

## 7.0 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

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### INTRODUCTION

The use of nonrenewable resources during the initial and continued phases of a proposed project may be irreversible if a large commitment of these resources makes their removal or nonuse thereafter unlikely. According to the *California Environmental Quality Act (CEQA) Guidelines*,<sup>1</sup> the irretrievable commitment of such resources is to be evaluated to ensure that their consumption by a proposed project is justified. In addition, this section must also identify any irreversible damage that can result from environmental accidents associated with the project.

### 7.1 IRREVERSIBLE COMMITMENT OF NON-RENEWABLE RESOURCES

Approval of the proposed discretionary actions for the project would allow for development of a retail commercial center on the 21-acre site. The primary effect of these actions would be to commit presently undeveloped lands to urbanized uses. The substantial investment required to construct the infrastructure and develop the property as proposed would represent a long-term commitment of the site to a planned retail commercial center. The commitment of nonrenewable resources resulting from the conversion of currently vacant land to urbanized uses is an irreversible environmental change.

In addition, construction and operation of the land uses would contribute to the incremental depletion of resources, including renewable as well as slowly or nonrenewable resources. Resources such as lumber and other forest products, as well as water, are generally considered renewable resources. Such resources would be replenished over the lifetime of the project. For example, lumber supplies are increased as seedlings mature into trees, while water supplies are replenished as water is redistributed through the action of the hydrologic cycle. Given this, the development of the project would not result in the irreversible commitment of renewable resources, although there would be an incremental increase in the demand for them over its lifetime.

On the other hand, slowly renewable and nonrenewable resources—such as natural gas, petroleum products, asphalt, petrochemical construction materials, steel, copper and other metals, and sand and gravel—are considered to be commodities that are in limited supply. The actions or processes that create these products occur over a long period of time and cannot replace those supplies consumed in the development and occupancy of the site within the project's lifespan. To varying degrees, the

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<sup>1</sup> California Public Resources Code, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15126.2(c).

forementioned materials are all readily available and some materials, such as asphalt or sand and gravel, are abundant. Other building materials and energy sources, such as metals, natural gas, and petroleum products, are also readily available, but are finite in supply given the length of time required by the natural process to create them.

The demand for all such resources is expected to increase regardless of whether the project is built out, as the City of Porterville is projected to add 9,525 new households by the year 2030.<sup>2</sup> The resources consumed by the project are to be used to house and power a commercial center offering goods and services to existing and future residents. These resources would likely be committed to other projects in the region intended to meet this demand even if the project were not constructed.

Further, the investment of resources in the project would be less than the level of investment normally required for a typical commercial center of this scale. No wasteful use of energy or construction resources would take place, as the proposed project has implemented a sustainable operating strategy. Walmart stores are equipped with energy management systems, which the Home Office in Bentonville can monitor and control. The energy management system enables Walmart to monitor energy usage and performance of each store, 24 hours per day, seven days per week. The proposed Walmart would also incorporate a daylighting system, which automatically and continuously dims all of the lights as the daylight contribution increases. Since most Walmart stores operate on a 24-hour basis, Walmart dims lighting to about 65 percent illumination during the late night hours.<sup>3</sup>

Walmart also utilizes super high-efficiency packaged heating, ventilation, and air conditioning (HVAC) units. While the industry standard energy efficiency ratio (EER)<sup>4</sup> is 9.0, Walmart's units are rated between 10.8 to 13.2, equating to efficiency ratings between 4 and 17 percent above that required by California Title 24.<sup>5</sup> Finally, the Walmart Supercenters capture waste heat from the refrigeration equipment to heat water for the kitchen preparation areas of the store. This represents energy savings of 165 million British thermal units (BTUs) per year.<sup>6</sup>

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<sup>2</sup> City of Porterville, *2030 General Plan*, Chapter 2, "Land Use Element," Table 2-3.

<sup>3</sup> Walmart, "Sustainable Buildings," <http://walmartstores.com/Sustainability/9124.aspx>, 2009.

<sup>4</sup> A ratio calculated by dividing the cooling capacity in BTUs per hour by the power input in watts at a given set of rating conditions, expressed in BTU per hour per watt.

<sup>5</sup> California Code of Regulations, California Energy Code, Title 24, Part 6, "California's Energy Efficiency Standards for Residential and Nonresidential Buildings."

<sup>6</sup> Walmart, "Sustainable Buildings," <http://walmartstores.com/Sustainability/9124.aspx>, 2009.

## 7.2 IRREVERSIBLE ENVIRONMENTAL CHANGES

Irreversible long-term environmental changes associated with the project would include a change in the visual and biological character of the site as a result of the conversion of undeveloped land to a commercial development. Additional irreversible environmental changes are associated with the increase in local and regional vehicular traffic, and the resultant increase in air pollutants and noise emissions generated by this traffic, among other impacts. The restoration of the site to predeveloped conditions after development would not be feasible given the level of capital investment and degree of disturbance needed to develop the properties in the first place. However, features have been incorporated into the project and mitigation measures are proposed in this EIR that would minimize or avoid the significant effects of the environmental changes associated with project to the maximum degree feasible.

## 7.3 POTENTIAL ENVIRONMENTAL DAMAGE FROM ACCIDENTS

The *State CEQA Guidelines*<sup>7</sup> require a discussion of the potential for environmental damage caused by an accident associated with the project. The following discussion identifies the characteristics of the site and proposed future uses that could be sources of potential accidents.

No unique hazards are found on site. The project site is located within a seismically active region and would be exposed to ground shaking in the event of a seismic activity. Conformance with the regulatory provisions of the City's Municipal Code<sup>8</sup> and the Uniform Building Code<sup>9</sup> pertaining to construction standards would minimize, to the extent feasible, damage and injuries in the event of such an occurrence.

The project site and most of metropolitan Porterville also lie in the dam inundation area of Lake Success.<sup>10</sup> Although the U.S. Army Corps of Engineers regularly inspects and maintains the dam, and dam failure is a rare occurrence in the state, flooding as a result of dam inundation is remotely possible.

Uses proposed by the project would be expected to use and store chemicals and substances that are typically found in urban settings. Federal, state, and local regulations govern the use and storage of such substances; therefore, the project is not expected to involve activities that would damage the environment or pose a risk to public health.

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<sup>7</sup> California Public Resources Code, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15126.2(c).

<sup>8</sup> City of Porterville, Municipal Code, Chapters 1-27 and Appendix A.

<sup>9</sup> California Code of Regulations, Title 24, Part 2, California Building Standards Commission, 2007.

<sup>10</sup> City of Porterville, *2030 General Plan*, Chapter 7, "Public Health and Safety Element," Figure 7-3, "Flood Hazards."