CHAPTER 4.0

ENVIRONMENTAL ANALYSIS

4.1. INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS

This chapter provides an integrated presentation of the affected environment, environmental consequences and mitigation measures for the identified issue areas. Potential effects of implementing the proposed project, including permanent, temporary (construction phase), and cumulative effects, are identified, along with mitigation measures recommended to lessen or reduce the identified impacts.

The affected environment describes the environment in the project area, as it exists before the commencement of the project. To be precise, the affected environment, which serves as the baseline for the impact analysis, is the environment as it existed on the date the Notice of Preparation was issued; February 20, 2002. The affected environment is presented from site, local, sub regional and/or regional perspectives, as appropriate to each environmental topic. Environmental consequences describe changes to the affected physical environment resulting from implementation of the proposed project or one of the project alternatives described in Chapter 3.

Environmental consequences may be either direct or indirect impacts, and direct and indirect impacts may also be described as either permanent or temporary in nature. These terms are defined as follows:

- **Direct impacts:** Any alteration, disturbance, or removal of resources that would result directly from project-related activities on the landscape is considered a direct impact. Examples of direct impacts include the removal of vegetation and the compaction of soils due to heavy equipment use.
- **Indirect impacts:** Impacts may also occur, not as a direct result of project actions, but indirectly as an unintentional consequence of project-related activities. Examples of indirect effects include elevated noise and dust levels in the vicinity of project actions that would affect wildlife behavior; the reduction of wildlife habitat contiguity due to new development; and the introduction of invasive wildlife and plants.
- **Permanent impacts:** All impacts that result in the irreversible changes are considered permanent. Examples include the loss of vegetation and wildlife habitat due to development. Permanent, direct impacts would be limited to the footprints of the developed area. Examples of permanent, indirect impacts would be ongoing maintenance actions or elevated noise in the project vicinity that would affect wildlife behavior in the project vicinity.

- **Temporary:** Any impacts considered to have reversible effects can be viewed as temporary. Examples of a temporary, direct impact would be the use of a construction equipment storage area that would recover to natural habitat after completion of the project. Examples of indirect, temporary impacts include the generation of noise and fugitive dust during construction that would affect wildlife behavior in the vicinity.
- **Cumulative:** Cumulative impacts result when the incremental effects of the project are considerable when viewed in connection with the effects of other past, present, and reasonably foreseeable projects producing similar effects, regardless of what agency, organization, or person undertakes such actions.

In this chapter, permanent, temporary, and cumulative impacts are discussed separately for each issue area. Environmental consequences (whether permanent, temporary, or cumulative) are identified and determined to be less than significant, potentially significant, cumulatively significant, or significant and unavoidable. For some issues, the discussion concludes that there are no environmental consequences of the project. According to CEQA *Guidelines* Section 15382, a significant impact is "… a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project…". For each issue area evaluated, criteria for significance have been developed using the questions posed in the Environmental Checklist found in *Appendix G of the CEQA Guidelines*, local (Trinity County or Shasta-Trinity National Forest) standards, or the "significance thresholds" of federal, state, regional, or local agencies. Significance criteria vary for each environmental issue analyzed and are defined at the beginning of each impact analysis section.

4.1.1. CUMULATIVE IMPACTS

The analysis of cumulative effects from the proposed Hyampom Road Improvement Project PM 6.8-8.3 considers the following approved or reasonably foreseeable projects in the area:

- The County is replacing a bridge over Hayfork Creek in Hayfork, approximately 8 miles upstream of the proposed project, in 2003. The CEQA and NEPA processes, including informal consultation with NOAA Fisheries have been completed for this project, and permit applications have been filed.

- An additional bridge replacement is planned by Caltrans approximately 6 miles upstream of the proposed project, at State Route 3 and Hayfork Creek in the town of Hayfork. This project is undergoing separate environmental review by Caltrans.

- A private bridge across Hayfork Creek has been approved by the Trinity County Planning Department, near Post Mile 2.0 on Hyampom Road. The private party will be required to obtain

permits from the U.S. Army Corps of Engineers and the California Department of Fish and Game unless the proposed bridge completely spans the Ordinary High Water Channel of Hayfork Creek.

- There are also several County and Federal road projects on Hyampom Road along Hayfork Creek planned for the next eight years. The County proposes improvement of Hyampom Road from State Route 3 to the U.S. Forest Service boundary at Mile 3.7. This project includes the rehabilitation, minor curve realignment, and minor widening from the intersection of SR 3 in Hayfork to the National Forest Boundary at Post Mile 3.7 in the summer of 2003. Widening will accommodate a wider shoulder for bicycles and pedestrians on one side from State Route 3 to Mile 1.0, where the Seventh Day Adventist School is located. The curve realignment will involve some cuts on mostly non-native grassland/pasture. The project is along Hayfork Creek on relatively flat terrain. The road profile will be raised at some locations to get it out of the floodplain. No fill will be placed within Hayfork Creek or adjacent riparian habitat, and no riparian vegetation associated with Hayfork Creek will be removed as a result of the project. No habitat for the northern spotted owl will be removed or disturbed as a result of construction of this project. Trinity County prepared a Mitigated Negative Declaration for this project on September 13, 2001. Significant environmental impacts were found to be mitigatable to less than significant levels (Trinity County Planning Department, 2001).

- The Federal Highway Administration (FHWA), Central Federal Lands Highway Division, (CFLHD), in cooperation with Shasta-Trinity National Forest and Trinity County, are planning major rehabilitation of the remaining segments of Hyampom Road between the Forest Boundary and the Bluffs at Post Mile 14.0 starting in 2006. FHWA is preparing a NEPA document, and conducting consultation with NOAA Fisheries and the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act. Scoping began in 2002, with a Federal Agency meeting and field review with NOAA, USFS, USFWS and CDFG on May 21, 2002, and public scoping meetings on August 26 and November 12, 2002. Environmental studies and preliminary design are ongoing. The project is located further from Hayfork Creek, but will involve some extensive cuts and fills to realign tight radius curves and to widen an existing one-lane section of Hyampom Road on nearly vertical terrain.

- The Merlo vineyard is proposing to start a wine storage and processing facility at the old mill camp site on Lower South Fork Road, near the confluence of Hayfork Creek and the South Fork of the Trinity River. Applications for a rezone and use permit have been initiated with the Trinity County Planning Department, and the vineyard hopes to have the facility in place in time for the October 2003 grape harvest season.

- A new resort in Hyampom, adjacent to the Hyampom Airport, has been approved by the Trinity County Planning Department. The resort proposes to cater to private pilots, providing eight temporary living accommodations adjacent to the airport, with a taxiway for private airplanes.

Other projects in the Hayfork Creek watershed that may affect resources in the project vicinity include timber harvest, dredge and placer mining, timber harvest incidental to mining activities, road maintenance, water diversion for domestic, agricultural and mining uses, and activities associated with private residences (i.e., grading, woodcutting, farming, etc.).

4.1.2. SETTING, IMPACTS, AND MITIGATION MEASURES SECTIONS

As required by CEQA, the setting describes the environment in the project and study areas "as it exists before the commencement of the project, or at the time the Notice of Preparation was circulated, February 20, 2002. The setting is presented from site, local, sub regional, and/or regional perspectives, as appropriate to each environmental topic. The effects of the project are defined as changes to the environmental setting that are attributable to the project.

Impacts are identified and determined to be less than significant, potentially significant, cumulatively significant, or significant and unavoidable. The cumulative impact analysis in this EIR is based on the implementation of the proposed project, as well as approved and anticipated development in the vicinity of the project area. A summary of cumulative impacts is provided in Chapter 7.0, *Other Statutory Considerations.*

Mitigation measures identified in this report fall into one of three categories: 1) necessary to reduce the identified impact below the level of significance; 2) capable of reducing the magnitude of a significant impact but not below the level of significance; and 3) recommended to reduce the magnitude of a less than significant impact. Where implementation of more than one mitigation measure is needed to reduce an impact below the level of significance, this fact is noted. Mitigation can include the following:

- **Avoiding** impacts altogether by not implementing an action or parts of an action.
- **Minimizing** impacts by limiting the degree or magnitude of an action.
- **Rectifying** impacts by repairing, rehabilitating, or restoring the impacted environment.
- **Reducing** or eliminating impacts over time by preservation and maintenance during the construction and/or operation of an action.
- **Compensating** for impacts by replacing or providing substitute resources or environments.

Where no impact is identified, or where an impact will be less than significant, mitigation is not required. However, in some instances mitigation measures are recommended for impacts that are less than

significant. Significant, unavoidable effects that cannot be fully mitigated are addressed in Chapter 7, *Other Statutory Considerations.* As noted in Chapter 7, the project is not expected to result in significant unavoidable effects.

Some proposed mitigation measures mitigate for impacts in more than one resource area. In such cases, the mitigation measure is discussed in detail under the first resource area discussed in the EIR, and then repeated in other resource areas. For example, mitigation measures addressing erosion are discussed in detail in Section 4.2, *Geology, Soils, and Seismicity*, but these measures also mitigate impacts to water quality and biological resources and are repeated in the sections discussing these resources (Sections 4.3 and 4.7, respectively). Mitigation measures are identified by the section in which they first appear.