

### POTENTIAL RESOURCE ISSUE:

Protection of special-status bat roosts.

### PROJECT NEXUS:

Project operations and maintenance activities and potential Project betterments could result in disturbance or removal of special-status bat roosts.

### POTENTIAL LICENSE CONDITION:

- Special-status bat protection measures

### STUDY OBJECTIVE:

- Document the location of special-status bat roosts at Project facilities and recreation facilities.
- Document the location of special-status bat roosts at potential Project betterment construction, staging, and disposal sites, and new inundation areas.

### EXTENT OF STUDY AREA:

The study area includes Project facilities and recreation facilities (Existing Project Facilities, Roads, Trails, and Recreation Facilities Table).

The study 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:

- Identify and map known occurrences of special-status bat populations based on agency consultation and a review of existing information. This information is presented in the *Middle Fork American River Hydroelectric Project (FERC No. 2079) Draft Existing Resource Information Report, First Series* (PCWA 2006).
- Survey Project facilities and recreation facilities to identify locations potentially supporting special-status bat roosts.
- Survey potential Project betterments construction, staging and disposal sites, and new inundation areas to identify locations potentially supporting special-status bat roosts.
- Conduct three focused roost surveys at locations identified as potentially supporting special-status bats during the summer reproductive season (June, August, and

## Special-status Bats Technical Study Plan

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September) when maternal colonies may be present. Each location will be searched for bats or bat sign (i.e., guano, characteristic staining, and culled insect parts). Any structure that cannot be thoroughly investigated to determine species present will be monitored at emergence time using mist netting and acoustic equipment (see below).

- Conduct the following additional surveys in those locations where active roosts are identified to determine species present:
  - Mist-netting: Mist-nets will be set up in appropriate locations where active roosts are identified. Captured bats will be identified to species. Other information taken will include sex, age (juvenile or adult), reproductive status, and forearm measurements. Captured bats will be released on-site and echolocation calls recorded at the time of release.
  - Acoustic sampling: Sampling of echolocation calls will be conducted using an Anabat II bat detector system (Tittley Electronics) to identify bat species. The Anabat system detects bat ultrasonic echolocation calls in the field and uses a z-caim unit to convert the detected signals into time/frequency (kilohertz (kHz)) graphs on a laptop computer. Acoustic units (Anabat bat detector, z-caim, and laptop) will be placed in appropriate settings to collect bat calls. Acoustic units will be operated from sunset until midnight.
- Develop a Geographic Information System (GIS) map of special-status bat roosts and overlay information on Project facilities, recreation facilities, 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 bats recorded to California Natural Diversity Data Base.

### SCHEDULE:

To be developed in early 2007.

### REFERENCES:

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