POTENTIAL RESOURCE ISSUE:

Protection of special-status plant populations.

PROJECT NEXUS:

Project operations and maintenance activities and potential Project betterments could result in removal or disturbance of special-status plant populations, including terrestrial, aquatic, and riparian plant species, and fungi and mosses.

POTENTIAL LICENSE CONDITION:

- Vegetation and Integrated Pest Management Plan
- Channel Riparian Maintenance Flows (CRMF)

STUDY OBJECTIVE:

- Document the location of special-status plants, fungi, and mosses at Project facilities, roads, trails, and recreation facilities where maintenance activities are implemented.
- Document the location of special-status plant species, fungi, and mosses along the shoreline of Project reservoirs and diversion pools.
- Document the occurrence of special-status riparian and aquatic species and mosses at quantitative geomorphic and riparian sampling sites in bypass reaches and the peaking reach. Document the location of special-status plant species, fungi, and mosses at potential Project betterment construction, staging and disposal sites, and new inundation areas.

EXTENT OF STUDY AREA:

The study area includes the following buffer areas around Project facilities, roads, trails and recreation facilities (Existing Project Facilities, Roads, Trails, and Recreation Facilities Table):

- 15 feet around the perimeter of the large reservoirs, medium reservoirs and diversion pools;
- 15 feet outside the perimeter fence of powerhouses, switchyards, and substations;
- 60 feet of gate houses, shafts, surge chambers, and adits;
- 60 feet of microwave reflectors;
- 20 feet on either side of penstocks;
- 20 feet on either side of communication lines;
- 35 feet on either side of powerlines;
- 15 feet on either side of roads;
- 150 feet around recreation facilities;
- 10 feet on either side of trails;

- 10 feet around dam; and
- 20 feet around Project support buildings.

The study area in bypass streams and the peaking reach include the quantitative geomorphic and riparian sampling sites (refer to Riparian Resources Technical Study Plan).

The survey area will be expanded to include buffer areas around potential Project betterment construction, staging and disposal sites, and new inundation areas (Potential Project Betterment Facilities Table, to be available at a later date). These include:

- 15 feet around the potential inundation area of large reservoirs where Project betterments are proposed;
- 300 feet around construction areas;
- 100 feet around staging areas; and
- 100 feet around disposal sites.

STUDY APPROACH:

A special-status plant is defined as any plant species that is granted protection by a federal, state, or local agency. Federally listed species granted status by the U.S. Fish and Wildlife Service (USFWS) under the Federal Endangered Species Act (ESA) include threatened (FT), endangered (FE), proposed threatened or endangered (FPT, FPE), candidate (FC), or listed species proposed for delisting (FPD). The U.S. Department of Agriculture-Forest Service (USDA-FS) maintains lists of Forest Service Sensitive (FSS) plants for each forest. State of California listed plant species, which are granted status by the California Department of Fish and Game (CDFG) under the California Endangered Species Act (CESA), include threatened (ST), endangered (SE), rare (SR), and California Species of Special Concern (CSC).

The study approach for special-status terrestrial plant and fungus species as well as aquatic, riparian and moss species is provided below.

Special-status Terrestrial Plants and Fungus Species

- Identify and map known occurrences of special-status terrestrial plant and fungus species within the study area, based on agency consultation and a review of existing information. Preliminary information is presented in the *Middle Fork American River Hydroelectric Project (FERC No. 2079) Draft Existing Resource Information Report, First Series* (PCWA 2006).
- Conduct focused special-status plant and fungus species surveys, according to the *Guidelines for Assessing the Effects of Proposed Project on Rare, Threatened, and Endangered Plants and Natural Communities* (CDFG 2000). Based on the blooming periods for plants known or potentially occurring within the Project vicinity, two surveys will be conducted, one in May and one in July.
- Collect Global Positioning System (GPS) information to document the occurrence of terrestrial special-status plant and fungus populations.

- Develop a Geographic Information System (GIS) map of special-status plant and fungus populations and overlay information on Project facilities, roads, trails, recreation facilities.
- Overlay special-status plant and fungus populations GIS information on potential Project betterment construction, staging and disposal sites, and new inundation areas.
- Prepare and submit California Native Species Field Survey Forms for all special-status plant and fungus populations recorded to California Natural Diversity Database (CNDDB).

Special-status Aquatic and Riparian Plants and Mosses

- Identify and map known occurrences of special-status aquatic and riparian plant species and mosses within the study area, based on agency consultation and a review of existing information. Preliminary information is presented in the *Middle Fork American River Hydroelectric Project (FERC No. 2079) Draft Existing Resource Information Report, First Series* (PCWA 2006).
- Conduct special-status aquatic and riparian plant surveys and collect moss specimens in quantitative geomorphic and riparian sampling sites in bypass reaches and the peaking reach. All moss specimens will be labeled with the date and collection location along the quantitative transects. Moss specimens will later be identified to species by a qualified bryologist
- Develop a GIS map of special-status aquatic and riparian plant populations and mosses and overlay information on bypass and peaking reach cross-sections.
- Overlay special-status aquatic and riparian plant and moss GIS information on potential Project betterment construction, staging and disposal sites, and new inundation areas. Prepare and submit California Native Species Field Survey Forms for all special-status aquatic and riparian plant species and mosses recorded to CNDDB.

SCHEDULE:

To be developed in early 2007.

REFERENCES:

California Department of Fish and Game (CDFG). 2000. *Guidelines for Assessing the Effects of Proposed Project on Rare, Threatened, and Endangered Plants and Natural Communities.*

Placer County Water Agency (PCWA). 2006. Middle Fork American River Hydroelectric Project (FERC No. 2079) Draft Existing Resource Information Report, First Series. June 2006.

 