories the status of rare plants and animals in California and maintains a database of GIS-mapped locations for these species of concern.

Special-status species as defined in this report include the following designations:

- species federally listed as endangered (FE) or threatened (FT);
- federal candidate species for listing (FC);
- federal species of special concern (FSC);
- species protected by the State of California as endangered (CE), threatened (CT) or rare (CR);
- state species of special concern (CSC); and,
- species identified by the California Native Plant Society (CNPS) as rare or, of limited distribution.

Through an electronic search of the CNDDDB and literature review, special-status plant, fish and wildlife species were identified as potentially occurring in the vicinity of the critical problem areas. Special-status species lists of vascular plants (Appendix 10-B) and wildlife (Appendix 10-C) were compiled based on the literature review noted above.