3.10.2 Floodplains and Flooding

Executive Order 11988, Floodplain Management, was issued with the President's Environmental Message on May 2, 1977. The major requirements of this Executive Order are to avoid support of floodplain development; to prevent uneconomic, hazardous, or incompatible use of floodplains; to restore and preserve the natural and beneficial floodplain values; and to be consistent with the standards and criteria of the National Flood Insurance Program.

A floodway is the channel of a stream, including any adjacent areas, that must be kept free of encroachment so that a 100 year flood can be carried without substantial increase in flood heights. According to the Federal Emergency Management Agency (FEMA), an area that is designated as Zone A is a 100 year flood area. A 100 year flood is defined as a flood with a magnitude that is expected to be equaled or exceeded once on the average during any 100 year period, or a flood that has a one percent chance of occurring in any given year. The 100 year flood was adopted as the national standard by the Federal Insurance Administration (FIA) for floodplain management, and for insurance purposes.

3.10.3 Water Quality

In the past, some of the water quality problems that have occurred in Riverside County were related to inadequate subsurface sewage disposal, waste disposal management of the Santa Ana River, agricultural problems, such as citricultural runoff in the western county and increasing salinity of the desert groundwater basins, sediment buildup of water bodies from construction-related erosion, lake water quality problems, and "non-point" source pollution due to urban stormwater system runoff.

The Regional Water Quality Control Boards (RWQCBs) that oversee water quality in the County have determined that water supply plans and groundwater management are the most important components in water quality management planning. RWQCBs seek to protect the long-term beneficial uses of a region's water supply. To this end, they regulate the quality of water that can be discharged into a lake or stream or that is used to recharge a groundwater basin. The designated beneficial uses in the County are as follows:

- Municipal and domestic supply
- Industrial service supply
- Groundwater recharge
- Agricultural supply
- Hydropower generation
- Non-contact recreation
- Industrial process supply
- Freshwater replenishment
- Water contact recreation
- Commercial and sport fishing
- Cold freshwater habitat

- Wildlife habitat
- Aquaculture
- Limited warm freshwater habitat
- Rare, threatened, or endangered species
- Spawning, reproduction, and development
- Preservation of biological habitats of special significance

3.10.3.1 Steep Slopes

Hillside areas typically offer a variety of amenities, such as reduced densities, rural character, significant views of valleys and hills, and proximity to large natural open space areas. However, if land development or supporting infrastructure (such as the proposed CETAP alternatives) are improperly planned and designed, the very amenities that people seek as the benefits of hillside living can be damaged. In addition, the cumulative effects of improper hillside development can be significant destruction of an area's natural beauty, erosion, degradation of water quality, increased runoff and flooding problems, slope failures, fire hazards, high utility costs, lack of safe access for emergency vehicles, loss of sensitive biological habitats, and high costs for maintenance of public improvements.

Areas with steep slopes are a concern regarding water quality due to potential erosion. Unlike many areas of California, Riverside County's steep hillsides tend to rise abruptly from flat valley floors and high plateaus, and areas of gently rolling hills are limited. This pattern is the result of geologic structures dominated by a series of northwest-southeast trending fault systems. Figure 3.10.2 (Slope) identifies areas of steep slope in the County.

3.10.3.2 Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin

The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards are responsible for the protection and, where possible, the enhancement of the quality of California's waters. The SWRCB sets statewide policy, and together with the RWQCBs, implements state and federal laws and regulations. Each of the nine Regional Boards adopts a Water Quality Control Plan, or Basin Plan, that recognizes and reflects regional differences in existing water quality, the beneficial uses of the region's ground and surface waters, and local water quality conditions and problems.

The Santa Ana Region includes the upper and lower Santa Ana River watersheds, the San Jacinto River watershed, and several other small drainage areas. The Santa Ana Region covers parts of southwestern San Bernardino County, western Riverside County, and northwestern Orange County (SARWQCB, 1995).