

SECTION 5: OTHER CEQA CONSIDERATIONS

5.1 - Significant Unavoidable Adverse Environmental Impacts

The California Environmental Quality Act (CEQA) Guidelines Section 15126.2(a)(b) requires an Environmental Impact Report (EIR) to identify and focus on the significant environmental effects of the Project, including effects that cannot be avoided if the Project were implemented.

This section describes significant impacts, including those that can be mitigated but not reduced to a level of less than significant. Where there are impacts that cannot be alleviated without imposing a Project alternative, their implications, and the reason why the Project is being proposed, notwithstanding their effect, is described. With implementation of the Project, three (3) significant impacts that cannot be avoided would occur. Each significant unavoidable impact is discussed below.

5.1.1 - Operational Exceedance of the SCAQMD's Regional Emission Thresholds

Operation of the Project would violate SCAQMD's regional emission thresholds for VOC, NO_x, CO, and PM₁₀ and result in a significant impact on a regional level even after mitigation. The Project may result in cumulative health effects from cumulative exposures from ozone, nitrogen dioxide, and PM₁₀.

5.1.2 - Cumulative Exceedance of the SCAQMD's Regional Emission Thresholds

Operation of the Project would result in a cumulatively significant impact even after mitigation because of the exceedances of the SCAQMD's regional emission thresholds for VOC, NO_x, CO, and PM₁₀. The Project may result in cumulative health effects from cumulative exposures from ozone and PM₁₀. The Project may result in cumulative health effects from cumulative exposures from ozone, nitrogen dioxide, and PM₁₀.

5.1.3 - Horizon Year 2030 Traffic Conditions

Freeway Ramp and Mainline Improvements – Adverse and Unavoidable

There are no additional ramp merge and diverge junctions anticipated to operate at unacceptable levels of service with the addition of Project traffic, with the exception of the SR-210 Westbound on-ramp at San Bernardino Avenue and the I-10 Eastbound off-ramp to the SR-210 Westbound (upstream only). It should be noted that the I-10 Eastbound off-ramp to the SR-210 Westbound is a freeway-to-freeway diverge junction and is anticipated to operate at LOS "F" due to the addition of background growth and cumulative traffic in conjunction with Project traffic.

With respect to the significant impacts to the State facilities (mainline and ramp junctions) at the 2030 time horizon, no further mitigation measures or improvements are recommended. The I-10 Freeway and SR-210 Freeway would operate at LOS "F" even without the Project under Horizon Year 2030 traffic conditions. The Project's contribution to cumulative impacts under 2030 conditions is

relatively minor, involving only a small percentage of the forecast traffic occurring on the identified segments at Horizon Year 2030 traffic conditions. Because the City has no control over State facilities, and because the State facilities funded and planned to be developed under 2030 conditions are already anticipated to operate at LOS “E” and “F” even without the Project, there are no further mitigation measures that can be imposed upon the Project to mitigate its small cumulative contribution to significant impacts to the identified segments of SR-210 Freeway and I-10 Freeway under 2030 conditions. Caltrans has exclusive control over State highway improvements and State highway improvements are by and large a matter of State-wide control. Thus, for the aforementioned reasons there are no available and feasible mitigation measures available to mitigate the Project’s minor cumulative contribution to traffic on the SR-210 and I-10 Freeways under Horizon Year 2030 traffic conditions. Therefore, impacts in this regard will be significant and unavoidable and a Statement of Overriding Considerations will be developed for the deficient Caltrans facilities.

Cumulative Impacts – Adverse and Unavoidable

Mitigation for the cumulative transportation impacts the Project will have on intersections is provided under Mitigation Measure TRANS 2. As such, the Project is required to pay its fair share/DIF amount of the improvement costs of the impacted intersections to mitigate the Project’s traffic impacts. Although these intersections may be improved, there are many uncertainties related to the timing of the full funding and completion of such improvements identified to maintain acceptable LOS in support of the Project. These uncertainties include payment of DIF fees/fair share payments by other development in the future, availability of non-DIF funding that may be available to the City in the future, and, for improvements located in County unincorporated areas, County decisions and funding availability for completing the necessary improvements. Due to these uncertainties, timely construction of improvements needed to address cumulative impacts cannot be guaranteed. Therefore, impacts in this regard will be significant and unavoidable and a Statement of Overriding Considerations will be developed.

5.2 - Growth Inducing Impacts

This section evaluates the potential for the Project to affect “economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment” (CEQA Guidelines, 15126.2[d]).

There are two types of growth inducing impacts a project may have, direct and indirect. To assess the potential for growth-inducing impacts, the Project characteristics that may encourage and facilitate activities that individually or cumulatively may affect the environment must be evaluated.

Direct growth-inducing impacts occur when the development of a project imposes new burdens on a community that directly induces population growth or the construction of additional developments in the same area of the Project, thereby triggering related growth-associated impacts. Included in this analysis are projects that would remove physical obstacles to population growth (such as a new road

into an undeveloped area or a wastewater treatment plant that could allow more construction in the service area). Construction of these types of infrastructure projects cannot be considered isolated from the development they trigger. In contrast, projects that physically remove obstacles to growth and projects that indirectly induce growth are those which may provide a catalyst for future unrelated development in an area (such as a new residential community that requires additional commercial uses to support residents).

Implementation of the Project will result in growth inducement indirectly through the construction of Project area circulation and the Project. However, the Redlands General Plan encourages the orderly outward expansion of new urban development that maintains the continuity of existing development and allows incremental expansion of infrastructure and public services. The Project does not introduce any new off-site arterials, collectors, or interchanges not already outlined in the General Plan. The Project does not introduce new public service facilities not already outlined in the General Plan and potable water will be supplied by the City. Thus, the Project is not introducing any new facilitation to growth inducement not already envisioned to be needed to accommodate planned future growth. The Project does not require an amendment to the Redlands General Plan nor a change to the Zoning Ordinance. Hence, while it is recognized that the Project will induce growth in the Project area, such growth is in concurrence with the City's planned growth policies and will not result in any potentially significant growth-inducing impacts.

5.3 - Significant Irreversible Environmental Changes

The environmental effects associated with the development of the Project are summarized in Table ES-1 and in Section 4, Project and Cumulative Impacts, of this document. Implementation of the Project will require a long-term commitment of land as discussed below. More specifically, if the Project is approved, and subsequently implemented, new structures would be built, additional utilities would be constructed, and circulation improvements would be made. Nonrenewable resources would be committed, primarily in the form of fossil fuels, and would include fuel oil, natural gas, and gasoline used by vehicles and equipment associated with the construction of the Project. The consumption of other nonrenewable or slowly renewable resources would result from development of the Project. These resources would include, but not be limited to, lumber and other forest products, sand and gravel, asphalt, petrochemical construction materials, steel, copper, lead, and water. Because alternative energy sources such as solar or wind energy are not currently in widespread local use, it is unlikely that a real savings in nonrenewable energy supplies (i.e., oil and gas) could be realized in the immediate future.

5.3.1 - Energy Conservation

Public Resources Code (PRC) Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted AB 1575, which created the California Energy Commission (CEC). The statutory mission of

the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct State responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended PRC Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines. Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth below, this EIR concludes that the Project will not result in the wasteful, inefficient, and unnecessary consumption of energy, will not cause the need for additional natural gas or electrical energy-producing facilities, and, therefore, will not create a significant impact on energy resources.

5.3.2 - Regulatory Setting

Federal and state agencies regulate energy use and consumption through various means and programs. At the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency U.S. EPA are three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. At the State level, the California Public Utilities Commission (CPUC) and the CEC are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards. California is exempt under federal law from setting State fuel economy standards for new on-road motor vehicles. Some of the more relevant federal and state energy-related laws and plans are discussed below.

Federal Energy Policy and Conservation Act

The Federal Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the United States (U.S.) would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the U.S. Department of Transportation, is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance

with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined on the basis of each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States. The Corporate Average Fuel Economy (CAFE) program, which is administered by United States Environmental Protection Agency, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The U.S. EPA calculates a CAFE value for each manufacturer, based on city and highway fuel economy test results and vehicle sales. On the basis of the information generated under the CAFE program, the U.S. Department of Transportation is authorized to assess penalties for noncompliance. In the course of its over 30-year history, this regulatory program has resulted in vastly improved fuel economy throughout the nation's vehicle fleet.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) such as ABAG were required to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values that were to guide transportation decisions in that metropolitan area. The planning process for specific projects would then address these policies. Another requirement was to consider the consistency of transportation planning with federal, state, and local energy goals. Through this requirement, energy consumption was expected to become a decision criterion, along with cost and other values that determine the best transportation solution.

The Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least

environmental and energy costs. To further this policy, the plan identifies a number of strategies, including providing assistance to public agencies and fleet operators, encouraging urban designs that reduce vehicle miles traveled, and accommodating pedestrian and bicycle access.

Title 24, Energy Efficiency Standards

Title 24, which was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, since the energy efficiency standards went into effect in 1978, it is estimated that California residential and nonresidential consumers have reduced their utility bills by at least \$15.8 billion. The CEC further estimates that by 2011, residential and nonresidential consumers will save an additional \$43 billion in energy costs.

In 2008, the CEC adopted new energy efficiency standards. All projects that apply for a building permit on or after January 1, 2010 must adhere to the new 2008 standards. A copy of the 2008 Energy Efficiency Standards may be reviewed online at www.energy.ca.gov/title24/2008standards/index/html. The 2008 Energy Efficiency Standards may also be reviewed at the Energy Efficiency Division, California Energy Commission, 1516 Ninth Street, MS-29, Sacramento, CA 95814-5512.

Because the adoption of Title 24 post-dates the adoption of AB 1575, it has generally been the presumption throughout the State that compliance with Title 24 (as well as compliance with the federal and state regulations discussed above) ensures that projects will not result in the inefficient, wasteful, and unnecessary consumption of energy. As is the case with other uniform building codes, Title 24 is designed to provide certainty and uniformity throughout the State while ensuring that the efficient and non-wasteful consumption of energy is carried out through design features. Large infrastructure transportation projects that cannot adhere to Title 24 design-build performance standards may, depending on the circumstances, undertake a more involved assessment of energy conservation measures in accordance with some of the factors set forth in Appendix F of the CEQA Guidelines. As an example, pursuant to the California Department of Transportation CEQA implementation procedures and FHWA Technical Advisory 6640.8A, a detailed energy study is generally only required for large-scale infrastructure projects. However, for the vast majority of residential and nonresidential projects, adherence to Title 24 is deemed necessary to ensure that no significant impacts occur from the inefficient, wasteful, and unnecessary consumption of energy. As a further example, the adoption of federal vehicle fuel standards, which have been continually improved since their original adoption in 1975, have also protected against the inefficient, wasteful, and unnecessary use of energy.

According to the CEC, reducing energy use has been a benefit to all. Building owners save money, Californians have a more secure and healthy economy, the environment is less negatively impacted, and our electrical system can operate in a more stable state. The 2008 Standards (for residential and nonresidential buildings) are expected to reduce the growth in electricity use by 561.2 gigawatt-hours

per year (GWh/y) and reduce the growth in natural gas use by 19 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 151.2 GWh/y of electricity savings and 3.3 million therms. Additional savings result from the application of the Standards on building alterations, outdoor lighting, and refrigerated warehouses. In particular, non-residential alteration requirements for cool roofs, insulation, and interior lighting are expected to save about 270.5 GWh/y of electricity. Outdoor lighting and refrigerated warehouse requirements are expected to save an additional 37.3 GWh/y of electricity. These savings will accumulate as the Standards affect each subsequent year of construction—doubling in two years, tripling in three, etc. Table 5-1 provides a summary of the electricity savings envisioned by the 2008 standards.

Table 5-1: Electricity Savings Projected From the 2008 Standards

Category		2005 Standard (GWh)	2008 Standard (GWh)	Savings (GWh)	Percent Reduction
Newly Constructed Buildings and Alterations	Single-Family	NA	NA	97.9	22.7
	Multi-Family	NA	NA	4.3	19.7
Newly Constructed Buildings	Nonresidential Heating	33.0	21.0	12.0	37.2
	Nonresidential Cooling	392.0	360.0	32.0	8.3
	Nonresidential Lights	822.0	726.0	96.0	11.7
	Nonresidential Fans	646.0	636.0	10.0	1.5
Alterations	Interior Lighting	NA	NA	186.0	NA
	Cool roofs and Insulations	NA	NA	84.5	NA
Newly Constructed Buildings	Refrigerated Warehouses	NA	NA	15.6	NA
	Outdoor Lighting	NA	NA	21.7	NA
Total		NA	NA	561.2	NA
Notes: GWh = Gigawatt hours NA = not applicable Refrigerated warehouses were previously unregulated Source: California Energy Commission, 2007.					

Since the California 2000–2001 electricity crisis, the CEC has placed greater emphasis on demand reductions. Changes in 2001 (following the electricity crisis) reduced electricity demand for newly constructed residential and nonresidential buildings by about 110.3 megawatts (MW) each year. Newly constructed nonresidential buildings account for 44.0 MW of these savings. Like energy

savings, demand savings accumulate each year. The 2008 Standards are expected to reduce electric demand by another 131.8 MW each year. Table 5-2 provides a summary of the demand savings envisioned by the 2008 standards.

Table 5-2: Demand Savings Projected From the 2008 Standards

Category		2005 Standard (MW)	2008 Standard (MW)	Savings (MW)	Percent Reduction
Newly Constructed Buildings and Alterations	Single-Family	NA	NA	33.5	8.2
	Multi-Family	NA	NA	3.1	7.4
Newly Constructed Buildings	Nonresidential Heating	1.0	1.0	38.2	—
	Nonresidential Cooling	215.0	195.0	9.3	—
	Nonresidential Lights	144.0	120.0	16.4	—
	Nonresidential Fans	136.0	132.0	2.9	—
Alterations	Interior Lighting	NA	NA	45.4	NA
	Cool roofs and Insulations	NA	NA	NA	NA
Newly Constructed Buildings	Refrigerated Warehouses	NA	NA	1.8	NA
	Outdoor Lighting	NA	NA	NA	NA
Total		NA	NA	131.8	NA
Notes: GWh = Gigawatt hours NA = not applicable Refrigerated warehouses were previously unregulated Source: California Energy Commission, 2007.					

In many parts of the world, the wasteful and poorly managed use of energy has led to oil spills, acid rain, smog, and other forms of environmental pollution that have ruined the natural beauty people seek to enjoy. California is not immune to these problems, but the CEC-adopted appliance standards, building standards, and utility programs that promote efficiency and conservation have gone a long way toward maintaining and improving environmental quality. Other benefits include reduced destruction of natural habitats, which, in turn, helps protect wildlife, plants, and natural systems.

Many experts believe that burning fossil fuel is a major contributor to global warming; carbon dioxide is being added to an atmosphere already containing 25 percent more than it did two centuries ago. Carbon dioxide and other greenhouse gases create an insulating layer around the Earth that leads to

global climate change. CEC research shows that most of the sectors of the State economy face significant risk from climate change, including agriculture, forests, and the natural habitats of a number of indigenous plants and animals.

Scientists recommend that actions be taken to reduce emissions of carbon dioxide and other greenhouse gases. While adding scrubbers to power plants and catalytic converters to cars are steps in the right direction (both of which are currently enforced as part of existing regulatory schemes), the use of energy-efficient standards can be effective actions to limit the carbon dioxide that is emitted into the atmosphere. According to the CEC, using energy efficiently, in accordance with Title 24 Energy Efficiency standards, is a proven, far-reaching strategy that can and does present an important contribution to the significant reduction of greenhouse gases.

Pursuant to the California Building Standards Code and the Title 24 Energy Efficiency Standards, the City will review the design and construction components of the Project's Title 24 compliance when specific building plans are submitted.

5.3.3 - Energy Requirements of the Project

Short-term construction and long-term operational energy consumption are discussed below.

Short-Term Construction

The U.S. EPA regulates nonroad diesel engines. The EPA has no formal fuel economy standards for nonroad (e.g., construction) diesel engines but does regulate diesel emissions, which indirectly affects fuel economy. In 1994, EPA adopted the first set of emission standards ("Tier 1") for all new nonroad diesel engines greater than 37 kilowatts (50 horsepower). The Tier 1 standards were phased in for different engine sizes between 1996 and 2000, reducing nitrogen oxide (NO_x) emissions from these engines by 30 percent. EPA has since adopted more stringent emission standards for NO_x, hydrocarbons, and particulate matter from new nonroad diesel engines. This program includes the first set of standards for nonroad diesel engines less than 37 kW. It also phases in more stringent "Tier 2" emission standards from 2001 to 2006 for all engine sizes and adds yet more stringent "Tier 3" standards for engines between 37 and 560 kW (50 and 750 hp) from 2006 to 2008. These standards will further reduce nonroad diesel engine emissions by 60 percent for NO_x and 40 percent for particulate matter (PM) from Tier 1 emission levels. In 2004, EPA issued the Clean Air Nonroad Diesel Rule. This rule will cut emissions from nonroad diesel engines by more than 90 percent, and it will take effect beginning in 2008 and will be fully phased in by 2014. These emission standards are intended to promote advanced clean technologies for nonroad diesel engines that improve fuel combustion, but they also result in slight decreases in fuel economy.

There are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the State. Therefore, it is expected that construction fuel consumption associated with the Project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region.

Long-Term Operations

Transportation Energy Demand

Vehicle fuel efficiency is regulated at the federal level. Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration is responsible for establishing additional vehicle standards and for revising existing standards. As discussed above, since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined on the basis of each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States.

The proposed development is projected to generate a total of approximately 19,481 net trip-ends per day on a typical weekday, 22,907 net trip-ends per day on a Saturday and approximately 18,820 net trip-ends per day on a Sunday. The Project is anticipated to generate a total of approximately 1,402 net weekday PM peak hour trips and 1,941 net Saturday peak hour trips.

As indicated in the Urban Decay Analysis prepared for the Project by The Natelson Dale Group, Inc., the Project would primarily serve customers living in Redlands area. However, many of the Project's customers currently shop at the existing Walmart store. Therefore, the diversion of these trips to the Project would not result in substantial changes in overall fuel consumption in Redlands.

Building Energy Demand

Southern California Edison provides electricity to approximately 50,000 square miles of Southern California, including the City of Redlands. SCE obtains electricity from a variety of sources including its own generation plants and purchased power from outside sources. The Project can promote building energy efficiency through compliance with energy efficiency standards and the provision of energy efficiency measures that exceed required standards. These energy conservation measures are listed below.

- **Daylighting System:** The Redlands Crossing Walmart would include a daylighting system (skylights, electronic dimming ballasts, computer controlled daylight sensors, etc.), which automatically and continuously dims all of the lights as the daylight contribution increases.
- **Night Dimming:** The Redlands Crossing Walmart would include lighting that would dim to approximately 75 percent illumination during the late night hours.
- **Super High Efficiency Heating, Ventilation, and Air Conditioning (HVAC) units:** The new HVAC units would be super high efficiency with a weighted Energy Efficiency Ratio of 12.1 to 14.3, which is 4 to 17 percent more efficient than required by Title 24 energy efficiency standards.

- **Central Energy Management:** The Redlands Crossing Walmart would continue to employ an energy management system that is monitored and controlled from the Walmart corporate headquarters located in Bentonville, Arkansas. This energy management system enables corporate headquarters to monitor energy usage, analyze refrigeration temperatures, and observe HVAC and lighting performance. It also allows corporate headquarters to adjust lighting, temperature, or refrigeration set points from a central location.
- **Water Heating:** The new grocery area would capture waste heat from the refrigeration equipment to heat water for the kitchen prep areas of the store.
- **White Roofs:** The Redlands Crossing Walmart would employ a white membrane roof. The high solar reflectivity of this membrane results in lowering the cooling load by approximately 10 percent.
- **Interior Lighting Retrofit Program:** All lighting in the store would utilize T-8 fluorescent lamps and electronic ballasts, which are the most efficient lighting on the market.
- **Light Emitting Diode (LED) Signage Illumination:** All internally illuminated building signage would use LED lighting. With lamp life ranging to 100,000 hours, using LEDs significantly reduces the need to manufacture and dispose of fluorescent lamps.
- **Low-flow Faucet:** Restroom sinks would use sensor-activated, low-flow faucets. The low flow faucets would reduce water usage by 77 percent, while the sensors, which regulate the amount of time the faucets flow, would save approximately 20 percent in water usage over similar, manually operated systems. Urinals would use 0.125 gallon per flush, for a savings of approximately 87.5 percent and toilets would use 1.28 gallons per flush, for a savings of approximately 25 percent.

Collectively, these design features and mitigation measures would ensure that the Project would not result in the inefficient, unnecessary, or wasteful consumption of energy.

