3.0 ENVIRONMENTAL SETTING

This section provides a brief description of the current environmental conditions in the Los Osos Community Plan area.

3.1 REGIONAL AND LOCAL SETTING

The community of Los Osos is located in west-central San Luis Obispo County about midway between the San Francisco and Los Angeles metropolitan areas. The County includes a diversity of landscapes, from fertile coastal plains and valleys, to rolling hills and mountain ranges rising to over 4,000 feet. The mediterranean climate of the region produces moderate temperatures year round, with rainfall concentrated in the winter months. The region is subject to various natural hazards, including earthquakes, landslides, and wildfires.

Los Osos is approximately 4 miles south of the City of Morro Bay, across the bay/estuary, and approximately 10 miles west of the City of San Luis Obispo, at the western end of Los Osos Valley, a broad, relatively flat agricultural area formed by Los Osos Creek. The Los Osos urban area lies at the westerly end of the agriculturally productive Los Osos Valley. Los Osos is located at the south end of the Morro Bay estuary, recognized as one of the most important biological resources on the entire west coast of the United States. In addition to providing a resting place for dozens of species of migratory waterfowl, the Bay is a nursery to both marine and anadromous fish, and provides a forage and resting area for marine mammals. The coastal dunes that surround the community to the west (and upon which the community has developed) are one of the most sensitive—and threatened—environments in California. Species of plants that have adapted to the harsh coastal dune environment are among the most rare, with many occurring nowhere else on earth. The biological richness and sensitivity of the Morro Bay estuary have given rise to a number of conservation efforts. The Bay achieved Natural Estuary status, which affords a higher level of protection at the Federal, State and local levels.

The Morro Bay watershed stretches inland to the foothills of the Santa Lucia Range. Coastal creeks and their tributaries, including Los Osos, Warden, Chorro and Morro Creeks, support rich riparian plant and animal communities.

Los Osos is located on a series of ancient sand dunes in close proximity to the ocean. Development in Los Osos began in the late 19th century with the division of land into small residential lots intended for summer homes and retreats. The physical development pattern in much of Los Osos consists of long, narrow (25 to 50 feet by 125 feet) residential lots located on wide (40 to 80 feet) streets arranged generally in a grid.

3.1.1 Topographic Setting

Los Osos sits on a series of ancient dunes formed by centuries of wind-driven sand that accumulated at the south end of Morro Bay. The resulting topography is a series of gently-rolling hills stretching eastward from the Bay to the foothills of the Irish Hills. Although present day urban development masks the dynamic processes associated with dune formation; today the process continues, albeit at a much more arrested rate.

Stretching to the east from Morro Bay is a series of small peaks of volcanic origin, called Morros, which provide a unique scenic backdrop of regional significance. The westernmost morro, Morro Rock, guards the entrance to Morro Bay. The fertile soils of the Los Osos Valley, formed by the Morros to the north and the Irish Hills to the south, supports productive agricultural operations.

3.1.2 Hydrology, Water Quality and Water Resources

The community contains a variety of natural resources and environmental assets that define its character and contribute to its high quality of life. The eastern fringe of Los Osos near Los Osos Creek is an environmentally sensitive area. The creek and its riparian corridor are habitat to rare and endangered species, and land uses next to the creek affect the Morro Bay Estuary. Local features include the marshes and mud flats of the Morro Bay estuary and freshwater springs and creeks such as Los Osos Creek. Varied topography includes the massive volcanic rock formations of the Morros, the rolling to rugged terrain of the Irish Hills and San Luis Range and the relatively flat terrain of the narrow east-west-trending Los Osos Valley. Los Osos Creek runs south to north across the eastern portion of the community; it enters Morro Bay via the Morro Bay Salt Marsh.

Surface water features in the area include the Pacific Ocean, Morro Bay Estuary and Sweet Springs Marsh. Other surface water systems drain the hillsides and the surrounding farmland, namely Los Osos Creek, Warden Creek, Eto Creek, and several other unnamed, smaller tributaries. Warden Creek drains Los Osos Valley through Warden Lake, a marshy depression to the east of the community. Eto Creek is a well-defined waterway within the dune sands that drains to Eto Lake before reaching the ocean. Los Osos derives all of its drinking water from groundwater supplies. The nature of the groundwater system in the Los Osos area has been studied extensively since the Regional Board acted in 1988 to prohibit new septic systems. Generally, there are two distinct aquifers underlying the area, a more shallow aquifer that ranges in depth from 30 to 200 feet, and a deep aquifer, some 500 feet below the surface. The exact depth and shape of each aquifer is still under investigation.

Drainage which does not flow into Morro Bay and which does not evaporate is left to infiltrate into underlying aquifers. Near Morro Bay, these include a shallower aquifer located from approximately 30 feet to 200 feet below ground level, and a deeper aquifer located approximately 500 feet below the earth's surface.

The water quality of the shallow aquifer has been compromised by the historical presence of septic tank systems and other sources of nitrogen. The community has recently implemented a new communitywide wastewater treatment facility and collection system to address these issues.

3.1.3 Cultural Resources

The combination of mild coastal climate and abundant food and water resources made the Los Osos area an attractive location for native peoples. As a result, the entire Los Osos area is rich in artifacts of archaeological importance.

The Native American groups inhabiting the Morro Bay region during the ethnographic, or contact, period were speakers of the Obispeño language of the Chumash language family. These people apparently shared a greater number of cultural traits with their Salinan neighbors to the north than with their Chumash language-group relatives of the Santa Barbara Channel region to the south. Obispeño Chumash hunter-gatherers made a variety of stone, bone, and shell tools and used vegetal materials such as tule balsa for canoes, and various grasses and thatch for construction of houses and sweat-lodges. Population densities for the Morro Bay area were apparently relatively low, with native settlements consisting of seasonal settlement shifts from temporary camps to more centralized hamlets or villages. During the Mission Period, Native Americans from 19 coastal villages within a 20-mile radius of Morro Bay were relocated to the more interior Mission San Luis Obispo established in 1772.

3.1.4 Agricultural Resources

Although the Los Osos Community Plan Area does not include any lands designated for agricultural use, it is located within a productive agricultural region. Approximately 77 percent of the Estero Planning Area is designated for Agriculture and of that, an estimated 65 percent are in agricultural preserves and subject to land conservation contracts. Mixed irrigated and dry farm croplands occupy most of the valley lowlands, while grazing use predominates in the extensive hilly and mountainous areas. These uses are largely interrelated because much of the farmland produces irrigated and dry farm grain and hay for supplemental livestock feed. Substantial acreage of row crops, orchards, and garbanzo beans also occur in the area.

Agriculture in the San Luis Obispo area including Los Osos has been extensive since the introduction of livestock in the 1860s. Raising livestock on large land grants and some production of grain under dry-farming methods were the chief agricultural pursuits until about 1880. Rapid agricultural development occurred after 1880 due to the development of irrigation, affordable land, favorable crop yields, the advent of two railroads, and access to markets.

The broad, flat valley known as the Los Osos Valley is mostly devoted to dry farm barley and garbanzo bean production and includes the Coastal Zone for the western half of the valley. Flatlands subject to

poor drainage are commonly used as dry pasture. Row crops are grown in the Los Osos Valley bottomlands just east of the community of Los Osos.

3.2 CUMULATIVE PROJECTS SETTING

The State CEQA Guidelines require the analysis of the cumulative effects of a project in combination with other foreseeable development in the area.

CEQA Guidelines Section 15130 requires the consideration of cumulative impacts within an EIR when a project's incremental effects are cumulatively considerable. CEQA defines "cumulative impacts" as two or more individual events that, when considered together, are considerable or will compound other environmental impacts. Cumulative impacts are the changes in the environment that result from the incremental impact of development of the proposed project and other nearby projects. For example, traffic impacts of two nearby projects may be insignificant when analyzed separately, but could have a significant impact when analyzed together.

As allowed under Section 15130 of the State CEQA Guidelines, this EIR uses a summary of growth projections to analyze cumulative impacts. The evaluation of buildout under the LOCP in this EIR accounts for all of the expected growth in the Los Osos area, as it represents a growth blueprint for the entire Los Osos community in the context of the Estero Area Plan. Therefore, in general cumulative impacts evaluated in this EIR are considered the same as project-specific impacts. For certain issues, such as traffic and air quality, the cumulative condition accounts for regional growth and development that may affect the Los Osos community.

Cumulative impacts are discussed within each of the specific impact analysis discussions in Section 4.0, *Environmental Impact Analysis*.