4.5 UTILITIES AND INFRASTRUCTURE

This section evaluates the availability of existing utility and infrastructure systems (water, wastewater, stormwater, electricity, and natural gas) to serve the Resources Building Replacement Project and the impact of the project on these systems. The analysis is based on documents obtained from the City of Sacramento and the Sacramento Regional County Sanitation District (Regional San), and personal communications with representatives of the City, Regional San, Sacramento Municipal Utility District (SMUD), and Pacific Gas and Electric Company (PG&E).

4.5.1 Regulatory Background

DOMESTIC WATER

Federal Plans, Policies, Regulations, and Laws

Safe Drinking Water Act

As mandated by the Safe Drinking Water Act (Public Law 93-523), passed in 1974, the U.S. Environmental Protection Agency (EPA) regulates contaminants of concern to domestic water supply. Such contaminants are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by EPA primary and secondary maximum contaminant levels (MCLs). MCLs and the process for setting these standards are reviewed every three years. Amendments to the Safe Drinking Water Act enacted in 1986 established an accelerated schedule for setting drinking water MCLs. EPA has delegated responsibility for California's drinking water program to the State Water Resources Control Board Division of Drinking Water (SWRCB-DDW). SWRCB-DDW is accountable to EPA for program implementation and for adoption of standards and regulations that are at least as stringent as those developed by EPA.

State Plans, Policies, Regulations, and Laws

Urban Water Management Plan

In 1983, the California Legislature enacted the Urban Water Management Planning Act (UWMPA) (California Water Code Sections 10610–10656). The UWMPA states that every urban water supplier that provides water to 3,000 or more customers, or that provides more than 3,000 acre-feet (af) of water annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. This effort includes the adoption of an Urban Water Management Plan (UWMP) by every urban water supplier and an update of the plan every 5 years on or before December 31, of every year ending in a five or zero. The UWMPA has been amended several times since 1983 with the most recent amendment occurring with Senate Bill (SB) 318 in 2004. The UWMPA and SB 610, described below, are interrelated; the UWMP is typically relied upon to meet the requirements for SB 610.

The City of Sacramento 2015 UWMP, adopted in June 2016, is based on the Sacramento 2035 General Plan.

California Safe Drinking Water Act

The SWRCB-DDW is responsible for implementing the federal SDWA and its updates, as well as California statutes and regulations related to drinking water. State primary and secondary drinking-water standards are promulgated in California Code of Regulations (CCR) Title 22, Sections 64431–64501.

The California Safe Drinking Water Act (CA SDWA) was passed in 1976 to build on and strengthen the federal SDWA. The CA SDWA authorizes the California Department of Health Services to protect the public

from contaminants in drinking water by establishing MCLs that are at least as stringent as those developed by EPA, as required by the federal SDWA.

Local Plans, Policies, Regulations, and Laws

The project is located on State-owned property, has been authorized and funded by the State of California through the State Projects Infrastructure Fund, and would be implemented by the California Department of General Services (DGS). As explained in Section 4.2 "Land Use" of this EIR, in the discussion of "Local Plans, Policies, Regulations, and Laws" in Section 4.2.1, State agencies are not subject to local plans, policies, and zoning regulations. Nevertheless, in the exercise of its discretion, DGS does reference, describe, and address local plans, policies, and regulations that are applicable to the project. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

Water Service System and Fees

Chapter 13.04 of the City Code regulates construction of water distribution facilities; describes requirements for installation and phasing of water meters; establishes the review process for ensuring adequate fire flow and hydrants; and identifies that rates, fees, and charges for sewer service and storm drain service are established and will be updated from time to time by ordinance or resolution of the City Council.

City of Sacramento 2035 General Plan

The following goals and policies from the Sacramento 2035 General Plan Utilities Element relate to water supply and infrastructure.

Goal U 2.1 High-Quality and Reliable Water Service. Provide water supply facilities to meet future growth within the City's Place of Use and assure a high-quality and reliable supply of water to existing future residents.

- **Policy U 2.1.9 New Development.** The City shall ensure that water supply capacity is in place prior to granting building permits for new development.
- **Policy U 2.1.12 Water Conservation Enforcement.** The city shall continue to enforce City ordinances that prohibit the waste or runoff of water, establish limits on outdoor water use, and specify applicable penalties.
- **Policy U 2.1.14**: Rain Capture. The City shall promote the use of rain barrels and rain gardens to conserve water, while not increasing the occurrence of disease vectors.
- **Policy U 2.1.15 Landscaping.** The City shall continue to require the use of water-efficient and river-friendly landscaping in all new development, and shall use water conservation gardens (e.g., Glen Ellen Water Conservation Office) to demonstrate and promote water conserving landscapes.
- **Policy U 2.1.16 River-Friendly Landscaping.** The City shall promote "River Friendly Landscaping" techniques which include the use of native and climate appropriate plants; sustainable design and maintenance; underground (water-efficient) irrigation; and yard waste reduction practices.

WASTEWATER AND STORMWATER

Federal Plans, Policies, Regulations, and Laws

Clean Water Act

The Clean Water Act (CWA) employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. Those portions of the CWA that relate to wastewater and stormwater discharges are discussed below.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established under the CWA to regulate municipal and industrial discharges to surface waters of the US. NPDES permit regulations have been established for broad categories of discharges including point source waste discharges and nonpoint sources (nonpoint source discharges are further discussed in Section 4.10, "Hydrology and Water Quality"). Each NPDES permit identifies limits on allowable concentrations and mass loadings of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that EPA must consider in setting effluent limits for priority pollutants.

NPDES permits cover various industrial and municipal discharges, including discharges from storm sewer systems in larger cities, stormwater generated by industrial activity, runoff from construction sites disturbing more than 1 acre, and mining operations. Point source dischargers must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). So-called "indirect" point source dischargers are not required to obtain NPDES permits. "Indirect" dischargers send their wastewater into a public sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering any surface water.

The CWA was amended in 1987 with Section 402(p) requiring NPDES permits for nonpoint source (i.e., stormwater) pollutants in discharges. Stormwater sources are diffuse and originate over a wide area rather than from a definable point. The goal of the NPDES stormwater regulations is to improve the water quality of stormwater discharged to receiving waters to the "maximum extent practicable" using structural and nonstructural best management practices (BMPs). BMPs can include educational measures (e.g., workshops informing the public of what impacts can result when household chemicals are dumped into storm drains), regulatory measures (e.g., local authority of drainage-facility design), public-policy measures (e.g., labeling storm-drain inlets as to impacts of dumping on receiving waters) and structural measures (e.g., filter strips, grass swales, and detention ponds).

State Plans, Policies, Regulations, and Laws

NPDES Permit for the Sacramento Regional Wastewater Treatment Plant

In April 2016, the Central Valley RWQCB issued WDR Order No. R5-2016-0020 (NPDES No. CA 0077682) to the Regional San for its Sacramento Regional Wastewater Treatment Plant (SRWTP), which treats wastewater from its service area before discharging it to the Sacramento River. The original permit for the SRWTP was issued in October 1974. This is an NPDES self-monitoring permit that outlines performance standards for the effluent into the Sacramento River. The water quality objectives established in the Central Valley RWQCB Basin Plan are protected, in part, by NPDES Permit No. CA 0077682.

The quality of the effluent that can be discharged to waterways within the Sacramento area is established by the Central Valley RWQCB through waste discharge requirements (WDRs) that implement the NPDES permit. WDRs are updated at least every 5 years. A new permit must be issued in the event of a major change or expansion of the facility.

NPDES Permit for the Combined Sewer System

In April 2015, the Central Valley RWQCB issued WDR Order No. R5-2015-0045 (NPDES No. CA 0079111) to the City of Sacramento for its Combined Wastewater Collection and Treatment System (Central Valley RWQCB 2015). The system was previously regulated by Order R5-2010-0004, which expired on January 1, 2010. Depending on flow volumes, wastewater and stormwater flows in this system are conveyed to the SRWTP, combined wastewater treatment plant (CWTP) at South Land Park Drive and 35th Avenue, and Pioneer Reservoir at Front and V streets near the Sacramento River. The Order does not apply to operations at SRWTP.

This Order implements the U.S. EPA combined sewer overflow (CSO) Control Policy, which establishes a consistent national approach for controlling discharges from CSOs to the nation's water through the NPDES

permit program. This policy requires implementation of a long-term control plan (LTCP) to comply with water quality-based requirements of the CWA. The City of Sacramento adopted their LTCP, also known as the Combined Sewer System Improvement Plan (CSSIP), in 1995, which contained the infrastructure improvement portion of the LTCP.

WDR Order No. R5-2015-0045 identifies effluent limitations and discharge specifications for discharges from the CWTP and Pioneer Reservoir to the Sacramento River. Discharge from the system to surface waters or surface water drainage courses is prohibited during non-storm events. However, in the event that the capacity of the system is exceeded during a storm event, this Order allows for the discharge of overflows into the Sacramento River. The City is required to implement pollution prevention programs to reduce contaminants in CSOs.

Local Plans, Policies, Regulations, and Laws

City of Sacramento Combined System Development Fee

An ordinance amending Chapter 13.08 of the City of Sacramento Code relating to sewer and storm-drain service systems and establishing combined sewer system (CSS) development fee amounts was approved by the City's Law and Legislation Committee on February 15, 2005, and was passed for publication on February 22, 2005. This fee requires new connections to the CSS to pay a development fee to recover an appropriate share of the capital costs of the CSS facilities needed to accommodate new development in the CSS area.

Sacramento Regional County Sanitation District Consolidated Ordinance

The Regional San Consolidated Ordinance sets forth requirements for use of its wastewater collection and treatment system, provides for the enforcement of these requirements, establishes penalties for violations, and establishes the rates and fees for users of Regional San's sewer facilities.

Stormwater Quality Design Manual

See Section 4.10, "Hydrology and Water Quality," for a description of the Stormwater Quality Design Manual.

City of Sacramento 2035 General Plan

The following goals and policies from the Sacramento 2035 General Plan Utilities Element relate to stormwater and wastewater management.

Goal U 1.1: High-Quality Infrastructure and Services. Provide and maintain efficient, high quality public infrastructure facilities and services in all areas of the city.

- **Policy U 1.1.5: Growth and Level of Service.** The City shall require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

Goal U 3.1 Adequate and Reliable Sewer and Wastewater Facilities. Provide adequate and reliable sewer and wastewater facilities that collect, treat and safely dispose of wastewater.

- **Policy U 3.1.4:** In keeping with its CSS Long Term Control Plan (LTCP), the City will continue to rehabilitate the CSS to decrease flooding, CSS outflows and CSOs. Through these improvements and new development requirements the City will also insure that development in the CSS does not result in increased flooding, CSS outflows or CSOs.

Goal U 4.1 Adequate Stormwater Drainage. Provide adequate stormwater drainage facilities and services that are environmentally sensitive, accommodate growth, and protect residents and property.

- **Policy U 4.1.5 Green Stormwater Infrastructure.** The City shall encourage "green infrastructure" design and Low Impact Development (LID) techniques for stormwater facilities (i.e., using vegetation and soil to

manage stormwater) to achieve multiple benefits (e.g., preserving and creating open space, improving runoff water quality).

- **Policy U 4.1.6 New Development.** The City shall require proponents of new development to submit drainage studies that adhere to City stormwater design requirements and incorporate measures, including "green infrastructure" and Low Impact Development (LID) techniques, to prevent on- or off-site flooding.

ENERGY

Federal Plans, Policies, Regulations, and Laws

No federal plans, policies, regulations, or laws are applicable to energy for the project.

State Plans, Policies, Regulations, and Laws

California Environmental Quality Act

Appendix F of the State CEQA Guidelines sets forth goals for energy conservation, including decreasing per capita energy consumption and reliance on fossil fuels and increasing reliance on renewable energy sources. CEQA requires EIRs to describe potential energy impacts of projects, with an emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (Public Resources Code [PRC] Section 21100[b][3]).

The California Energy Commission (CEC) prepares an integrated policy report every two years that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (CEC 2017a). Energy efficiency is one of the key components of the state's strategy to reduce greenhouse gas emissions (GHGs) and to achieve reduction targets set forth by Assembly Bill (AB) 32, Senate Bill (SB) 32, and Governor Brown's Executive Order B-30-15 (see Section 4.7, "Greenhouse Gas Emissions and Climate Change" for further information on these laws and the Executive Order). Efficiency achieved through building codes, appliance standards, and ratepayer-funded programs has had a positive impact on GHG emissions in recent years (CEC 2017a:10a). The policy report discusses efforts to decarbonize California's energy system and recognizes transitioning to zero- and near-zero emission vehicles will be a fundamental part of meeting the state's climate goals.

The California Public Utilities Commission (CPUC) 2008 Energy Efficiency Strategic Plan established goals of having all new residential construction in California be zero net energy (ZNE) by 2020 and all new commercial construction ZNE by 2030 (CPUC 2017).

Clean Energy and Pollution Reduction Act

On October 7, 2015, the Clean Energy and Pollution Reduction Act (SB 350) was signed into law, establishing new clean energy, clean air and GHG reduction goals for 2030 and beyond. SB 350 codifies Governor Brown's clean energy goals to increase California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030, and is part of California's overall strategy to address climate change (CEC 2017b). SB 350 enhances the state's ability to meet its long-term climate goal of reducing GHG emissions to 40 percent of 1990 levels by 2030 and 80 percent below 1990 levels by 2050 (CEC 2017b).

California Code of Regulations, Energy Efficiency Standards

Energy consumption in new buildings in California is regulated by State Building Energy Efficiency Standards (CALGreen) contained in the California Code of Regulations, Title 24, Part 2, Chapter 2-53. Title 24 applies to all new construction of both residential and nonresidential buildings, and regulates energy consumed for heating, cooling, ventilation, water heating, and lighting. The 2016 Building Energy Efficiency Standards have

improved efficiency requirements from previous codes and the updated standards are expected to result in a statewide consumption reduction (CEC 2015).

Green Building Initiative

In 2012, Governor Brown's Executive Order B-18-12 (State of California Governor Office 2012) and its related Green Building Action Plan state the following energy and water efficiency improvement goals for facilities owned, funded, and leased by the State:

- All new state buildings beginning design after 2025 shall be constructed as ZNE facilities with an interim target for 50 percent of new facilities beginning design after 2020 to be ZNE. State agencies shall also take measures toward achieving ZNE for 50 percent of the square footage of existing state-owned building area by 2025.
- The state shall identify at least three buildings by January 1, 2013, to pursue ZNE as pilot projects.
- New and major renovated state buildings shall be designed and constructed to exceed the applicable version of CCR Title 24, Part 6, by 15 percent or more, and include building commissioning, for buildings authorized to begin design after July 1, 2012.
- Any proposed new or major renovation of state buildings larger than 10,000 square feet shall use clean, onsite power generation such as solar photovoltaic, solar thermal, and wind power generation, and clean backup power supplies, if economically feasible.
- New and major renovated state buildings larger than 10,000 square feet shall obtain Leadership in Energy and Environmental Design (LEED) "Silver" certification or higher.
- State agencies shall reduce water use at the facilities they operate by 10 percent by 2015 and by 20 percent by 2020, as measured against a 2010 baseline.
- All new and renovated state buildings and landscapes shall utilize alternative sources of water wherever cost-effective. Sources may include, but are not limited to: recycled water, graywater, rainwater capture, stormwater retention, and other water conservation measures.
- Landscape plants shall be selected based on their suitability to local climate and site conditions, and reduced water needs and maintenance requirements.
- State agencies shall identify and pursue opportunities to provide electric vehicle charging stations, and accommodate future charging infrastructure demand, at employee parking facilities in new and existing buildings.

Local Plans, Policies, Regulations, and Laws

City of Sacramento 2035 General Plan

The energy policies of the 2035 General Plan are intended to support an increasing reliance on renewable energy to reduce Sacramento's dependence on nonrenewable energy sources and the city's carbon footprint. The following goals and policies are most relevant to the project.

Goal U 1.1 High-Quality Infrastructure and Services. Provide and maintain efficient, high-quality public infrastructure facilities and services throughout the city.

- **Policy 1.1.11 Underground Utilities.** The City shall require undergrounding of all new publicly-owned utility lines, encourage undergrounding of all privately-owned utility lines in new developments, and work with electricity and telecommunications providers to underground existing overhead lines.

Goal U 6.1 Adequate Level of Service. Provide for the energy needs of the city and decrease dependence on nonrenewable energy sources through energy conservation, efficiency, and renewable resource strategies.

- **Policy U 6.1.1 Electricity and Natural Gas Services.** The City shall continue to work closely with local utility providers to ensure that adequate electricity and natural gas services are available for existing and newly developing areas.
- **Policy U6.1.5 Energy Consumption per Capita**. The City shall encourage residents and businesses to consume 25 percent less energy by 2030 compared to the baseline year of 2005.
- **Policy U6.1.6 Renewable Energy.** The City shall encourage the installation and construction of renewable energy systems and facilities such as wind, solar, hydropower, geothermal, and biomass facilities.
- **Policy U6.1.7 Solar Access.** The City shall ensure, to the extent feasible, that sites, subdivisions, landscaping, and buildings are configured and designed to maximize passive solar access.
- **Policy U6.1.8 Other Energy Generation Systems**. The City shall promote the use of locally shared solar, wind, and other energy generation systems as part of new planned developments.
- **Policy U6.1.15 Energy Efficiency Appliances**. The City shall encourage builders to supply Energy STAR appliances and HVAC systems in all new residential developments, and shall encourage builders to install high-efficiency boilers where applicable, in all new non-residential developments.

4.5.2 Existing Conditions

Public utilities in the project area are provided by various entities, as identified in Table 4.5-1 and discussed in detail below.

Table 4.5-1 Utilities Providers for the Project Area

Utility	Agency/Provider
Water Supply	City of Sacramento
Wastewater Collection and Conveyance	City of Sacramento
Wastewater Treatment	Sacramento Regional County Sanitation District
Stormwater Conveyance	City of Sacramento
Solid Waste Collection[1]	City of Sacramento (residential); Various private franchised haulers (commercial)
Electrical Service	Sacramento Municipal Utility District
Natural Gas	Pacific Gas & Electric Company

[1] Discussed in Section 4.14, "Public Services."

Source: Ascent Environmental, Inc. compiled in 2017

WATER SUPPLY

The City of Sacramento Department of Utilities is responsible for water services within the city limits, including the project site, with the exception of some city residents who receive their water from Sacramento Suburban Water District. The City provides drinking water from groundwater and surface water resources. Surface water is diverted at two locations: from the American River downstream of the Howe Avenue Bridge, and from the Sacramento River downstream of the confluence of the American and Sacramento Rivers. The City draws groundwater from two subbasins of the Sacramento Valley Groundwater Basin, the North

American Subbasin, located north of the American River, and South American Subbasin, located south of the American River. Surface water and groundwater resources are described further in Section 4.10, "Hydrology and Water Quality."

The City's retail service area covers approximately 99 square miles (63,182 acres) with 135,830 connections and a population of 480,105 as of 2015 (City of Sacramento 2016:3-1 through 3-2). The City also provides wholesale water supplies to the Sacramento County Water Agency, Sacramento Suburban Water District, California American Water, and Fruitridge Vista Water Company.

Surface Water Supply

The City of Sacramento has relied on river water for its primary source of supply since 1854 and claims pre-1914 rights to divert approximately 75 cubic feet per second (cfs) from the Sacramento River (City of Sacramento 2016:6-6). In addition, the City holds five water rights permits to serve the city: one for diversion of Sacramento River water and four for diversion of American River water. Table 4.5-2 indicates the application number and permit number and date of issue, the rate of diversion in cubic feet per second, annual limit in acre feet, purpose of use, and period of use for each permit.

The Sacramento River permit and two of the American River permits authorize direct diversion of water from its respective source (City of Sacramento 2016:6-6 through 6-7). The other two permits authorize rediversion for use of American River tributary water diverted by SMUD's Upper American River Project. Water diverted under these two permits may be rediverted for use at several locations, including the Fairbairn Water Treatment Plant (FWTP) and the SRWTP.

Table 4.5-2 Summary of Surface Water Rights Permits for the City of Sacramento

Application Permit and License No.	Priority Date	River Source	Maximum Amount Specified		Purpose of Use	Period of Use
			cfs	afy		
A: 1743 P: 992	3/30/1920	Sacramento	225[1]	81,800[1]	Municipal	Jan 1 to Dec 31
A: 12140 P: 11358	10/29/1947	American	675[2]	245,000[3]	Municipal	Nov 1 to Aug 1
A: 12321 P: 11359	2/13/1948	Tributaries of American			Municipal	Nov 1 to Aug 1[4]
A: 12622 P: 11360	7/28/1948	Tributaries of American			Municipal	Nov 1 to Aug 1[4]
A: 16060 P: 11361	9/22/1954	Tributaries of American			Municipal	Nov 1 to Aug 1[5]

Note: afy = acre-feet per year; cfs = cubic feet per second

[1] See Articles 9 and 10 of Contract No. 14-06-200-6497 dated 6-28-57 between the City and the U.S. Bureau of Reclamation.

[2] Combined total 675 cfs diversion. See Articles 9 and 10 of Contract No. 14-06-200-6497 dated 6-28-57 between the City and the U.S. Bureau of Reclamation.

[3] Combined total 245,000 afy diversion. See above contract articles listed in footnote 2.

[4] Year-round period for rediversion of water previously diverted by SMUD Upper American River Reservoirs.

[5] January 1 to December 31 (Municipal and Recreational); November 1 to August 1 (Industrial).

Source: City of Sacramento 2016:6-6

In 1957, the U.S. Bureau of Reclamation (Reclamation) and the City entered into a permanent water rights settlement agreement pertaining to the use of water from the American and Sacramento Rivers. This agreement settled the parties' competing claims to American River water and backed up the City's water rights permits by requiring Reclamation to operate its facilities so that the City would always have sufficient water available to meet its needs. Table 4.5-3 shows the City's schedule of authorized surface water supply over the next approximately 20 years.

Table 4.5-3 Maximum Contracted Annual Surface Water Diversion (afy) for the City of Sacramento[1]

Water Source	2020	2025	2030	2035	2040
Maximum Diversion from the Sacramento River[2]	81,800	81,800	81,800	81,800	81,800
Maximum Diversion from the American River[3]	208,500	228,000	245,000	245,000	245,000
Total	**278,000**	**304,000**	**326,800**	**326,800**	**326,800**

Note: afy = acre-feet per year

[1] Data obtained from Schedule A of the 1957 Water Rights Settlement Contract between USBR and the City.

[2] The City may divert up to 81,800 afy from the Sacramento River as long as the total combined diversion from both the Sacramento and American Rivers does not exceed the Maximum Combined Diversion.

[3] The City may divert up to the Maximum Diversion from the American River as long as the total combined diversion from both the Sacramento and American Rivers does not exceed the Maximum Combined Diversion.

Source: City of Sacramento 2016:6-8

Minimum-Flow Requirements

Current usage and future development must be sensitive to American River stream flows, especially during dry periods. There are two major institutional constraints that limit the FWTP diversion capacity: Hodge Flow conditions and Extremely Dry Year conditions, described below.

Extremely Dry Years (Conference Years)

Extremely dry years (i.e., Conference Years) are defined as years in which Department of Water Resources projects an annual unimpaired flow into Folsom Reservoir of 550,000 afy or less, or the projected March through November unimpaired flow is less than 400,000 afy (City of Sacramento 2016:6-9). During extremely dry years, the City limits its diversions for water treated at the FWTP to 155 cfs (100 mgd) and 50,000 afy (16,300 million gallons per year [mgy]). Conference Years have occurred on the American River only three times over the recorded hydrologic history: in 1924, 1977, and 2015.

Hodge Flow Conditions

The Water Forum Agreement (WFA) restricts diversions from the American River when flows are below the "Hodge Flow" criteria, as defined in *Environmental Defense Fund et al. v. East Bay Municipal Utility District* (City of Sacramento 2016:6-8). The purveyor specific agreement (PSA) established with the City under the WFA, allows the diversion of American River water to the FWTP of up to 310 cfs (200 mgd) when the flow passing the FWTP is greater than the Hodge Flow Criteria and extremely dry year conditions do not exist. Under Hodge Flow Criteria, diversions to the FWTP are limited, as shown in Table 4.5-4. Although Hodge Flow Conditions and Conference Years may reduce the amount of water that can be diverted from the FWTP on the American River, the City can instead divert their remaining American River entitlements downstream at the SRWTP (City of Sacramento 2016:7-10 through 7-12).

Table 4.5-4 Maximum Rate of Diversion to the FWTP during Hodge Flow Years

Period	Maximum Diversion	
	Cubic Feet per Second (cfs)	Million Gallons per Day (mgd)
January through May	120	77.6
June through August	155	100.2
September	120	77.6
October through December	100	64.6

Source: City of Sacramento 2016:6-9

Groundwater Supply

The City currently operates 22 groundwater supply wells, with the majority of these wells located within the City's service area north of the American River (City of Sacramento 2016:3-4). The current total pumping capacity of the City's municipal supply wells is approximately 20.6 mgd (23,077 afy). The City is conducting a well rehabilitation program that includes projects for improving capacity at several existing wells. Additionally, two new wells are anticipated to supply potable water in 2017-2018. The groundwater pumping capacity is anticipated to increase to approximately 25 mgd (28,006 afy) after the rehabilitation project and new wells are completed.

Water Treatment Plants

The SRWTP, located just east of Interstate 5 and south of Richards Boulevard, treats water pumped from the Sacramento River about one-half mile downstream from the American River confluence (City of Sacramento 2016:3-4). The SRWTP permitted capacity is 160 mgd. The City is currently finishing a project to upgrade some of the SRWTP components, including related to filters, the pump system, and solids handling. These upgrades do not expand the treatment plant's treatment capacity (Ewart, pers. comm., 2017b). The City's distribution system does not have physical constraints in conveying up to 160 mgd water from the SRWTP. In the 2015-2016 fiscal year, the SRWTP treated a total of 14,502 million gallons for an average of approximately 40 mgd.

The FWTP is located on the south bank of the lower American River, approximately 7 miles upstream from its confluence with the Sacramento River. The City's FWTP reliable treatment and permitted capacity are both 160 mgd (City of Sacramento 2016:7-1 through 7-2). However, the pipelines conveying water from the FWTP to the rest of the system are not able to convey the full 160 mgd, and the conveyance of treated water from FWTP is limited to approximately 110 mgd. This physical constraint does not impact existing customers. The City is completing a rehabilitation at the FWTP to increase the reliable treatment capacity to match the permitted capacity of 160 mgd. During extremely dry years, the City agrees to limit diversions for water treated at FWTP to approximately 100 mgd (City of Sacramento 2016:6-9). During periods when the flow passing the FWTP is less than Hodge Flow Criteria, diversions to the FWTP are limited to between about 64 mgd and 100 mgd depending on the time of year. In the 2015-2016 fiscal year, an average of 25 mgd of water was treated at FWTP (Ewart, pers. comm., 2017b).

Currently, average treatment volumes at each of these treatment plants are below capacity. As of 2015-2016, using a conservative assumption for low flows during Hodge Flows or extremely dry years for treatment at the FWTP during which treatment capacity is limited to between 64 mgd and 100 mgd, FWTP had 39 mgd to 75 mgd of capacity available to treat additional water demand. As of 2015-2016, the SRWTP had 120 mgd of capacity available to treat additional water demand.

Current and Planned City Water Supply Sources

In 2015, as reported in the 2015 UWMP, water supply and demand was 84,832 af (27,643 mgd) (see Table 4.5-5). Projections of future population within the City's service area and sphere of influence are based on the 2035 General Plan.

Planned water supplies shown in Table 4.5-5 are based on reasonably available volume, which in some cases is less than the total right or safe yields, which are discussed above. The total right (or safe yield) for the Sacramento River is equal to the reasonably available volume (81,800 afy); for the American River it is 208,500 af in 2020 and increases to 245,000 af in 2030 through 2040; and for groundwater it is 25,205 af.

The planned supplies and demand shown in Table 4.5-5 are representative of anticipated supplies and demand in a normal year, single dry year, and multiple dry years. The supplies also reflect limitations that may occur under Hodge Flow Conditions and Conference Years (City of Sacramento 2016:7-9 through 7-11). Maintaining the same amount of supply during a normal year, single dry year, and multiple dry years is possible because groundwater levels are not reduced during a drought such that the well capacity is affected and because Hodge Flow Conditions and Conference Years may reduce the amount of water that can be diverted from the FWTP on the American River, but the City can instead divert their remaining American River entitlements downstream at the SRWTP (City of Sacramento 2016:7-9 through 7-11).

As shown in Table 4.5-5, the City has ample water supplies to meet demand from 2020 through 2040. The surplus water supply, after meeting anticipated demands, represents between 55 percent of the total supply in 2020 and decreases to 45 percent of total supply in 2040.

Table 4.5-5 City of Sacramento Current and Planned Annual Water Demand and Sources of Supply[1]

	2015 (af [mg])	2020 (af [mg])	2025 (af [mg])	2030 (af [mg])	2035 (af [mg])	2040 (af [mg])
Surface Water Supply	70,467 (22,962)	253,168 (82,495)	267,119 (87,041)	273,507 (89,123)	273,507 (89,123)	273,507 (89,123)
Groundwater Supply[2]	13,706 (4,466)	21,749 (7,087)	20,169 (6,572)	19,912 (6,488)	19,912 (6,488)	19,912 (6,488)
Recycled Water Supply[3]	0	1,000 (326)	1,000 (326)	1,000 (326)	1,000 (326)	1,000 (326)
Mutual Aid	659 (215)	0	0	0	0	0
Total Water Supply	**84,832 (27,643)**	**275,917 (89,908)**	**288,288 (93,939)**	**294,419 (95,937)**	**294,419 (95,937)**	**294,419 (95,937)**
Water Demand[4]	**84,832 (27,643)**	**123,229 (40,154)**	**130,548 (42,539)**	**139,882 (45,581)**	**149,213 (48,621)**	**162,029 (52,797)**
Surplus (+)/Deficit (-)	0	152,688 (49,754)	157,740 (51,400)	154,537 (50,356)	145,206 (47,316)	132,390 (43,139)

Note: af = acre-feet; mg = million gallons; 1 acre-foot = 325,851 gallons

[1] Supplies and demand remain the same during normal, single dry, and multiple dry years because the City of Sacramento has sufficient water supply entitlements.

[2] Groundwater supplies are based on the City's firm capacity, which is 90 percent of the total well capacities.

[3] Recycled water is defined in the 2015 UWMP as municipal wastewater that has been treated and discharged from a wastewater facility for beneficial reuse. Recycled water supplies shown here represent projected supplies, but the City does not currently use recycled water.

[4] Includes residential, commercial and industrial, institutional/governmental, landscaping, and system losses.

Source: City of Sacramento 2016:4-3, 6-5, 6-10, 6-18, 7-10 through 7-12

WASTEWATER

Wastewater and stormwater runoff from most of the central area of the city is collected by the City's CSS. The CSS has a total service area of 7,545 acres. The City of Sacramento Department of Utilities operates and maintains the CSS. The CSS consists of the CWTP, pumping stations (Sumps 1/1A and 2/2A), Pioneer Reservoir, and in-line and off-line storage facilities. The collection system consists of trunks, interceptors, reliefs, force mains, laterals, and other pipelines, and has a total storage capacity of about 115 af (37 mg; City of Sacramento 2013). Stormwater conveyance infrastructure in the vicinity of the project site is further discussed below.

The flows in the CSS are conveyed to two pumping stations (Sumps 1/1A and 2/2A) located near the Sacramento River (Central Valley RWQCB 2015:F-4). Up to 60 mgd of wastewater flows in the CSS are conveyed to the Regional San Force Main, which carries flows to the SRWTP. When flows are greater than 60 mgd, the additional flows are conveyed to the CWTP via the CWTP Force Main and/or to Pioneer Reservoir via the Pioneer Interceptor.

In the vicinity of the project site, components of the CSS include a 30-inch main that connects to a 33-inch main under 7th Street. A 12-inch main under O Street flows to the 30-inch main under 7th Street. There are 8-inch mains under 8th Street and P Street that flow to the 33-inch main in 7th Street. The 7th Street main flows south to S Street and then west towards Sump 1/1a (Dalrymple, pers. comm., 2017b). At 5th and U Streets,

the CSS flows are diverted south at 5th Street to Sump 2. Larger flows that occur during storms will result in some flows also going to Sump 1/1a. An existing 8-inch main, flowing east to west, is located at the Opera Alleyway on the P Street Block. The Heilbron House has an existing service connection to the CSS line under 7th Street.

According to the City of Sacramento Department of Utilities, the CSS mains in the vicinity of the project site have existing available capacity for wastewater during dry weather (Dalrymple, pers. comm., 2017a). The City of Sacramento Department of Utilities criteria is to allow half of a pipe's capacity to be used for sewer and the other half for stormwater (Dalrymple, pers. comm., 2017b).

Implementation of the Sacramento 2035 General Plan would not result in a substantial increase in sewage flows to the CSS because the City requires that new project flows be mitigated in accordance with the Combined System Development Fee (City of Sacramento 2014a:4.11-15).

Wastewater Treatment and Disposal

Wastewater treatment within the city is provided by Regional San and the City of Sacramento. Regional San operates all regional interceptors and wastewater treatment plants serving the city except for the combined sewer and storm drain treatment facilities, which are operated by the City of Sacramento.

Sacramento Regional Wastewater Treatment Plant

Regional San was formed in the mid-1970s as a result of the Sacramento Regional Wastewater Management Program. The program consolidated more than a dozen treatment facilities and virtually eliminated effluent discharge into local waterways, instead treating all wastewater to a high level and discharging it at one point in the Sacramento River. About 1.4 million people are provided sewer service by the Regional San (Regional San n.d.). Regional San has begun construction on mandated treatment plant upgrades, known as the EchoWater Project, which will improve effluent water quality. Upgrades will be complete by 2023.

The Regional San wastewater conveyance system is comprised of 169 miles of interceptor pipelines, 46 miles of force mains, and 11 pump stations before it reaches the Regional San WWTP near Elk Grove (Regional San n.d.). The Regional San WWTP currently provides secondary treatment of wastewater, has a permitted treatment capacity of 181 mgd of average dry-weather flow, and currently treats approximately 150 million gallons (mg) of wastewater each day. A Wastewater Operating Agreement between Regional San and the City, limits wastewater flows from the city to 60 mgd (City of Sacramento 2014b:4-2). In 2014, dry weather flows to the SRWTP were 18 mgd. The remaining capacity is reserved for stormwater. In 2015, most (94.2 percent) of the combined wastewater and stormwater flows in the CSS, in addition to flows in the City's separated sewer system, were delivered to the SRWTP (City of Sacramento 2016:6-10).

During heavy storms where the flows exceed 60 mgd, the CWTP is used to provide primary treatment of an additional 130 mgd. Excess flows beyond 190 mgd are diverted to the Pioneer Reservoir storage and treatment facility that has a capacity of 250 mgd. When all three treatment facilities (SRWTP, CWTP, and Pioneer Reservoir) have reached capacity, excess flows (combined sewer overflows, or CSOs) are directly discharged into the Sacramento River from Sump 2 without treatment. In the central city, when the CSS pipeline system capacities are surpassed, which may occur during severe storm events, the excess flows flood local streets through maintenance holes and catch basins.

Combined Wastewater Treatment Plant and Pioneer Reservoir

During extreme high flow conditions after treatment has been maximized at the Pioneer Reservoir and the CWTP, discharges of untreated combined wastewater may occur at Sump 2/2A through Discharge Points 004 and 005 and at the Sump 1/1A Pioneer Bypass at Discharge Point 007 (Central Valley RWQCB 2015:F-5).

During moderate to large storms when the CSS flows are greater than 60 mgd, the flows greater than 60 mgd are routed to the CWTP and/or Pioneer Reservoir for temporary storage (City of Sacramento 2016:6-12). When flows exceed storage capacity, the excess flows are released to the Sacramento River after

receiving primary treatment, including chlorination and de-chlorination. When the storage and treatment capacities are reached, additional CSS flows are discharged directly to the Sacramento River from Sump 1 and/or Sump 2. In 2015, Pioneer Reservoir treated 278 af (91 mg) of wastewater that was discharged. The CWTP had no discharges in 2015.

Combined Sewer Overflows and CSS Improvements

The majority of the time the CSS treatment facilities, CWTP and Pioneer Reservoir, capture and provide treatment for up to 100 percent of the combined sewer flows (Central Valley RWQCB 2015:F-36). The CSS uses a combination of storage, such as in-line storage, and treatment facilities to manage flows in the CSS and minimize CSOs (Central Valley RWQCB 2015:F-48). There have been infrequent instances where small volumes of untreated overflows have occurred from some of the discharge points into the Sacramento River. The City's efforts to comply with the CSO Control Policy have resulted in consistent and significant reductions in dry weather and dry season flows over the last 20 years. The overall annual average CSO discharge volume decreased by over 60 percent over the past 24 years. Water conservation, new plumbing codes for redevelopment, and ongoing collection system improvements are all factors in the gradual decrease in dry and wet weather flows over time.

The average number of days that untreated CSOs were discharged per year has also decreased from seven per year in the early 1990s, prior to implementation of the CSSIP, to less than once per year in the past 10 years. The treated CSO discharges have also decreased from 15 times per year on average to an average of four times per year during the same time period. As of June 2015, the last untreated release of CSO occurred in the 2012-2013 storm year (Central Valley RWQCB 2015:F-21).

The CSSIP developed by the City is designed to make progress towards the final goal of minimizing street flooding during a 10-year storm event and to prevent structure flooding during the 100-year storm event (Central Valley RWQCB 2015:F-52). Several capital improvement projects included in the CSSIP that were designed to reduce discharges from the CSS and maximize CSS storage capacity have been completed (Central Valley RWQCB 2015:F-48). For example, in 2014, the City completed construction of the Oak Park Regional Storage Facility that provides an additional 4 mg of regional storage in the CSS. In addition, part of this CSSIP project involves use of a new hydraulic model to optimize system performance and ensure all storage fills completely during major storm events. Many other CSSIP projects have been completed and other projects are underway or planned as part of the City's Downtown Combined Sewers Upsizing Project in order to improve system operations and capacity (City of Sacramento 2017).

STORMWATER

Although much of the stormwater flows in the central city area are conveyed by the CSS, which is described above, a separate stormwater system is located in the vicinity of the project. An existing 18-inch storm drain is located in 7th Street that flows north to N Street. Stormwater in this storm drain is pumped to the Sacramento River at O Street (Dalrymple, pers. comm., 2017d).

ENERGY

Electricity

SMUD generates, transmits, and distributes electrical power to a 900-square-mile service area that includes Sacramento County and a small portion of Placer County. SMUD's electricity sources include hydropower generation; cogeneration; advanced and renewable technologies such as wind, solar, and biomass/landfill gas power; and power purchased on the wholesale market.

SMUD transmits power to the downtown Sacramento area by a series of overhead and underground 115-kilovolt (kV) transmission lines that feed 12-kV and 21-kV distribution systems (SMUD 2017). Transmission lines run parallel to R Street east of 19th Street and along 19th and 20th Streets south of R Street. These lines connect to SMUD Station B at 19th and P Streets. An underground 115-kV loop connects SMUD Station A at

Seventh and H Streets, Station B at 19th and O Streets, and Station D at Eighth and R Streets. Station D drops the 115 kV down to 21 kV and 12 kV to serve the overall downtown area. The 12-kV system is a high-reliability network with redundant feeds, intended to serve the high-rise core area where it is important to keep critical government and business facilities operating. This 12-kV network has limited capacity for expansion and is not intended to serve the project area. The 21-kV system serves the balance of the downtown area.

An existing network vault (8050V) located on 8th Street serves the project site and is at full capacity (ARUP 2017b). A secondary service run to the P Street Block is located along Opera Alley that connects to the Heilbron House. The P Street Block is served by distribution lines located in P Street and in 8th Street.

Natural Gas

PG&E supplies natural gas to the Sacramento area, and to a larger 70,000 square mile service territory. In downtown Sacramento, PG&E has both high-pressure and low-pressure distribution systems. High-pressure system pipelines carry gas at approximately 40 pounds per square inch (psi). Low-pressure system pipelines, carry gas at about 0.25 psi. Service is generally provided from the low-pressure system unless usage exceeds about 3,000 cubic feet per hour. Regulator stations at various locations are used to reduce high pressure to low pressure.

The P Street Block is served by an existing 8-inch low pressure natural gas service line along O Street and an existing 4-inch low pressure line along 7th Street (Hendricks, pers. comm., 2017). The nearest high pressure gas lines to the project site are at 7th and N Streets and 6th and P Streets.

4.5.3 Environmental Impacts and Mitigation Measures

ANALYSIS METHODOLOGY

The analysis below does not identify utility demand from the proposed child care center on the roof of the Subterranean Building (see Chapter 3, "Project Description") as independent from the demand from P Street Block facilities. Utility demand from the child care center is included in the overall demand calculations for the project. The impact discussions below encompass the effects of the child care center within the overall total project effects.

Water Demand

CEQA Guidelines Section 15155 requires preparation of a water supply assessment (WSA) when a project is of sufficient size to be defined as a "water-demand project." Because the project proposes to construct an office building with more than 250,000 square feet of office space and would employ more than 1,000 people, it is a water demand project and a WSA was prepared to meet the requirements of Section 15155. The WSA is included in this EIR in Appendix D. A WSA is required to be prepared by the public water system that will serve the project, unless there is no public water system, in which case the WSA is prepared by the CEQA lead agency. A "public water system" is defined in Section 15155 as a system that provides piped water for human consumption and has at least 3,000 connections.

A City of Sacramento SB 610/SB 221 Water Supply Assessment and Certification Form was completed for the proposed project (Appendix D). This form may be used to complete WSAs for projects located in an area covered by the City's 2015 UWMP. For the type of project proposed, in the Central Business District, the City uses a water demand factor of 0.02 acre-feet per year per employee. Based on the WSA, the City verified that sufficient water supplies are available for the project during normal, single dry, and multiple dry years over a 20-year period.

Wastewater Treatment and Disposal

Impacts related to wastewater conveyance and treatment capacity were evaluated by estimating the increase in wastewater resulting from the project, and determining whether the existing wastewater

treatment and conveyance infrastructure has adequate capacity to accommodate the increase. Wastewater flows for the project are based on the following generation rates for wastewater provided by the Department of Utilities Design and Procedure Manual (Dalrymple, pers. comm., 2017a):

- Restaurants = 2 ESDs/1,000 sq. ft.
- Office Space/Retail = 0.2 ESD/1,000 sq. ft.
- 1 ESD = 400 gallons per day (gpd) of wastewater flow

Energy

Electricity

Impacts related to electricity were evaluated by determining whether any new facilities would need to be constructed to serve the project, whether SMUD would be able to serve the project, and whether the construction of necessary electrical improvements would adversely affect SMUD electrical capacity or infrastructure or interrupt utility service during construction.

Natural Gas

Similar to electricity, impacts related to natural gas were evaluated by determining whether any new facilities would need to be constructed to serve the project, and whether any utility services would be interrupted during construction.

THRESHOLDS OF SIGNIFICANCE

A utilities-and-infrastructure impact is considered significant if implementation of the project would do any of the following:

- not comply with wastewater treatment requirements of the applicable RWQCB;
- require or result in the construction of new water- or wastewater-treatment or conveyance facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- require new or expanded water-supply entitlements because sufficient water supplies are not available to serve the project from existing entitlements and resources; or
- require or result in the construction of electricity or natural-gas facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

ENVIRONMENTAL IMPACTS

Impact 4.5-1: Increased demand for water supply

The total new water demand for the project would be approximately 70 afy (62,492 gpd), an increase of 0.08 percent over the existing demand on the City's water supply. When the new office building is ready for occupancy in 2021, the estimated water demand would represent approximately 0.05 percent of the City's surplus water supply (152,688 afy). The City would have adequate water supply to serve the project. The proposed project would also reduce its water demand through project design and implementation of water conservation measures that would exceed Title 24 requirements and meet or exceed LEED v4 Silver standards. This impact would be **less than significant**.

The project site is occupied by the Heilbron House, a surface parking lot, and the existing Subterranean Building. The proposed project would not result in changes to existing water demand at the Heilbron House. Water demand from the child care facility proposed as modular buildings on the roof plaza on the Subterranean Building is included in the overall project water demand. Using the water demand factor of 0.02 acre-feet per year per employee provided in the City's SB 610/SB 221 Water Supply Assessment and Certification Form (see Appendix D), the estimated project demand after buildout is approximately 70 afy (62,492 gpd).

The 70-afy estimated increase in demand would represent an increase of approximately 0.08 percent in the City's overall system demand of 84,832 afy in 2015. As shown in Table 4.5-5, the City provided water supply equal to the demand in 2015. However, as of 2015, the City's groundwater pumping capacity was 23,077 afy and the City has rights to 326,800 afy of surface water, for an available supply of over 349,000 afy (see Table 4.5-2). The city currently has sufficient supply to meet the project's water demands.

The City is projected to have a surplus water supply of between 152,688 afy in 2020 and 132,390 afy in 2040 during normal, single dry, and multiple dry years (see Table 4.5-5). When the project is completed and occupied in 2021, the estimated project water demand increase over existing conditions would represent approximately 0.05 percent of the City's surplus water supply from 2020 through 2040. The WSA confirms that the City's planned water supplies would be adequate to serve the proposed project during normal, single dry, and multiple dry years over a 20-year period (see Appendix D).

The project would also generate water demand associated with heating and cooling, which would be provided to the building by the State's Central Plant, which provides heating and cooling to a number of State buildings near the project site, including the State Capitol and the Subterranean Building. Heating is provided through the delivery of pressurized steam generated at the Central Plant from natural gas fired boilers and cooling is provided through the delivery of chilled water generated by a system of chillers and cooling towers. Both the pressurized steam and chilled water are conveyed to State buildings in the Capitol Area through a system of underground pipes. Water demand for heating and cooling the proposed project would be approximately 6.7 mgy (20.7 afy) (Shields, pers. comm., 2017). The Central Plant is permitted for its full capacity water demand (DGS 2015:6). The full capacity of the Central Plant includes all of the existing buildings it serves, and new State buildings, including the proposed project. Therefore, the water demand associated with the proposed project's heating and cooling needs would not be considered an increase in water demand at the Central Plant that has not been previously assessed.

The new building at P Street Block would include water conservation and reuse measures that exceed 2016 Title 24 water efficiency requirements and meet or exceed LEED v4 Silver standards. All plumbing fixtures in the building would be low-flow/high-efficiency fixtures. Landscaping on the P Street Block would use drought tolerant native plants as another water-saving design measure. Because the proposed project would implement water efficiency measures beyond those required by Title 24, the estimated increase in water demand of 70 afy for the project is considered to be a conservative estimate (i.e., is higher than would actually occur). With implementation of the water-saving measures, the proposed project would be consistent with City policies related to reducing water demand through implementation of water conservation measures (Policies U 2.1.10 and U 2.1.12), and use of native and climate appropriate plants (Policy U 2.1.15).

The City would have adequate water supply to serve the project. Additionally, the project would reduce its water demand through project design and implementation of water conservation measures that would exceed 2016 Title 24 requirements and meet or exceed LEED v4 Silver standards. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 4.5-2: Effects on water conveyance and treatment infrastructure

The project would include a new water service connection to the 8-inch water main in 7th Street, and fire water service would connect to the 10-inch main in 8th Street. The existing water delivery infrastructure at P Street Block includes two water mains that could be insufficient to supply water to the proposed building. The City's water treatment plants have sufficient capacity to serve the water treatment demand for the project. Because one of the potential water mains would be insufficient to serve the project, this impact is **potentially significant**.

The City's policy is to require developers to construct all infrastructure necessary to support their projects. To determine whether existing water infrastructure is sufficient to deliver a project's water needs, a water supply or hydrant flow test is performed on the existing system. If the existing water distribution system is sufficient to meet the needs, no infrastructure upgrades are necessary. If the facilities are found to be insufficient, the developer is required to work with the City to develop an acceptable solution, such as upgrading pipes or paying mitigation fees.

The water supply infrastructure for the office building would need to meet the project's demand for an estimated 70 afy (approximately 62,500 gpd) of water, and meet fire flow pressure requirements of 6,000 gpm (with up to a 75 percent reduction in this standard if sprinklers are installed). Infrastructure to be constructed as part of the project would include a new 6-inch domestic service line from the existing 8-inch water main in 7th Street to the new building. Additionally, two new fire water connections, 6-inch or 8-inch, and a new fire hydrant would be constructed, connecting to the existing 10-inch water main in 8th Street. The existing 8-inch line that runs east-west through the middle of the P Street Block would be abandoned as part of the project.

The City's existing water supply infrastructure around the P Street Block is old and of undetermined quality and likely has limited capacity (Ewart, pers. comm., 2017a). For example, the 10-inch main in 8th Street potentially has a total capacity closer to that of an 8-inch main due to tuberculation. (Tuberculation is the development of small mounds of corrosion products on the inside of iron pipes.) A hydrant-flow test would need to be performed before any final design of the water system would be approved.

As described above under "Water Treatment Plants," the FWTP has, based on data from 2015-2016, 39 mgd to 75 mgd of available treatment capacity and the SRWTP has 120 mgd of available treatment capacity. Without taking into consideration the project's proposed water conservation measures, the average daily water treatment demand would be approximately 62,500 gpd, which would be 0.08 to 0.2 percent of the remaining available water treatment capacity at the FWTP during Hodge Flows or extremely dry years. The project's water treatment demand would be an estimated 0.05 percent of the remaining available water treatment capacity at SRWTP. For these reasons, even in years when treatment capacity is reduced, there would be sufficient water treatment capacity to meet the project need.

Without more information regarding the functional status of the 8-inch main under 7th Street and the 10-inch main under 8th Street, it is unclear whether or not these mains could adequately meet the project's water conveyance need, including fire flow requirements (Ewart, pers. comm., 2017a). Because the water supply infrastructure that could serve the project may not be adequate to serve the water demand and fire flow needs, this impact is **potentially significant**.

Mitigation Measure 4.5-2: Improve water supply infrastructure capacity

DGS shall complete a water study to determine the quality and ability of the City's water supply infrastructure to serve the project. The water supply infrastructure must meet the project's estimated demand for 70 afy of water (with options for a reduction with verification of water conservation measures), and meet fire flow pressure requirements of 6,000 gpm (with up to a 75 percent reduction in this standard if sprinklers are installed). If water infrastructure is determined to be insufficient, the water study shall identify, and DGS shall implement, the improvements necessary to meet the project's demands and fire flow requirements. Improvements could include replacing the 8-inch water main in 7th Street with a 10-inch or 12-inch main

and/or replacing the 10-inch water main in 8th Street with a 12-inch main. The water study shall be submitted to the City of Sacramento Department of Utilities prior to approval for connection to the City's water supply infrastructure. Additionally, the Sacramento Fire Department shall conduct a fire flow test prior to issuance of an occupancy permit for the building to ensure the water supply infrastructure for the building meets fire flow standards.

Significance after Mitigation

The water study would determine the quality and available capacity of the City's water supply infrastructure that would serve the proposed project's water demand and fire flow needs. Any necessary improvements to the water supply system would be identified and implemented to ensure that the project would be adequately served and applicable requirements met. With preparation of the water study and implementation of any identified infrastructure improvements, in accordance with Mitigation Measure 4.5-2, the impact on water supply infrastructure capacity would be reduced to a **less-than-significant** level.

Impact 4.5-3: Effects on the combined sewer system conveyance capacity

Wastewater generated by the project would not exceed the capacity of the City's combined sewer system. Because the existing combined sewer system conveyance pipelines are sufficient to serve the project during large storm events and the project would pay the Combined Sewer Development Fee for their wastewater contributions to the CSS, this impact would be **less than significant**.

The project site is served by the City's CSS for conveyance of wastewater. The proposed project would not result in changes to existing wastewater flows from the Heilbron House and would not change its existing service connection to the main under 7th Street. The project would connect to the 30-inch CSS main within 7th Street for wastewater drainage. The City has indicated that the CSS mains in the vicinity of the project site have sufficient capacity to serve the increased wastewater flows from the new office building during dry weather (Dalrymple, pers. comm., 2017a). A new 72-inch main in P Street, between 5th and 7th Streets, was installed in 2013 (Dalrymple, pers. comm., 2017c). In 2016, the main in 7th Street, between P and K Streets, was upsized.

At full occupancy, the projected wastewater generation would be approximately 136,000 gpd (see Table 4.5-6). The project's water conservation measures, including the low-flow fixtures (described in Impact 4.5-1), are not accounted for in the wastewater demand estimates and would further reduce the volume of wastewater generated by the new office building.

Table 4.5-6 Estimated Wastewater Flows for the Proposed Project

Use	Size (sq. ft.)	ESD Equivalent Rate	Total ESDs	Flow Rate (gpd/ESD)	Estimated Wastewater Flows (gpd)
Office Building Space[1]	700,000	0.2/1,000 sq. ft.	140	400	56,000
Amenities[1]	100,000	2/1,000 sq. ft.	200	400	80,000
Total	**800,000**	**NA**	**340**	**NA**	**136,000**

Note: NA = not applicable

[1] The amount of building space used for offices and exact breakdown of space for each of the amenities, including the food court and retail, are unknown. Therefore, this analysis is a conservative estimate of wastewater flows based on the assumption that up to 700,000 gross square feet (gsf) would be office space and the amenities would total 100,000 gsf, using the conservative assumption that the wastewater flows are based on the conservative flow rate of 2 ESDs/1,000 sq. ft.

Source: Compiled by Ascent Environmental, Inc. in 2017

Prior to connection to the CSS, and to address the project's increases in sewer flows to the CSS, DGS would pay the City's Combined Sewer Development Fee as defined in Chapter 13.08 of the City Code. This fee is used to fund an appropriate share of the capital costs of the CSS facilities. The City Department of Utilities is designing the 3rd Street sewer upsizing project to handle increased flows from projects in the downtown area

(Dalrymple, pers. comm., 2017b). The mitigation fees paid by DGS would likely be directed towards the new sewer on 3rd Street. If adequate funding is secured, the 3rd Street project could begin construction in 2018 (Dalrymple, pers. comm., 2017c). Additionally, projects are only required to analyze existing systems to the nearest 18-inch mainline. Because this project would connect into an existing 30-inch mainline, this project would not be required to prepare hydraulic analysis of the existing system.

The project would increase wastewater flows to the CSS. There is capacity for the project's wastewater flows, the project would include water conservation measures that would further reduce wastewater flows below levels estimated in Table 4.5-6. Therefore, the project would not require or result in the construction of new wastewater conveyance facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. In addition, the City's Sewer Development Fee would be paid and directed towards upgrading the CSS system. For these reasons, this would be a **less-than-significant** impact.

Mitigation Measures

No mitigation is required.

Impact 4.5-4: Effects to CSS treatment capacity

Wastewater generated by the project combined with stormwater generated from large storm events would, on rare occasions (less than once per year in the past 10 years), exceed the capacity of the CWTP and Pioneer Reservoir treatment capacity. Although the City has an operating agreement with Regional San that allows conveyance of up to 60 mgd to that facility, project-generated wastewater flows combined with stormwater from significant storm events could exceed the capacity of the combined system. However, exceedance of treatment capacity of the combined system is a rare event, the City is implementing the Combined Sewer System Improvement Plan to make improvements throughout the system, and the project would pay the Combined Sewer Development Fee for their wastewater contributions to the CSS. The addition of wastewater flows from the project would therefore be **less than significant**.

The projected wastewater discharge from the project is estimated to be 136,000 gpd (see Table 4.5-6). The proposed project would not result in changes to existing wastewater flows from the Heilbron House. Wastewater flows from the child care facility proposed as modular buildings on the roof plaza on the Subterranean Building is included in the overall project wastewater generation. The City of Sacramento's current average dry weather flow to the Regional San WWTP is 18 mgd, and the City's operating agreement with Regional San allows the City to convey up to 60 mgd to the facility. Thus, during dry weather, the City's remaining available capacity at the Regional San WWTP would be 42 mgd, which would be sufficient to serve the project.

During storm events, the wastewater and stormwater flows in the CSS exceed 60 mgd. Excess flows are conveyed to the CWTP and Pioneer Reservoir for treatment before being discharged into the Sacramento River. During peak storm events, the CSS in-line storage and CWTP and Pioneer Reservoir treatment capacities are sometimes exceeded, which results in untreated combined sewer overflows being released to the Sacramento River. As described above under "Combined Sewer Overflows and CSS Improvements," the City has constructed and is planning improvement projects to enhance the CSS capacity and operation, the effect of which has been to decrease overflow events from seven per year in the early 1990s prior to implementation of the CSSIP, to less than once per year in the past 10 years.

Although the number of treated and untreated combined sewer overflows released to the Sacramento River has substantially declined, the CSS, including its treatment plants (i.e., CWTP and Pioneer Reservoir) do not have sufficient capacity to treat wastewater and stormwater flows in the CSS during severe storm events. However, exceedance of treatment capacity at the CWTP and Pioneer Reservoir is a rare event (once in every 10 years), the City is implementing the Combined Sewer System Improvement Plan to make improvements throughout the system, and the project would pay the Combined Sewer Development Fee for their wastewater contributions to the CSS. In addition, as discussed below for Impact 4.5-5, stormwater runoff and wastewater flows would be separated on the P Street Block as part of the proposed project. The new

storm drain system on the P Street Block would be connected to the existing separate City storm drain system. Therefore, with project implementation, stormwater flows into the CSS would be reduced during storm events. For these reasons, and because there is sufficient capacity to treat wastewater flows from the proposed project during dry weather, implementation of the project would not adversely affect the CSS wastewater treatment plant capacity. The addition of wastewater flows from the project would therefore be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 4.5-5: Effects on storm drain capacity

The project would not increase the percentage of impervious coverage on the project site. The State would meet City requirements for demonstrating that the proposed project would not impact the storm drain collection system by increasing the volume of stormwater runoff and wastewater flows. This impact would be **less than significant**.

The P Street Block, excluding the area containing the Heilbron House, currently has close to 100 percent impervious coverage, with occasional asphalt/concrete "cut outs" with mature trees in the middle of the P Street Block and along the 7th Street, 8th Street, and O Street sides of the existing parking lot. The project would not result in any changes to the landscaping around Heilbron House. Because the project would replace the existing parking lot on the P Street Block with a new office building, it would not change the impervious surface area on the P Street Block. The proposed child care facility would consist of modular buildings placed on the rooftop plaza of the Subterranean Building. The rooftop plaza is already an impervious surface and placement of modular buildings would not alter the area of impervious surface or stormwater generation.

As part of the project, stormwater runoff and wastewater flows on the P Street Block would be separated. The new storm drain system on the P Street Block would be connected to the existing 18-inch storm drain in 7th Street that flows north to N Street. The new office building at P Street Block would require an approximate 10-inch storm drain connection to a new onsite stormwater management system that would be constructed by the project. Stormwater would be collected onsite and treated per City requirements prior to releasing the stormwater to the 7th Street storm drain in Basin 52. Ultimately, stormwater discharged to Basin 52 would be discharged to the Sacramento River. Grading of the P Street Block would be coordinated with the storm drain design to ensure that all site runoff is effectively collected in the site's storm drain management system (ARUP 2017b).

Because the project would not increase impervious surfaces, the project would not increase stormwater runoff over existing conditions. Therefore, project-related stormwater runoff would not contribute flows over existing conditions. The project would not result in an increase in stormwater runoff from the site and stormwater runoff would be captured and retained on site and released at a time when capacity in the storm drain system is available. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 4.5-6: Increased demand for electrical service

The project would include a 400-kilowatt solar photo-voltaic energy system to provide electricity to the new building and support the project goal of zero net energy. Electrical-infrastructure improvements would be necessary and constructed as part of the project. SMUD has also confirmed that it has adequate capacity and infrastructure to serve the project. This impact would be **less than significant**.

The incoming electrical service for the proposed project would be obtained from SMUD. The existing service to the site is served from an existing network vault (8050V), located on 8th Street, which is at full capacity. As part of the project, the 21KV line at 7th and Q Streets would be extended north one block to the southwest corner of the P Street Block at 7th and P Streets (DGS 2017). The incoming electrical service voltage would be 21kV, 3-phase based on 8 megawatt (mw) estimated load for the new office building. The retail and food court uses would require a separate 208V service from SMUD. Existing service to the Heilbron House will be retained and utility relocation will be provided as necessary. Electrical service to the child care facility would be provided by connecting to the existing electrical system in the Subterranean Building.

The new office building would be heated and cooled by the State's Central Plant. A renovation of the Central Plant was completed in 2009 and was constructed to both modernize the plant and increase capacity so that it could continue to provide heating and cooling for existing State facilities and also serve other facilities envisioned in the 1997 Capitol Area Plan. Expansion of the Central Plant to serve long-term loads was analyzed in *the Draft Environmental Impact Report for the Capitol West Side Projects Central Plant Renovation and West End Office Complex* (Capitol West Side Draft EIR; DGS 2005:3-19). An office building located at the P Street Block was identified as an opportunity site for office development in the State's CAP and the Capitol West Side Draft EIR analyzed a larger office building (1.4 million gross square feet [gsf]) than the proposed project. However, the office building analyzed in the Capitol West Side Draft EIR was not constructed and 1.3 million gsf remains to be constructed to meet the CAP goal of 2.5 million gsf. The new building at P Street Block, up to 800,000 square feet, would fall within the amount of State office space planned for by the CAP. Therefore, the project would not generate a demand for heating and cooling services from the Central Plant not already anticipated as part of the renovation, and therefore, would not increase the electrical demand to the Central Plant associated with cooling demand because the project is within the Central Plant's anticipated long-term loads.

The project's energy goal is to achieve ZNE, exceed the 2016 Building Energy Efficiency Standards, and meet a minimum of LEED v4 Silver rating consistent with Executive Order B-18-12. The ZNE strategy would be accomplished through a combination of a 400kW on-site photo-voltaic (PV) solar energy system (ARUP 2017a), high performance Energy Use Index (EUI) design criteria, and participation in SMUD renewable energy programs (Ander, pers. comm., 2017). The project is targeted to have an EUI of less than 30. EUI is a measure of the total energy consumed by building in a period, expressed as British thermal unit (Btu) per gross square foot (calculated by dividing the total energy consumed by a building in one year by the total gross floor area of the building). For comparison, existing buildings within downtown Sacramento have a baseline EUI score of approximately 100. Energy Star office equipment, energy efficient computer monitors, and LED (light-emitting diode) lighting would be used throughout the building (ARUP 2017a).

SMUD would continue to provide electrical service to the project site. SMUD has acknowledged that it has adequate electrical supplies to serve the project (Shimizu, pers. comm., 2017). A SMUD representative notes that splicing manhole(s), pull boxes, pad mounted (or vaulted) switch(es) and transformer(s) would be required. The electrical infrastructure required to serve the new office building would be constructed with the project. There are no planned disruptions to electrical service that would occur during construction of the project. The solar PV infrastructure would be connected to the SMUD system and any additional energy from SMUD to serve the building (e.g., during nighttime hours) would be from 100 percent renewable resources.

Because the project would generate its own electricity through a PV solar array and SMUD has confirmed that, if necessary, it has adequate electrical supply and infrastructure to serve the project, impacts related to providing electrical service would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 4.5-7: Increased demand for natural gas

The State's Central Plant would provide heating and cooling for the project. The Central Plant currently has natural gas connections that would be used to generate steam, to be used for heating purposes at the new office building. A medium pressure connection to a nearby gas line for the new building would be required to provide natural gas for the food court in the new building. PG&E has confirmed that the existing natural gas supply would be sufficient to serve the new office building; however, infrastructure adjacent to the project site would be inadequate for providing a medium pressure service connection for the project. Because the nearby natural gas infrastructure is insufficient to meet the infrastructure needs of the project, this impact would be **significant**.

The new office building would be heated and cooled by the State's Central Plant. A renovation of the Central Plant was completed in 2009 and was constructed to both modernize the plant and increase capacity so that it could continue to provide heating and cooling for existing State facilities and also serve other facilities envisioned in the 1997 Capitol Area Plan. Expansion of the Central Plant to serve long-term loads was analyzed in the Capitol West Side Draft EIR (DGS 2005:3-19). An office building located at the P Street Block was identified as an opportunity site for office development in the State's CAP and the Capitol West Side Draft EIR analyzed a larger office building (1.4 million gsf) than the proposed project. However, the office building analyzed in the Capitol West Side Draft EIR was not constructed and 1.3 million gsf remains to be constructed to meet the CAP goal of 2.5 million gsf. The new building at P Street Block, up to 800,000 square feet, would fall within the amount of State office space planned for by the CAP. Therefore, the project would not generate a demand for heating and cooling services from the Central Plant not already anticipated as part of the renovation, and therefore, would not increase the natural gas demand to the Central Plant associated with cooling demand because the project is within the Central Plant's anticipated long-term loads.

It is assumed that the food court included in the project would require natural gas to be delivered to the new office building to operate stoves, ovens, and other food heating appliances. PG&E has indicated there is sufficient natural gas supply for the project, but the low-pressure gas lines in O Street and 8th Street would not be sufficient for providing a medium pressure connection, if needed (Hendricks, pers. comm., 2017). Delivery of natural gas to the food court vendors would require a gas meter, gas pressure regulator, and seismic actuated valve to be installed outside of the new building. The new natural gas service connection would connect to existing gas lines in either 7th, O, or P Streets. An individual food kiosk at the food court is estimated to require approximately 130,000 Btus (127 cubic feet of natural gas) for each day of operation. It is estimate that there may be up to seven food service kiosks at the food court, resulting in demand for approximately 910,000 Btus (889 cubic feet of natural gas) per a day of operation.

There is adequate natural gas infrastructure and capacity to serve the Central Plant. However, the existing natural gas infrastructure adjacent to the project site is not sufficient to serve the medium pressure connection required for the food court in the new office building. Therefore, this impact would be **significant**.

Mitigation Measure 4.5-7: Extend high pressure natural gas infrastructure

DGS shall submit a request to PG&E for a medium pressure service connection. DGS and/or the design-build team shall coordinate with PG&E to determine what type of natural gas infrastructure would be needed to serve the project's need for a medium pressure service connection. In consultation with PG&E, DGS and/or the design-build team shall develop plans for and construct additional natural gas infrastructure required to for the project. The natural gas infrastructure required to be constructed for the project could include an extension of a high pressure natural gas line from either 7th and N Streets or from 6th and P Streets to the project site.

Significance after Mitigation

Through coordination with PG&E and construction of new natural gas infrastructure that would be required to meet the project's need for a medium pressure natural gas service connection, the impact on natural gas infrastructure would be reduced to a **less-than-significant** level. The types of effects on the environment

associated with ground disturbance resulting from construction of a new natural gas line to the project site are included as part of the environmental analysis in this document.

Impact 4.5-8: Result in inefficient and wasteful consumption of energy

The project would increase electricity and natural gas consumption at the site relative to existing conditions. However, electricity would be generated onsite with a system of photo-voltaic solar panels and any additional energy from SMUD would be from 100 percent renewable resources. While the project would increase the overall energy demand at the project site, the project would have reduced per capita energy use compared to other similar projects through implementation of energy efficiency measures that would meet LEED v4 Silver standards and would exceed Title 24 requirements, thereby providing an energy-efficient office and commercial project. The project would not result in an inefficient or wasteful consumption of energy. This impact would be **less than significant**.

Appendix F of the State CEQA Guidelines requires the consideration of the energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy usage (Public Resources Code Section 21100, subdivision (b)(3)). Neither the law nor the State CEQA Guidelines establish thresholds that define wasteful, inefficient, or unnecessary use. Compliance with California's Title 24 Energy Efficiency Standards would generally promote energy efficiency of structures during operation. However, compliance with building codes does not necessarily address all potential energy impacts during project construction and operation. For example, energy would be required to transport people to and from the project site.

Energy would be required to construct project elements, operate and maintain construction equipment, and produce and transport construction materials. The one-time energy expenditure required to construct the physical infrastructure associated with the project would be nonrecoverable. Most energy consumption would result from operation of construction equipment and actual indirect energy consumption (e.g., waste transport and disposal). The energy needs for project construction would be temporary and is not anticipated to require significant additional capacity or significantly increase peak or base period demands for electricity and other forms of energy. Construction equipment use and associated energy consumption would be typical of that associated with office and commercial projects in an urban setting. During construction, DGS would encourage the following measures (DGS 2017):

- reduce equipment idling times,
- if available for on-site delivery, diesel construction equipment will be powered with renewable diesel fuel that is compliant with California's Low Carbon Fuel Standards and certified as renewable by the California Air Resources Board Executive Officer
- use natural gas or electric forklifts inside the building,
- minimize use of building system ventilation and lighting outside of work hours, and
- promote the use public transportation and carpooling by contractor employees.

Non-renewable energy would not be consumed in a wasteful, inefficient, or unnecessary manner when compared to other construction sites in the region.

Operation of the project would be typical of office and commercial uses requiring electricity and natural gas for lighting, climate control, kitchen facilities, and day-to-day activities. Indirect energy use would include wastewater treatment and solid waste removal. As described in Impacts 4.5-6 and 4.5-7, above, electricity and natural gas services for the project would be provided by SMUD and PG&E, respectively. The project would increase electricity and natural gas consumption relative to existing conditions and would construct new utility connections to existing electrical and natural gas lines.

The State Administrative Manual and EO-18-12 require that the building perform 15 percent better than the relevant Title 24, Part 6 Energy Efficiency Standards. The project will be subject to the 2016 version of this standard, which is considered to be an aggressive energy efficiency target. Additionally, the project's energy goal is to achieve ZNE, consistent with Executive Order B-18-12. The project would achieve this goal by constructing a 400-kW PV solar system and supplementing the energy supply with 100 percent renewable energy provided through SMUD renewable energy programs. The project would also meet or exceed LEED v4 Silver certification, and would have an EUI of up to 30, well below the EUI for other buildings in the area. In order to meet these requirements, it is likely that the building would require a high-performance HVAC system, low energy LED lighting, daylight dimming and associated controls, a high-performance façade, and potential for some areas of operable windows with automated controls (ARUP 2017a). Building standards and energy efficiency features included in the project would be expected to reduce per capita energy use compared to similar developments.

Fuel consumption associated with vehicle trips generated by the project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. An estimated 65,546,550 gallons of gasoline and an estimated 2,510,240 gallons of diesel would be used during construction of the project. Based on the estimated annual vehicle miles traveled (5,486,315 miles) the project would generate during operation, diesel consumption is estimated at 17,954 gallons per year and gasoline consumption is estimated at 221,696 gallons per year. Fuel use estimates are calculated from the combination of fuel consumption rates and fuel mix by vehicle class from the California Air Resources Board's EMFAC2014 model with overall vehicle mile traveled and mode share by vehicle class modeled for the proposed project in CalEEMod (see Section 4.6, Air Quality, and Appendix E, Mobile Energy Calculations, of this EIR). State and federal regulations regarding fuel efficiency standards for vehicles in California are designed to reduce wasteful, unnecessary, and inefficient use of energy for transportation. The project involves redevelopment of an existing site located within 60 feet of a Regional Transit light rail station. There are also various bus lines that serve project vicinity, bike parking would be provided in the basement of the new building, and shower and locker facilities would be available to employees.

According to Appendix F of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall per capita energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. The electricity generated for the project, in part by on site sources or from SMUD, would be from 100 percent renewable resources. While the project would increase the overall energy demand at the project site, the project would reduce per capita energy use compared to other similar projects through implementation of energy efficiency measures that would meet or exceed LEED v4 Silver standards and would exceed Title 24 requirements, thereby providing a relatively energy efficient office and commercial project, and would encourage use of renewable energy sources. The project would not result in an inefficient or wasteful consumption of energy. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 4.5-9: Potential interruption of utility service during construction

The State would coordinate with utility providers and the City throughout project design, demolition, and construction process, as necessary, to ensure minimal disruption of utility services and minimal inconvenience to existing utility customers. This impact would be **less than significant**.

There are no planned disruptions of utility services as part of constructing the proposed project, other than shutting down utility service to the P Street Block itself during construction, including the Heilbron House. However, the P Street Block only contains the surface parking lot and the Heilbron House. California State Parks employees currently using the Heilbron House would be temporarily re-located to other State facilities during project construction (see Chapter 3, "Project Description). Construction activities at P Street Block could potentially interrupt utility services to existing land uses outside the P Street Block if such activities were to inadvertently damage existing infrastructure or create the need to reroute existing lines. The State

would coordinate with utility providers throughout the design and construction process, as necessary, to ensure minimal disruption of utility services and minimal inconvenience to existing utility customers. In addition, DGS would obtain encroachment permits from the City of Sacramento Department of Public Works prior to grading, excavation, construction, and utility connections or improvements within City rights-of-way. This requirement would avoid the potential for damage of existing utility lines and would provide adequate coordination for any required interim rerouting, thus avoiding the potential for interruption of existing utility service. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

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