Draft Environmental Impact Report

Gregory Bateson Building Renovation Project

SCH#2019039119

Prepared for:

California Department of General Services
707 3rd Street, MS-509
West Sacramento, CA 95605

July 16, 2019

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LIST OF ABBREVIATIONS

°F	degrees Fahrenheit
AB	Assembly Bill
af	acre feet
afy	acre-feet per year
BCE	before the current era
CA SDWA	Safe Drinking Water Act
CAA	federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	corporate average fuel economy
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAP	1997 Capitol Area Plan
CAP	criteria air pollutant
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBD	Central Business District
CCAA	California Clean Air Act
CCR	California Code of Regulations
CCTS	Central California Taxonomic System
CDFW	California Department of Fish and Wildlife
CE	current era
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
cfh	cubic feet per hour
CFR	Code of Federal Regulations
cfs	cubic feet per second
CHP	California Highway Patrol
CNDDB	California Native Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
CPS	Capitol Protection Section
CSO	Combined Sewer Overflow
CSS	Combined Sewer System
CSSIP	Combined Sewer System Improvement Plan
CWA	Clean Water Act
CWTP	Combined Wastewater Treatment Plant
dB	decibels
dBA	A-weighted decibels
Delta	Central Valley and Sacramento River/San Joaquin River Delta

DGS	California Department of General Services
diesel PM	particulate matter exhaust from diesel engines
DOT	U.S. Department of Transportation
Draft EIR	draft environmental impact report
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
EO	Executive Order
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Species Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FWTP	Fairbairn Water Treatment Plant
GHG	greenhouse gas
GWP	global warming potential
HAP	hazardous air pollutant
HMD	Hazardous Materials Division
HSR	historic structure report
HVAC	heating, ventilation and air conditioning
Hz	hertz
I-5	Interstate 5
kV	kilovolt
LCFS	Low Carbon Fuel Standard
L_{dn}	Day-Night Level
LEED v4	U.S. Green Building Council Leadership in Energy and Environmental Design
L_{eq}	Equivalent Continuous Sound Level
L_{max}	Maximum Sound Level
LOS	level of service
LTCP	long-term control plan
MBTA	Migratory Bird Treaty Act
mcl	maximum contaminant level
mg/kg	milligrams per kilogram
mgd	million gallons per day
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
MOU	Memorandum of Understanding
mPa	micro-Pascals
MPO	metropolitan planning organization
MSA	Metropolitan Statistical Area
$MTCO_2e$	metric tons of carbon dioxide equivalent
MTIP	Metropolitan Transportation Improvement Program
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy

N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NO	nitric oxide
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NO_X	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OEHHA	Office of Environmental Health Hazard Assessment
OPR	California Governor's Office of Planning and Research
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PG&E	Pacific Gas and Electric Company
PIA	Priority Investment Area
PM	particulate matter
PM_{10}	respirable particulate matter with aerodynamic diameter of 10 micrometers or less
$PM_{2.5}$	fine particulate matter with aerodynamic diameter of 2.5 micrometers or less
PRC	Public Resources Code
project	Gregory Bateson Building Renovation Project
RCP	Representative Concentration Pathway
Regional San	Sacramento Regional County Sanitation District
Regional San WWTP	Sacramento Regional Wastewater Treatment Plant
RPS	renewables portfolio standard
RWQCB	regional water quality control board
SACOG	Sacramento Area Council of Governments
SacRT	Sacramento Regional Transit District
SAM	State Administrative Manual
SANDAG	San Diego Association of Governments
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCS	Sustainable Communities Strategy
SCUSD	Sacramento City Unified School District
SFD	Sacramento Fire Department
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SO_2	sulfur dioxide
SOIS	Secretary of the Interior Standards
SPCC	Spill Prevention, Control, and Countermeasure
SPL	sound pressure level
SRCSD	Sacramento Regional County Sanitation District
SRWTP	Sacramento Regional Wastewater Treatment Plant

STAA	National Network for Surface Transportation Assistance Act
SVAB	Sacramento Valley Air Basin
SWRCB-DDW	State Water Resources Control Board Division of Drinking Water
TAC	Toxic air contaminant
TCCR	*Interstate 5 Transportation Corridor Concept Report*
US 50	U.S. Route 50
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tanks
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Planning Act
VdB	vibration decibels
VMT	vehicle miles traveled
WDR	waste discharge requirement
ZEV	zero-emission vehicle
ZNE	Zero Net Energy

1 INTRODUCTION

This draft environmental impact report (Draft EIR) evaluates the environmental impacts of the proposed Gregory Bateson Building Renovation Project. This Draft EIR has been prepared under the direction of the State of California Department of General Services (DGS) in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (Title 14 California Code of Regulations [CCR] Section 15000 et seq.). This chapter of the Draft EIR provides information on the following:

- project requiring environmental analysis (synopsis),
- type, purpose, and intended uses of the Draft EIR,
- scope of the Draft EIR,
- agency roles and responsibilities, and
- standard terminology.

1.1 PROJECT REQUIRING ENVIRONMENTAL ANALYSIS

The following is a synopsis of the project characteristics. For further information on the proposed project, see Chapter 3, "Project Description." The DGS Real Estate Services Division is responsible for the planning, permitting, and implementation of the Gregory Bateson Building Renovation Project, which would be funded by the State of California (State) through the State Projects Infrastructure Fund, as administered by DGS. The Gregory Bateson Building, owned by the State of California, is located at 1600 Ninth Street in the City of Sacramento, California. The four-story building occupies a full city block, bounded by Ninth Street on the east, P Street on the north, Eighth Street on the west, and Q Street on the south. The building is situated in downtown Sacramento near the California State Capitol, in the vicinity of many other state-owned buildings, and overlooks Roosevelt Park. The building is within the Capitol Area, subject to the 1997 Capitol Area Plan (DGS 1997), and is designated as "Office." The building, designed in the 1970s and dedicated in 1981, is historically significant due to its innovative design elements, which at the time were considered to be cutting edge for architectural design and energy efficiency.

An infrastructure study, completed by DGS 2008, as well as a facility condition assessment completed by DGS in 2015, identified a variety fire and life safety, building code, hazardous materials, and other infrastructure deficiencies. The proposed renovation project would address building-wide deficiencies, including: fire and life safety improvements; hazardous materials removal; water intrusion repairs and prevention; detailing of exterior facades and their components; updates and repairs for disabled accessibility compliance; applicable reinstatement of energy systems and enhancements; installation of modern heating, ventilation, and air conditioning (HVAC) and lighting controls; addition of security systems; and improvement of interior spaces (e.g., replacement of finishes) that are at the end of their useful life. The building renovation is needed to ensure the safety and comfort of the tenants, and to avoid falling into an irreversible state of disrepair. Because of the building's historic designation, the proposed renovations would be designed to address the building's historic character, as well as correct the critical fire and life safety issues and other code deficiencies. The project goal is to achieve Zero Net Energy and Leadership in Energy and Environmental Design (LEED) v4 Silver certification.

1.2 PURPOSE AND INTENDED USES OF THIS DRAFT EIR

According to CEQA, preparation of an EIR is required whenever it can be fairly argued, based on substantial evidence, that a proposed project may result in a significant environmental impact. An EIR is an informational document used to inform public-agency decision makers and the general public of the significant environmental impacts of a project, identify possible ways to minimize the significant impacts, and describe reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the

significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project. This Draft EIR has been prepared to meet the requirements of a project EIR as defined by Section 15161 of the State CEQA Guidelines. A project EIR focuses on the changes in the physical environment that would result from the implementation of a project, including its planning, construction, and operation. The State's intention in preparing a project EIR is that no further environmental analysis would be required for additional regulatory approvals following approval of the project, absent conditions requiring a subsequent EIR, a supplement to the EIR, or an addendum. (See State CEQA Guidelines Sections 15162–15164.)

1.3 SCOPE OF THIS DRAFT EIR

It has been determined that renovation of the existing Bateson Building would not significantly affect a number of environmental resource topics. Under the CEQA statute and the State CEQA Guidelines, a lead agency may limit an EIR's discussion of environmental effects when such effects are not considered potentially significant (PRC Section 21002.1[e]; State CEQA Guidelines Sections 15128, 15143). Information used to determine which impacts would be potentially significant was derived from review of the proposed project; review of applicable planning documents and CEQA documentation; field work; feedback from public and agency consultation; and comments received on the Notice of Preparation (NOP) (see Appendix A of this Draft EIR). Summary discussions of the project effects found not to be significant are presented in Section 4.2. The scope of analysis is then focused on the following environmental resources as presented in Sections 4.3 through 4.11:

- Archaeological, Historical, and Tribal Cultural Resources,
- Transportation and Circulation,
- Utilities and Infrastructure,
- Air Quality,
- Greenhouse Gas Emissions and Climate Change,
- Energy,
- Noise,
- Hazards and Hazardous Materials, and
- Biological Resources.

This Draft EIR also discusses the other CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts, significant unavoidable impacts, alternatives) in Chapters 5 through 7.

1.4 AGENCY ROLES AND RESPONSIBILITIES

1.4.1 LEAD AGENCY

DGS is the lead agency responsible for approving and carrying out the project and for ensuring that the requirements of CEQA have been met. After the EIR public-review process is complete, the Director of DGS will determine whether to certify the EIR (see State CEQA Guidelines Sections 15090) and approve the project.

1.4.2 TRUSTEE AND RESPONSIBLE AGENCIES

A trustee agency is a State agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California. The only trustee agency that has jurisdiction over resources potentially affected by the project is the California Department of Fish and Wildlife (CDFW).

Responsible agencies are public agencies, other than the lead agency, that have discretionary-approval responsibility for reviewing, carrying out, or approving elements of a project. Responsible agencies should participate in the lead agency's CEQA process, review the lead agency's CEQA document, and use the document when making a decision on project elements. For example, the City of Sacramento will use this EIR for discretionary actions such as sidewalk or roadway encroachment permits and permits for connections to City-operated utilities. Agencies that may have responsibility for, or jurisdiction over, the implementation of elements of the project include the following:

STATE AGENCIES

- California State Parks, Office of Historic Preservation (OHP)
- California Air Resources Board (CARB)
- California Highway Patrol, Capitol Protection Section (CPS)
- California Department of Fish and Wildlife (CDFW)

REGIONAL AND LOCAL AGENCIES

- City of Sacramento
- Sacramento Air Quality Management District (SMAQMD)

1.4.3 REQUIRED PERMITS AND APPROVALS

The following list identifies permits and other approval actions likely to be required before implementation of individual elements of the proposed project.

STATE ACTIONS/PERMITS

California State Parks, Office of Historic Preservation: Review of project design pursuant to PRC Sections 5024(f) and 5024.5 regarding historic resources and consultation regarding the project's potential to adversely affect the Gregory Bateson Building at 1600 Ninth Street, which is listed on the California Register of Historic Resources.

Central Valley RWQCB (Region 5): National Pollutant Discharge Elimination System construction stormwater permit (Notice of Intent to proceed under General Construction Permit), discharge permit for stormwater, general order for dewatering, recycled water permit.

REGIONAL AND LOCAL ACTIONS/PERMITS

City of Sacramento: Sidewalk and roadway encroachment permits, permits for connections to City operated utilities.

SMAQMD: Permit to construct and permit to operate.

1.5 PUBLIC REVIEW PROCESS

In accordance with CEQA regulations, an NOP was distributed on March 22, 2019, to responsible agencies, interested parties and organizations, and private organizations and individuals that could have interest in the project. The NOP was available at the DGS Environmental Services Section office at 707 3rd Street, MS-509, West Sacramento; at the Sacramento Central Library at 828 I Street, Sacramento; on line at https://www.dgs.ca.gov/RESD/Resources/Page-Content/Real-Estate-Services-Division-Resources-List-Folder/Information-and-Resources-for-CEQA; and availability of the NOP was advertised in The Sacramento Bee. In addition, DGS held a scoping meeting on April 10, 2019. The purpose of the NOP and the scoping meeting was to provide notification that an EIR for the Gregory Bateson Building

Renovation Project was being prepared and to solicit input on the scope and content of the document. The NOP and responses to the NOP are included in Appendix A of this Draft EIR.

This Draft EIR is being circulated for public review and comment for a period of 45 days. During this period, comments from the general public as well as organizations and agencies on environmental issues may be submitted to the lead agency.

A public meeting will be held on the Draft EIR on Wednesday August 21, 2019, between 4:30 p.m. and 6:30 p.m. at the Tsakopoulos Library Galleria, located at 828 I Street Sacramento, CA 95814, in the East Room. Upon completion of the public review and comment period, a Final EIR will be prepared that will include both written and oral comments on the Draft EIR received during the public-review period, responses to those comments, and any revisions to the Draft EIR made in response to public comments. The Draft EIR and Final EIR will comprise the EIR for the project.

Before approving the Gregory Bateson Building Renovation Project, the lead agency is required to certify that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the lead agency.

1.6 DRAFT EIR ORGANIZATION

This Draft EIR is organized into chapters, as identified and briefly described below. Chapters are further divided into sections (e.g., Chapter 4, "Environmental Impacts and Mitigation Measures" and Section 4.6, "Air Quality"):

Chapter 1, "Introduction": This chapter provides a description of the lead and responsible agencies, the legal authority and purpose for the document, and the public review process.

Chapter 2, "Executive Summary": This chapter introduces the Gregory Bateson Building Renovation Project; provides a summary of the environmental review process, effects found not to be significant, and key environmental issues; and lists significant impacts and mitigation measures to reduce significant impacts to less-than-significant levels.

Chapter 3, "Project Description": This chapter describes the location, background, and goals and objectives for the Gregory Bateson Building Renovation Project, and describes the project elements in detail.

Chapter 4, "Environmental Impacts and Mitigation Measures": The sections within this chapter evaluate the expected environmental impacts generated by the Gregory Bateson Building Renovation Project, arranged by subject area (e.g., Energy, Noise). Section 4.1 explains the approach to the environmental analysis. Section 4.2 provides discussion related to the environmental resources that the project would not affect. The remaining subsections of Chapter 4 address environmental resources potentially affected by the project. Each subsection describes the regulatory background, existing conditions, analysis methodology, and thresholds of significance. The anticipated changes to the existing conditions after project implementation are then evaluated for each subject area. For any significant or potentially significant impact that would result from project implementation, mitigation measures are presented and the level of impact significance after mitigation is identified. Environmental impacts are numbered sequentially within each section (e.g., Impact 4.6-1, Impact 4.6-2, etc.). Any required mitigation measures are numbered to correspond to the impact numbering; therefore, the mitigation measure for Impact 4.6-2 would be Mitigation Measure 4.6-2.

Chapter 5, "Cumulative Impacts": This chapter provides information required by CEQA regarding cumulative impacts that would result from implementation of the Gregory Bateson Building Renovation Project together with other past, present, and probable future projects.

Chapter 6, "Other CEQA-Mandated Sections": This chapter evaluates growth-inducing impacts and irreversible and irretrievable commitment of resources, and discloses any significant and unavoidable adverse impacts.

Chapter 7, "Alternatives": This chapter evaluates alternatives to the Gregory Bateson Building Renovation Project, including alternatives considered but eliminated from further consideration, the No Project Alternative, and two alternative development options. The environmentally superior alternative is identified.

Chapter 8, "References": This chapter identifies the organizations and persons consulted during preparation of this Draft EIR and the documents and individuals used as sources for the analysis.

Chapter 9, "Report Preparers": This chapter identifies the preparers of the document.

1.7 STANDARD TERMINOLOGY

This Draft EIR uses the following standard terminology:

"No impact" means no change from existing conditions (no mitigation is needed).

"Less-than-significant impact" means no substantial adverse change in the physical environment (no mitigation is needed).

"Potentially significant impact" means an impact that might cause a substantial adverse change in the environment (mitigation is recommended because potentially significant impacts are treated as significant).

"Significant impact" means an impact that would cause a substantial adverse change in the physical environment (mitigation is recommended).

"Significant and unavoidable impact" means an impact that would cause a substantial adverse change in the physical environment and that cannot be avoided, even with the implementation of all feasible mitigation.

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2 EXECUTIVE SUMMARY

2.1 INTRODUCTION

This summary is provided in accordance with California Environmental Quality Act Guidelines (State CEQA Guidelines) Section 15123. As stated in Section 15123(a), "an EIR [environmental impact report] shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical." As required by the guidelines, this chapter includes (1) a summary description of the Gregory Bateson Building Renovation Project, (2) a synopsis of environmental impacts and recommended mitigation measures (Table 2-1), (3) identification of the alternatives evaluated and of the environmentally superior alternative, and (4) a discussion of the areas of controversy associated with the project.

2.2 SUMMARY DESCRIPTION OF THE PROJECT

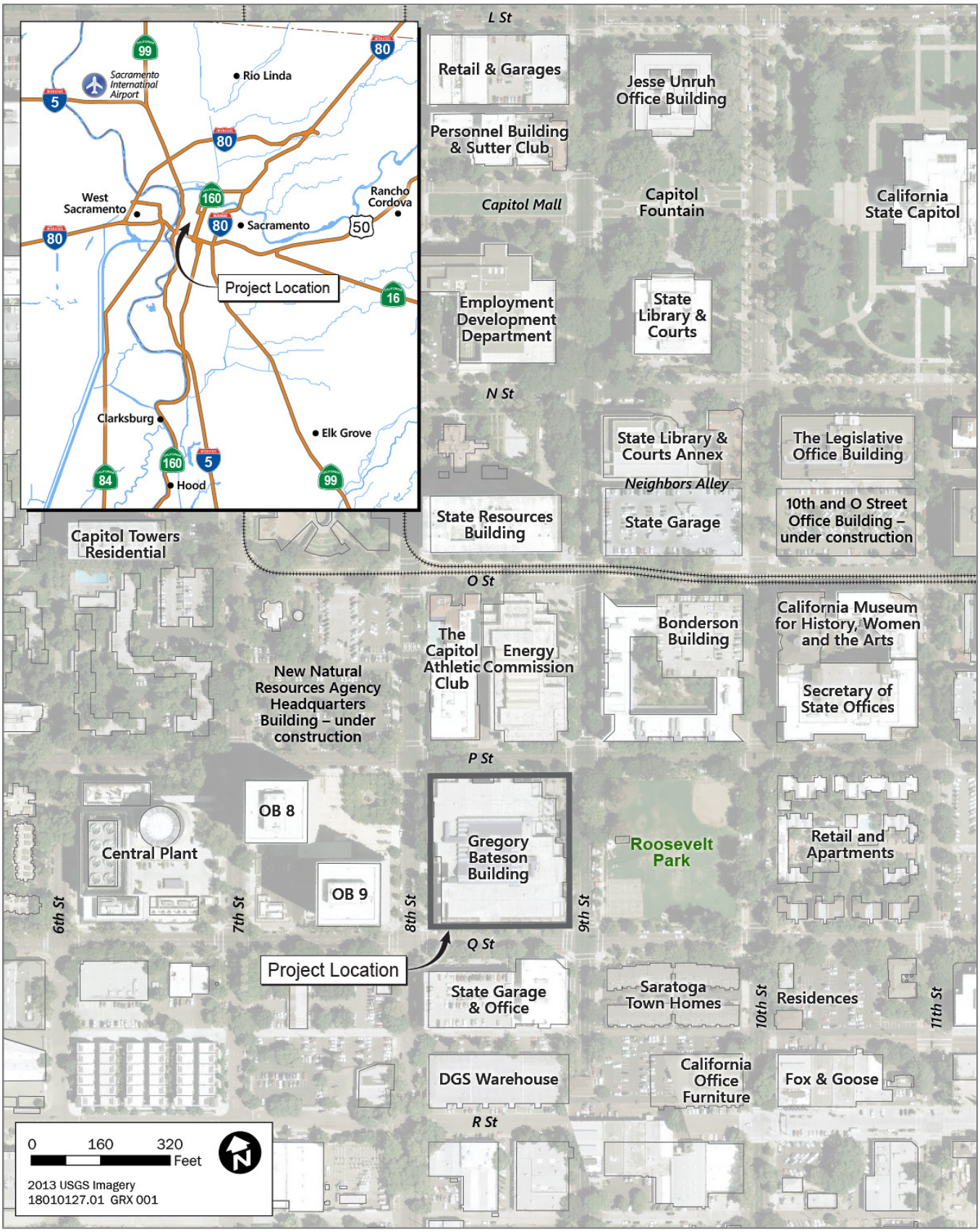
2.2.1 Project Location

The Gregory Bateson Building is located at 1600 9th Street in downtown Sacramento, California (Figure 2-1). The four-story building occupies a full city block (approximately 2.5 acres) owned by the State of California, bounded by 9th Street, P Street, 8th Street, and Q Street, near the California State Capitol. The gross building area is approximately 293,600 square feet (SF). The net tenant usable area is approximately 214,600 SF.

2.2.2 Background and Need for the Project

The Gregory Bateson Building, constructed in 1981, was designed by State Architect Sim van der Ryn and Peter Calthorpe. The Gregory Bateson Building was designed and constructed with an emphasis on energy conservation and improved amenities, with many pioneering energy conservation features including solar panels for water heating, large canvas tubes in the large atrium to serve as air shafts for air stratification/movement, thermal storage features, and day-lighting. In 2016, the State Historic Preservation Officer designated the Gregory Bateson Building as a historically significant building due to its innovative design elements, which at the time were considered to be cutting edge for architectural design and energy efficiency.

The 1970s era energy conscious system and building materials of wood and exposed natural concrete have resulted in building maintenance issues. Water intrusion at the roof level caused damage, and repairs to the atrium structural components and skylight system, and building wide roofing and flashing materials were completed in 2002. Notwithstanding the 2002 repairs, the building still has many leaks through the exterior walls and windows. Since at least 2006, the building's exterior has exhibited deterioration that appears to have contributed to extensive leaking. In addition, a 2008 California Department of General Services (DGS) infrastructure study identified a variety fire and life safety, building code, hazardous materials, building security, and other infrastructure deficiencies (DGS 2008). The 2015 DGS facility condition assessments of State office buildings ranked the Gregory Bateson Building fourth in Sacramento and fifth statewide for State-owned, DGS-controlled office buildings requiring renovation or replacement (DGS 2015). The building is included in the DGS Ten-Year Sequencing Plan (DGS 2018) and is necessary to fulfill office space needs in the Sacramento region. The building is in need of a major renovation to ensure the safety and comfort of the tenants, and to avoid falling into an irreversible state of disrepair.



Source: Sacramento County 2006. Adapted by Ascent Environmental in 2019

Figure 2-1 Project Location

2.2.3 Project Objectives

Consistent with, and in furtherance of DGS's mission and the 2018-2019 Five-Year Infrastructure plan, the objectives of the Gregory Bateson Building Renovation Project are to:

- extend the useful life and viability of the building by approximately 50 years;
- improve tenant safety and comfort;
- upgrade all mechanical, electrical, and plumbing infrastructure systems;
- upgrade fire and life safety systems;
- upgrade elevators;
- remove hazardous materials;
- meet current Americans with Disabilities Act (ADA) standards;
- halt the damaging water intrusion;
- establish a new office space plan, allowing greater flexibility and functionality;
- improve energy efficiency, reduce energy use, maintenance costs, and operations costs; and
- complete the renovations in such a manner that retains the overall historic nature of the resource.

2.2.4 Characteristics of the Project

A comprehensive renovation of the Gregory Bateson Building is proposed including improvements to fire and life safety; accessibility; repairs to historic elements that are deteriorating or causing deterioration; hazardous materials removal; replacement of the plumbing, heating, ventilation, and air conditioning systems; and replacement of the electrical power, telecommunications and security systems; landscaping; and renovation of the elevators. The project would likely provide a new office layout for the tenants. To the degree feasible, the project would be conducted in compliance with the Secretary of the Interior (SOI) Standards and Guidelines for the Rehabilitation of Historic Buildings as administrated by the State Historic Preservation Officer (SHPO). The project's sustainability goals are to meet the 2019 Building Energy Efficiency Standards, achieve Zero Net Energy (using a contract between the Sacramento Municipal Utility District [SMUD] and the State to provide electricity from 100 percent renewable sources to downtown State buildings), and achieve the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED v4) Silver certification.

The primary tenants of the Bateson Building are the California Health and Human Services Agency, the Department of State Hospitals, and the Department of Developmental Services. Approximately 960 employees currently work in the building and all would permanently move to the new Clifford L. Allenby State Office Building that is under construction at 1215 O Street, also in downtown Sacramento. After the Bateson Building is vacated and the renovation is complete, the building would be re-occupied with staff from several divisions of the California Natural Resources Agency such as California Department of Water Resources, California Department of Parks and Recreation, California Department of Forestry and Fire Protection, California Department of Fish and Wildlife, California Department of Conservation, and California Conservation Corps that are currently located in various state owned and leased properties in the downtown area. Per the State's Ten Year Sequencing Plan (2018), this would support the State's goal to relocate employees from other State buildings that are in poor condition or that are in commercial space where the State may exercise the option to terminate a lease. It is anticipated that the number of occupants in the building would remain at 960. However, if the final designs for office space provide for additional work spaces, there could be some modest increase in employees. For purposes of this EIR, a conservative estimate of a 10 percent increase is assumed. This would result in an increase of 96 employees for a total of 1,056 employees in the renovated Bateson Building.

2.3 ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

2.3.1 Project-Specific Impacts

This EIR has been prepared pursuant to the CEQA (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 1500, et seq.) to evaluate the physical environmental effects of the proposed Gregory Bateson Building Renovation Project. The DGS Real Estate Services Division is the lead agency for the project. DGS has the principal responsibility for approving and carrying out the project and for ensuring that the requirements of CEQA have been met. After the Final EIR is prepared and the EIR public-review process is complete, the Director of DGS is responsible for certifying that the EIR adequately evaluates the impacts of the project.

Table 2-1, presented at the end of this chapter, provides a summary of the environmental impacts for the Gregory Bateson Building Renovation Project. The table provides the level of significance of the impact before mitigation, recommended mitigation measures, and the level of significance of the impact after implementation of the mitigation measures.

2.3.2 Significant-and-Unavoidable Impacts and Cumulative Impacts

The Gregory Bateson Building Renovation Project would not result in any significant-and-unavoidable adverse impact (i.e., impacts that cannot be reduced to less than significant levels with feasible mitigation).

2.4 ALTERNATIVES TO THE PROPOSED PROJECT

The following provides brief descriptions of the alternatives evaluated in this Draft EIR. Table 2-2 presents a comparison of the environmental impacts between the alternatives and the proposed project.

- Alternative 1: No Project–No Development Alternative assumes no renovation of the Gregory Bateson Building and continued operation of the building in its current condition.
- Alternative 2: Restore Historic Features of the Gregory Bateson Building assumes that the historic features of the Gregory Bateson Building would be restored to the Secretary of the Interior Standards and Guidelines for the Restoration of Historic Buildings. The building restoration would be similar to the proposed project, but where project features conflict with historic features, this alternative would only implement building upgrades that could maintain or restore the historic characteristics of the building.

2.4.1 Environmentally-Superior Alternative

Because the No Project–No Development Alternative would avoid all adverse impacts resulting from construction and operation of the Gregory Bateson Building Renovation Project analyzed in Chapter 4, it is the environmentally superior alternative. However, the No Project–No Development Alternative would not meet the objectives of the project.

When the environmentally superior alternative is the No Project Alternative, the State CEQA Guidelines (Section 15126[d][2]) require selection of an environmentally superior alternative from among the other action alternatives evaluated. As illustrated in Table 2-2, below, the Full Historic Restoration Alternative would be environmentally superior action alternative because it would avoid impacts to the character defining features of the historic building and would reduce operational impacts because there would be no additional employees and no additional vehicular trips. However, full historic restoration under Alternative 2 would hinder DGS' ability to meet the project objectives, which are to implement fire-life safety improvements, ADA upgrades, infrastructure upgrades, and hazardous material removal, because preservation and restoration of the historic elements of the building would be prioritized

over other building improvements. It is anticipated that this would result in various fire and life safety measures being infeasible to implement. Therefore, Alternative 2 would not serve the safety and comfort of State employees with an up-to-code building.

2.5 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

A notice of preparation (NOP) was distributed for the Gregory Bateson Building Renovation Project on March 22, 2019, to responsible agencies, interested parties, and organizations, as well as private organizations and individuals that may have an interest in the project. A public scoping meeting was held on April 10, 2019. The purpose of the NOP and the scoping meeting was to provide notification that an EIR for was being prepared for the project and to solicit input on the scope and content of the environmental document. The NOP and responses to the NOP are included in Appendix A of this Draft EIR. Key concerns and issues that were expressed during the scoping process included the following:

- greenhouse gas emissions and climate change,
- energy use,
- tribal cultural resources,
- historic resources,
- city street trees,
- potential for impacts to Roosevelt Park,
- parking or roadway disturbance,
- utility line routing, and
- cumulative impacts.

These issues are addressed in this Draft EIR and are either identified as less than significant, or less than significant after mitigation.

Table 2-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Archaeological, Historical, and Tribal Cultural Resources			
Impact 4.3-1: Potential for Impacts on Significant Historic Archaeological Resources Construction activities resulting from project implementation would include ground disturbance at the project site. Excavations required to build and remove various structures over time, and to install underground utilities, have likely removed or degraded significant historic archaeological features that may be at the project site. However, there are areas that may yet be undisturbed, thus potentially retaining significant historic archaeological resources. Because earthmoving activities could potentially affect significant historic archaeological resources within these undisturbed areas, this impact is considered potentially significant.	PS	**Mitigation 4.3-1: Monitoring and Response Measures for Potential Unknown Historic Archaeological Resources** A cultural resources awareness training program will be provided to all construction personnel active on the project site during earth moving activities. The first training will be provided prior to the initiation of ground disturbing activities. The training will be developed and conducted in coordination with a qualified archaeologist. The program will include relevant information regarding sensitive cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. Where ground disturbing activities occur in native soils, or there is no evidence of extensive past ground disturbances, a qualified archaeologist will monitor ground-disturbing activities. If evidence of any historic-era subsurface archaeological features or deposits are discovered during construction-related earth-moving activities (e.g., ceramic shard, trash scatters), all ground-disturbing activity in the area of the discovery shall be halted until a qualified archaeologist can access the significance of the find. If after evaluation, a resource is considered significant, all preservation options shall be considered as required by CEQA, including possible data recovery, mapping, capping, or avoidance of the resource. If artifacts are recovered from significant historic archaeological resources, they shall be housed at a qualified curation facility. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and distributes this information to the public.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Impact 4.3-2: Potential for Impacts on Significant Prehistoric Archeological and Tribal Cultural Resources There are no known significant prehistoric archaeological resources on the project site. However, one previously recorded resource has been identified adjacent to the project site. Because of this, earthmoving activities associated with project implementation could disturb or destroy previously undiscovered significant subsurface prehistoric archaeological and tribal cultural resources associated with the recorded resource. This impact is considered potentially significant.	PS	**Mitigation 4.3-2: Monitoring and Response Measures for Potential Unknown Prehistoric Archaeological Resources and Tribal Cultural Resources** This mitigation measure expands on the actions included in Mitigation Measure 4.3-1 to also address encountering unknown prehistoric archaeological and tribal cultural resources. A representative or representatives from culturally affiliated Native American Tribe(s) will be invited to participate in the development and delivery of the cultural resources awareness training program included in Mitigation Measure 4.3-1. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The program will also underscore the requirement for confidentiality and culturally-appropriate treatment of any find of significance to Native Americans and behaviors, consistent with Native American Tribal values. Where ground disturbing activities occur in native soils, or there is no evidence of extensive past ground disturbances, or evidence suggests that imported soils have a high probability of containing artifacts and materials of importance to tribal entities, a qualified archaeologist will monitor ground- disturbing activities. Native American representative(s) will be invited to observe any excavations. Interested Native American Tribes will be provided at least seven days' notice prior to the initiation of ground disturbing activities. If any previously undisturbed native soil is imported to the project site for fill or other purposes, the archaeologist and Native American representative(s) will also monitor handling and placement of this material to determine if archaeological material may be imported with the native soil. The determination for initiating or ending monitoring disturbance of imported soils will be made based on coordination between the qualified archeologist and Native American monitor, with a final determination made by DGS. If evidence of any prehistoric subsurface archaeological features or deposits are discovered during construction-related earth-moving activities (e.g., lithic scatters, midden soils), all ground-disturbing activity in the vicinity of the discovery shall be halted until a qualified archaeologist and Native American representative can assess the significance of the find. If after evaluation, a resource is considered significant, or is considered a tribal cultural resource, all preservation options shall be considered as required by CEQA, including possible data recovery, mapping,	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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		capping, or avoidance of the resource. If artifacts are recovered from significant prehistoric archaeological resources, they shall be transferred to an appropriate tribal representative, or housed at a qualified curation facility. If artifacts or other materials must be removed, preference shall be given to transferring materials to an appropriate tribal representative and re-interring the material at a location on the project site. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and distributes this information to the public.	
Impact 4.3-3: Potential Discovery of Human Remains There are no known past cemeteries or burials on the project site. However, earthmoving activities associated with project implementation could disturb or destroy previously undiscovered human remains. This impact is considered potentially significant.	PS	**Mitigation 4.3-3: Response Protocol in Case Human Remains are Uncovered** Consistent with the California Health and Safety Code and the California Native American Historical, Cultural, and Sacred Sites Act, if suspected human remains are found during project construction, all work shall be halted in the immediate area, and the county coroner shall be notified to determine the nature of the remains. The coroner shall examine all discoveries of suspected human remains within 48 hours of receiving notice of a discovery on private or State lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she shall contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The NAHC shall then assign an MLD to serve as the main point of Native American contact and consultation. Following the coroner's findings, the MLD, in consultation with the State, shall determine the ultimate treatment and disposition of the remains.	LTS
Impact 4.3-4: Potential for Impacts on Historic Architectural Resources The Gregory Bateson Building Renovation Project would cause an adverse physical change to the Gregory Bateson Building and would result in a substantial adverse change in the significance of a historic architectural resource. This would result in a significant impact as described in State CEQA Guideline 15064.5(b)(1).	S	**Mitigation 4.3-4: Adherence to the Historic Structure Report, the Secretary of the Interior's Standards for the Treatment of Historic Properties, the California State Historical Building Code, and relevant National Park Service Preservation Briefs** DGS has a preservation architect under contract as part of the project criteria team. The preservation architect's role is to prepare a Historic Structure Report (HSR) for the Bateson Building in accordance with NPS Preservation Brief 43 and include mitigation measures in conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS) or the California Historical Building Code (CHBC). The HSR will identify historic preservation objectives and requirements for the treatments and use of the building prior to initiation of renovations to ensure that the historical significance and condition of the building	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
		is considered in the development of proposed renovation work. DGS will ensure that preservation treatment objectives for the Gregory Bateson Building will meet all SOIS for character-defining features designated in the HSR as having primary significance status, and meet as many SOIS as feasible for those character-defining features designated as having secondary significance status. In instances when DGS must address human safety issues not compatible with the SOIS, DGS will adhere to the CHBC to the extent feasible. The CHBC is defined in Section 18950 to 18961 of Division 13, Part 2.7 of the Health and Safety Code. The CHBC is a mechanism that provides alternative building regulations for permitting repairs, alterations and additions to historic buildings and structures. These standards and regulations are intended to facilitate the rehabilitation and preservation of historic buildings. The CHBC proposes reasonable alternatives so that a property's fire protection, means of egress, accessibility, structural requirements and methods of construction would not need to be modernized in a manner that compromises historic integrity. The CHBC is intended to allow continued, safe occupancy while protecting the historic fabric and character-defining features that give a property historic significance, thus promoting adherence to the SOIS. The CHBC recognizes that efforts to preserve the historic materials, features, and overall character of a historic property at times may be in conflict with the requirements of standard buildings codes. The Office of the State Fire Marshall (OSFM) has ultimate authority over health and safety and may require use of the standard building code in some instances. DGS will use the HSR to help meet SOIS and CHBC requirements since it includes treatments that draw from National Park Service Preservation Briefs relevant to the proposed renovation work, including, but not limited to, Briefs providing guidance on rehabilitating interiors of historic buildings, dangers of abrasive cleaning, cleaning and water-repellent treatments, use of substitute exterior materials, improving energy efficiency, and treating architectural terra-cotta. DGS will ensure that the HSR's historic preservation objectives and treatment requirements for the Gregory Bateson Building are incorporated into the design and construction specifications. DGS will consult with the project development team's preservation architect and with staff preservation architects within the Architectural Review and Environmental Compliance Unit of the State Office of Historic Preservation for guidance as needed.	

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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Transportation and Circulation			
Impact 4.4-1: Impacts to Intersection Operations The project would add an estimated 22 AM peak hour vehicle trips and 20 PM peak hour vehicle trips related to 96 new employees. Based on the traffic modeling and analysis, all study area intersections would operate at acceptable levels of service. Because the project would not cause any intersection operations to degrade to unacceptable levels, this would be a less-than-significant impact.	LTS	No mitigation is required for this impact.	LTS
Impact 4.4-2: Impacts to Freeway Off-Ramp Queuing The project would result in minor changes in queue lengths at study area freeway off-ramps. The project would not cause queuing at any freeway off-ramps that approach or extend beyond its storage capacity. Therefore, this would be a less-than-significant impact.	LTS	No mitigation is required for this impact.	LTS
Impact 4.4-3: Impacts to Transit The project would generate demand for nine additional transit trips during each peak hour due to 96 new employees. Because the project area is served by multiple and substantial transit services, the increase in demand would be accommodated by existing available transit. The project results in a minor increase in automobile (22 trips in the AM and 20 trips in the PM peak hour), bicycle (one trip in the AM and two trips in the PM peak hour), and pedestrian (one trip in each peak hour) trips and, therefore, is not anticipated to adversely affect light rail or bus operations. Potential transit users are able to access the nearby light rail stations and bus stations by utilizing existing sidewalks and crosswalks. This would be a less-than-significant impact.	LTS	No mitigation is required for this impact.	LTS
Impact 4.4-4: Impacts to Bicycle Facilities The project would result in an increase of one bicycle trip in the AM peak hour and two bicycle trips in the PM peak hour. Downtown Sacramento is served by an extensive bicycle network, providing project employees with adequate access to bicycle facilities. The project would not change existing bicycle facilities and the minimal number of additional bicycle trips is not anticipated to adversely affect the existing bicycle network. This would be a less-than-significant impact.	LTS	No mitigation is required for this impact.	LTS
Impact 4.4-5: Impacts to Pedestrian Facilities The project site is served by an extensive pedestrian network of sidewalks, crosswalks, and automatic pedestrian walk signals. The project would not change the existing network. Therefore, this would be a less-than-significant impact.	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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Impact 4.4-6: Construction-Related Impacts Project construction may require restricting or redirecting pedestrian, bicycle, and vehicular movements around the site to accommodate material hauling, materials staging, modifications to utility connections, and or exterior building repairs or modifications. Such restrictions would include fencing off the sidewalks around the building, but would not require vehicular lane closures. Material deliveries and haul trips would require temporary truck parking next to the building, using existing street parking. Construction traffic impacts would be localized and temporary; no off-site staging would occur as materials and equipment would be delivered using a Just-in-Time method; and DGS or its contractor would prepare and implement a Construction Traffic Management Plan to reduce the temporary impacts to the degree feasible. For these reasons, construction traffic impacts would be less-than-significant.	LTS	No mitigation is required for this impact.	LTS
Utilities and Infrastructure			
Impact 4.5-1: New or Expanded Utility Infrastructure The Gregory Bateson Building Renovation Project would include new irrigation and water supply infrastructure at the project site. Trenching to install the pipeline connection between the building and the main would occur incompliance with Best Management Practices (BMPs) set forth in the Stormwater Quality Design Manual for the Sacramento Region. No additional new or expanded infrastructure beyond those already identified for the project would be required. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.5-2: Adequacy of Water Supplies Implementation of the Gregory Bateson Building Renovation Project is estimated to result in a water demand of 7.52 afy (6,710 gpd), which would increase the overall demand on the City's water supply by 0.009 percent per year. When the renovated office building would be ready for re-occupancy in 2024, the estimated water demand would represent 0.005 percent of the City's surplus water supply (152,688 afy). The City would have adequate water supply to serve the project. Additionally, the project would reduce its water demand through implementation of water conservation measures that would exceed Title 24 requirements and meet LEED v4 Silver standards. The project's impact on water supply would be less than significant.	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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Impact 4.5-3: Impacts to Wastewater Infrastructure and Treatment Capacity Based on the project's estimated water demand, the projected wastewater discharge from the Gregory Bateson Building would be 6,710 gpd. Although the City's remaining available capacity at the Regional San WWTP would be sufficient to serve the project, the CSS and its treatment plants do not have sufficient capacity to treat wastewater and stormwater during storm events. However, exceedance of treatment capacity of the combined system is a rare event and the City is implementing the Combined Sewer System Improvement Plan to make improvements throughout the system. Because the improvement plans to the CSS are in place, the project would minimally contribute to existing CSS flows, and there is sufficient capacity to treat wastewater flows during dry weather periods, the project would result in a less–than significant impact on wastewater infrastructure.	LTS	No mitigation is required for this impact.	LTS
Impact 4.5-4: Impacts to Landfills and Compliance with Solid Waste Regulations Renovation of the Gregory Bateson Building is estimated to generate 13,000 cubic yards of debris. In accordance with Section 5.408 of the CALGreen Code, the project would implement a Construction Waste Management Plan for recycling and/or salvaging for reuse of a minimum of 65 percent of debris generated during construction. Operation of the renovated office building would result in similar waste generation as the current building. Although there may be a 10 percent increase of employees (96 new employees), the building would be required to recycle a minimum of 50 percent of the waste, as required for State operations by AB 75 and AB 939. Furthermore, there is adequate capacity at landfills in the region for disposal of solid waste generated by the project. Therefore, the project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste and this impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Air Quality			
Impact 4.6-1: Construction Emissions of Criteria Air Pollutants and Precursors (ROG, NO_X, PM_{10}, and $PM_{2.5}$) Construction of the project would result in project-generated emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from demolition, material and equipment delivery trips, worker commute trips, and other miscellaneous activities (e.g., application of architectural coatings). However, construction activities would not result in emissions of ROG, NO_X,	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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PM_{10}, or $PM_{2.5}$ that would exceed SMAQMD-recommended thresholds. Therefore, construction-generated emissions of criteria air pollutants or precursors would not contribute substantially to the nonattainment status of the SVAB with respect to the CAAQS and NAAQS for ozone, CAAQS PM_{10}, or the NAAQS for $PM_{2.5}$. This impact would be less than significant.			
Impact 4.6-2: Long-Term Operational Emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ Although project operations would result in the generation of long-term operational emissions of ROG, NOX, PM_{10}, and $PM_{2.5}$, the emissions would not exceed SMAQMD's thresholds of significance (65 lb/day for ROG, 65 lb/day for NO_X, 80 lb/day for PM_{10}, and 82 lb/day for $PM_{2.5}$). Therefore, operational emissions would not conflict with the air quality planning efforts or contribute substantially to the nonattainment status of the SVAB with respect to the CAAQS and NAAQS for ozone, CAAQS PM_{10}, or the NAAQS for $PM_{2.5}$. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.6-3: Mobile-Source CO Concentrations Long-term operational mobile-source emissions of CO generated by the implementation of the project would not result in localized concentrations of source CO emissions that would violate or contribute substantially to exceedances of the 1-hour CAAQS of 20 ppm or the 8-hour CAAQS of 9 ppm. Therefore, project operation would not expose sensitive receptors to substantial concentrations of CO. As a result, this impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.6-4: Exposure of Sensitive Receptors to TACs Construction- and operations-related emissions of TACs associated with the implementation of the project would not result an incremental increase in cancer risk greater than 10 in one million or a hazard index greater than 1.0 at existing or future sensitive receptors. Therefore, this impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Greenhouse Gas Emissions and Climate Change			
Impact 4.7-1: Project-Generated GHG Emissions Project construction would generate approximately 1,695 $MTCO_2e$. Operation of the project would generate approximately 474 $MTCO_2e$/year. However, both construction and operation of the project would include GHG efficiency measures consistent with all applicable State and local polices and regulations for the purpose of reducing GHG emissions and enabling achievement of the statewide	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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reduction targets of AB 32 of 2006 and SB 32 of 2016. The project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Therefore, this impact would be less than significant.			
Energy			
Impact 4.8-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Project Construction or Operations Although the addition of 96 new employees would result in more energy use, the project would be designed with energy efficiency features, implementation of the project would offset all electricity use through a 100 percent offsite renewable energy agreement through SMUD, and there would be no direct use of natural gas. Because there is no onsite parking at the Bateson Building, and because of the proximity to multiple modes of transportation in the downtown area, the project allows for a reduction in operational vehicle energy use. The project would not result in wasteful, inefficient and unnecessary consumption of energy during construction or operation. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.8-2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency Renewable energy generation pursuant to EO-12-18 would result in an increase in renewable energy use, which would directly support the goals and strategies in the State's 2008 EAP II. The renovated building features would improve overall building energy efficiency. The conservation of transportation fuel use would be encouraged through the lack of onsite parking and proximity to multiple modes of transportation in the downtown area. Therefore, implementation of the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Noise			
Impact 4.9-1: Short-Term Construction-Generated Noise Levels Proposed construction areas are located in close proximity to existing noise-sensitive receptors. Most noise- generating construction activity would be performed during daytime hours, when construction noise is exempt from noise standards by the City of Sacramento Noise Control Ordinance. Minor indoor construction activity may be required during the non-exempt evening and	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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nighttime hours (6 p.m. to 7 a.m., Monday through Saturday, and between 6 p.m. and 9 a.m. on Sunday). However, such indoor construction activities would not expose nearby noise-sensitive receptors to noise levels that exceed City of Sacramento Noise Control Ordinance nighttime noise standards. This impact would be less than significant.			
Impact 4.9-2: Long-Term (Operational) Traffic-Generated Noise Levels Project-generated traffic would not result in traffic noise increases that would expose existing receptors to noise levels or noise level increases that exceed the City of Sacramento noise standards. Therefore, this impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Hazards and Hazardous Materials			
Impact 4.10-1: Storage, Use, or Transport of Hazardous Materials Renovation of the Gregory Bateson Building would involve the storage, use, and transport of hazardous materials at the project site. However, use of hazardous materials would be in compliance with local, State, and federal regulations. Therefore, adverse impacts related to the creation of significant hazards to the public through routine transport, storage, use, disposal, and risk of upset would not occur. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.10-2: Exposure of Construction Workers and Others to Hazardous Materials According to the literature and database review conducted for the project site, hazardous materials (lead-based paint, lead-containing materials, and asbestos-containing materials) were identified in the building, but determined to be generally contained. In addition, levels of arsenic were detected within landscaping soils at the perimeter of the building. Renovation of the building would involve removal of materials containing lead, asbestos, or arsenic, which could result in the exposure of construction workers hazardous materials. Contractors and the State are required to comply with federal, State, and local regulations intended to protect workers and the public from exposure to hazardous materials as well as regulations related to remediation and disposal of contaminated materials. Compliance with these regulations would prevent the project from resulting in a significant risk to construction workers or the public. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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Biological Resources			
Impact 4.11-1: Disturbance to Swainson's Hawk, Other Nesting Raptors, and Other Native Nesting Birds Although unlikely, project implementation could result in direct or indirect disturbance to nesting Swainson's hawk, other nesting raptors, and other native nesting birds, if present within the large street trees adjacent to the project site. This is a potentially significant impact.	PS	**Mitigation 4.11-1: Protect Nesting Swainson's Hawks, Other Raptors, and Other Native Birds** DGS shall require that the following measures are implemented before and during construction: ▶ To minimize the potential for loss of nesting raptors and other native nesting birds, tree removal and construction activities that could result in disturbance to nesting raptors (i.e., external building renovations near or within the sightline of a raptor nest), to the maximum extent feasible, will be conducted during the nonbreeding season (September 1-January 31). If construction activities commence during the nonbreeding season, and no lapse in activities greater than 14 days occurs, no further mitigation will be required. ▶ If construction activities that could result in disturbance to nesting raptors commence during the breeding season (February 1 through August 31), a qualified biologist will conduct a survey no more than 14 days prior to the start of construction of the trees surrounding the building to assess whether any trees contain nesting Swainson's hawk, other nesting raptors, or other nesting native bird species (protected by Section 3503 of the Fish and Game Code). Construction activities will only commence if the biologist verifies that no active nests for any Swainson's hawks or other raptor species are present. If an active raptor nest is present, construction will not start until young have fledged. If construction activities that could result in disturbance to nesting raptors lapse for greater than 14 days during the breeding season, then an additional survey will be required prior to the restart of construction. ▶ If a species other than a raptor species is found nesting, DGS will coordinate with CDFW regarding the best approach for compliance with Section 3503 of the Fish and Game Code. For example, common species in urban environments, such as house finch, may tolerate some increase in noise or other construction activities within close proximity of the nest, and presence of these nests may have no effect on nearby construction activity.	LTS
Impact 4.11-2: Disturbance to Common Bat Roosts and Maternal Colonies Project implementation could result in inadvertent disturbance to roosts or maternal colonies of common bat species or inadvertent exclusion of these bats, if present within the exterior of the Gregory Bateson Building. This is a potentially significant impact.	PS	**Mitigation 4.11-2: Conduct Preconstruction Surveys for Bats and Exclude Bats from Roosting Site** DGS shall require that the following measures are implemented before and	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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		during construction: ▶ Prior to commencement of construction activities, a qualified biologist will conduct a survey of the exterior and interior of the Bateson Building for roosting bats. If evidence of bat use is observed, the species and number of bats using the roost will be determined. Bat detectors may be used to supplement survey efforts. If no evidence of bat roosts is found, then no further study and no further mitigation will be required. ▶ If bat roosts or a maternity colony are found, bats will be excluded from the roosting site before construction begins. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). Once, it is confirmed that bats are not present in the original roost site, construction activities may commence.	
Impact 4.11-3: Conflict With Any Local Applicable Policies Protecting Biological Resources Implementation of the project could result in the direct loss or temporary disturbance of trees protected under the City of Sacramento Tree Preservation Ordinance. This impact would be potentially significant.	PS	**Mitigation Measure 4.11-3: Remove and Replace Trees Consistent with the City of Sacramento Tree Preservation Ordinance** Before construction, DGS will complete a survey of trees at the project site and any other areas affected by excavation (e.g., utility work) and construction, and prepare and submit a detailed tree removal, protection, replanting, and replacement plan to the City arborist. The tree removal plan will be developed by a certified arborist. The plan shall include the following elements: ▶ The number, location, species, health, and sizes of all trees to be trimmed; have their roots affected; or to be removed, relocated, and/or replaced. This information will also be provided on a map/design drawing to be included in the in the project plans. ▶ Planting techniques, necessary maintenance regime, success criteria, and a monitoring program for all trees planted on, or retained on the project site. ▶ DGS will ensure implementation of the tree relocation/removal/replacement plan during project construction and operation.	LTS

Table 2-2 Summary Environmental Impacts of the Alternatives Relative to the Gregory Bateson Building Renovation Project

Environmental Topic	Proposed Project	Alternative 1: No Project – No Action Alternative	Alternative 2: Full Historic Restoration Alternative
Archaeological, Historical, and Tribal Cultural Resources	LTS with mitigation	Less	Less
Transportation and Circulation	LTS	Less	Less
Utilities and Infrastructure	LTS	Less	Less
Air Quality	LTS	Less	Less
Greenhouse Gas Emissions and Climate Change	LTS	Construction-Less Operation-Greater	Less
Energy	LTS	Construction-Less Operation-Greater	Less
Noise	LTS	Less	Less
Hazards and Hazardous Materials	LTS	Less	Similar
Biological Resources	LTS with mitigation	Less	Similar

3 PROJECT DESCRIPTION

3.1 PROJECT BACKGROUND AND NEED

The Gregory Bateson Building, constructed in 1981, was designed by State Architect Sim van der Ryn and Peter Calthorpe. Sim Van der Ryn was appointed to the position of State Architect in 1976 by Governor Jerry Brown, who tasked him with the development of a new Capitol Area Plan. A primary objective of the plan was to reduce the apparent scale of State office buildings and thereby create more user-oriented environments. The plan also set out to create positive examples of State office buildings as models of energy efficiency. Four buildings, the Employment Development Department Annex (Solar – Subterranean Building), Gregory Bateson Building, Paul Bonderson Building, and Warren-Alquist State Energy Building, were completed under the Brown administration Capitol Area Plan. The Gregory Bateson Building was designed and constructed with an emphasis on energy conservation and improved amenities, with many pioneering energy conservation features including solar panels for water heating, large canvas tubes in the large atrium to serve as air shafts for air stratification/movement, thermal storage features, and day-lighting. In 2016, the State Historic Preservation Officer designated the Gregory Bateson Building as a historically significant building due to its innovative design elements, which at the time were considered to be cutting edge for architectural design and energy efficiency.

The 1970s era energy conscious system and building materials of wood and exposed natural concrete have resulted in building maintenance issues. Water intrusion at the roof level caused damage, and repairs to the atrium structural components and skylight system, and building wide roofing and flashing materials were completed in 2002. Notwithstanding the 2002 repairs, the building still has many leaks through the exterior walls and windows. Since at least 2006, the building's exterior has exhibited deterioration that appears to have contributed to extensive leaking. In addition, a 2008 DGS infrastructure study identified a variety fire and life safety, building code, hazardous materials, building security, and other infrastructure deficiencies (DGS 2008). The 2015 DGS facility condition assessments of State office buildings ranked the Gregory Bateson Building fourth in Sacramento and fifth statewide for State-owned, DGS-controlled office buildings requiring renovation or replacement (DGS 2015). The building is included in the DGS Ten-Year Sequencing Plan (DGS 2018) and is necessary to fulfill office space needs in the Sacramento region. The building is in need of a major renovation to ensure the safety and comfort of the tenants, and to avoid falling into an irreversible state of disrepair.

3.2 PROJECT OBJECTIVES

Consistent with, and in furtherance of DGS's mission and the 2018-2019 Five-Year Infrastructure plan, the objectives of the Gregory Bateson Building Renovation Project are to:

- extend the useful life and viability of the building by approximately 50 years;
- improve tenant safety and comfort;
- upgrade all mechanical, electrical, and plumbing infrastructure systems;
- upgrade fire and life safety systems;
- upgrade elevators;
- remove hazardous materials;
- meet current Americans with Disabilities Act (ADA) standards;
- halt the damaging water intrusion;
- establish a new office space plan, allowing greater flexibility and functionality;
- improve energy efficiency, reduce energy use, maintenance costs, and operations costs; and
- complete the renovations in such a manner that retains the overall historic nature of the resource.

3.3 PROJECT LOCATION AND EXISTING CONDITIONS

The Gregory Bateson Building is located at 1600 9th Street in downtown Sacramento, California (Figures 3-1 and 3-2). The four-story building occupies a full city block (approximately 2.5 acres) owned by the State of California, bounded by 9th Street, P Street, 8th Street, and Q Street, near the California State Capitol. The gross building area is approximately 293,600 SF. The net tenant usable area is approximately 214,600 SF. Landscaping consists of planters around the perimeter of the building and in small plazas. Landscaped areas are currently irrigated by sprinklers and a drip irrigation system. The building is served steam and chilled water by the DGS Central Utility Plant for building heating and cooling. Electrical service is provided by the Sacramento Municipal Utility District (SMUD) through the following existing facilities:

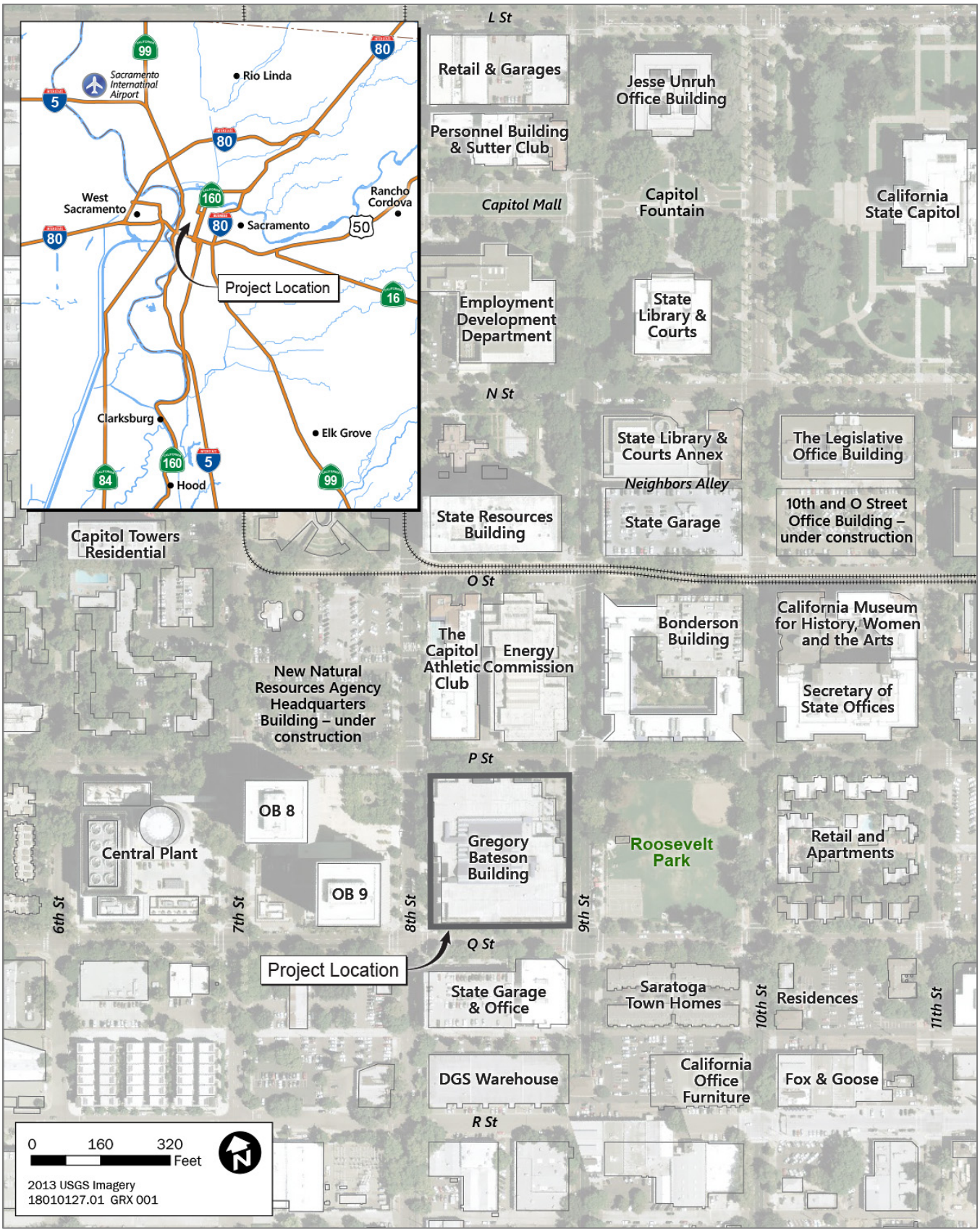
- 12-kilovolt (kV) underground infrastructure and facilities along the north side of the building (south side of P Street)
- 21-kV underground infrastructure and facilities along the north side of the building (south side of P Street)
- 12-kV underground infrastructure and facilities along the west side building from P Street to approximately 100 feet south of P Street (east side of 8th Street)
- 12-kV transformer vault located under the sidewalk along the west side of the building just south of P Street

The State's Capitol Area Plan identifies the block occupied by the Gregory Bateson Building (Block 265) as "Office," with the Bateson Building specifically identified as an existing office building (DGS 1997a). The building is within the Central Business District of the City of Sacramento (City of Sacramento 2015).

The Gregory Bateson Building is surrounded by Roosevelt Park, retail uses, and residential apartments, including the Saratoga Town Homes, to the east/southeast; a garage and office building to the south; State office buildings (OB 8 and 9) to the west; the site of the new Natural Resources Agency headquarters building, under construction, on the block to the northwest; The Capitol Athletic Club and Energy Commission to the north; and the Bonderson Building to the northeast.

3.4 PROJECT CHARACTERISTICS

A comprehensive renovation of the building is proposed including improvements to fire and life safety; accessibility; repairs to historic elements that are deteriorating or causing deterioration; hazardous materials removal; replacement of the plumbing, heating, ventilation, and air conditioning systems; and replacement of the electrical power, telecommunications and security systems; landscaping; and renovation of the elevators. The project would likely provide a new office layout for the tenants. To the degree feasible, the project would be conducted in compliance with the Secretary of the Interior Standards and Guidelines for the Rehabilitation of Historic Buildings as administrated by the State Historic Preservation Officer. The project's sustainability goals are to exceed the 2019 Building Energy Efficiency Standards, achieve Zero Net Energy, and achieve the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED v4) Silver certification.



Source: Data compiled by Ascent Environmental in 2019

Figure 3-1 Project Location

Source: Ascent Environmental 2019

Figure 3-2 View of Gregory Bateson Building from the Intersection of P and 9th Streets

3.4.1 Building Renovations and Upgrades

Table 3-1, below, lists the proposed interior and exterior building renovations to address code deficiencies, systems upgrades, water intrusion damage, safety, and upgrades.

INTERIOR RENOVATIONS	
Life Safety Systems	▶ smoke detectors ▶ fire alarms ▶ fire extinguishers ▶ fire sprinkler system ▶ fire pump/control room ▶ emergency light and power systems
Interior Upgrades	▶ floors ▶ windows ▶ interior ceilings, walls, and doors ▶ ADA compliance ▶ Modular systems furniture (MSF)
Mechanical Systems	▶ air-handling units, ductwork, and piping that provide conditioned air to the interior spaces ▶ plumbing fixtures, equipment, and piping throughout the building
Electrical Systems	▶ power systems and emergency generator ▶ lighting equipment ▶ Data/IT systems and equipment ▶ telecommunication equipment

INTERIOR RENOVATIONS	
	▶ audiovisual equipment ▶ SMUD may require additional transformer space if necessary due to building renovation. This additional space may include an expansion of the existing 12-kV transformer vault located under the sidewalk, or a new space sufficient to meet the entire needs of the installed electrical service as part of any renovation or improvements. ▶ SMUD may require additional 12-kV underground infrastructure along the west side of the block (east side of 8th Street) to accommodate any additional transformer requirements as part of any renovation or improvements.
Elevator Upgrades	▶ three existing hydraulic passenger elevators ▶ existing service elevator
Utility Upgrades	▶ domestic water supply plumbing ▶ water-efficient fixtures ▶ sprinkler water supply plumbing
Security	▶ card-key access ▶ CCTV security system
Hazardous Materials Abatement	▶ building materials containing hazardous materials such as asbestos and lead-based paint to be removed and properly disposed
External Renovations	
Repair Water Intrusion	▶ exterior walls ▶ exterior windows ▶ balcony walls and handrails ▶ roof finishes
Utility Connections	▶ new fire-water connection to the building ▶ new irrigation service to the site
Security	▶ CCTV security system
Landscaping Modifications	▶ additional planting ▶ irrigation system

3.4.2 Tenant Elements and Assumptions

The primary tenants of the Bateson Building are the California Health and Human Services Agency, the Department of State Hospitals, and the Department of Developmental Services. Approximately 960 employees currently work in the building and all would permanently move to the new Clifford L. Allenby State Office Building that is under construction at 1215 O Street, also in downtown Sacramento. After the Bateson Building is vacated and the renovation is complete, the building would be re-occupied with staff from several divisions of the California Natural Resources Agency such as California Department of Water Resources, California Department of Parks and Recreation, California Department of Forestry and Fire Protection, California Department of Fish and Wildlife, California Department of Conservation, and California Conservation Corps that are currently located in various state owned and leased properties in the downtown area. Per the State's Ten Year Sequencing Plan (2018), this would support the State's goal to relocate employees from other State buildings that are in poor condition or that are in commercial space where the State may exercise the option to terminate a lease. It is anticipated that the number of occupants in the building would remain at 960. However, if the final designs for office space provide for additional work spaces, there could be some modest increase in employees. For purposes of this EIR, a conservative estimate of a 10 percent increase is assumed. This would result in an increase of 96 employees for a total of 1,056 employees in the renovated Bateson Building.

3.4.3 Transit and Parking

There is no on-site parking at the Gregory Bateson Building other than a single parking space in the loading dock area for use by the building manager. The State of California owns, leases, and rents parking spaces in various locations in the downtown area. Employees use other parking spaces provided by the State, arrange for their own parking, or use alternative commute modes. This would not change for the employees who move into the renovated Bateson Building.

Employees now in the Bateson Building that would move to 1215 O Street would also continue to arrange for their own parking or use other commute modes, except that the new O Street building would include approximately 20 enclosed car parking spaces for tenant use (accommodating from 2 to 6 percent of the employees, depending on the number of occupants per vehicle) and approximately 5 additional spaces for building maintenance vehicle parking.

Transit availability at State office buildings is required by Government Code Sections 15808.1 and 14660, and Health and Safety Code Section 50093.5, which mandate that State office facilities with more than 200 employees or which directly serve the public be located within a "public transit corridor." This is defined in Health and Safety Code Section 50093.5 as "that area within one-quarter mile of a route on which the level of service is at, or above, the average for the transit system as a whole, according to the transit operator serving the area, and on which regularly scheduled public mass transit stops are located, or within one-quarter mile of an existing or planned public mass transit guideway or busway station, or within one-quarter mile of a multimodal transportation terminal serving public mass transit operations" (DGS 1997b). The Bateson Building is located two blocks south of a Sacramento Regional Transit light rail station on O Street that serves the Green, Gold, and Blue lines. In addition, there are bus stops for different routes and transit providers (e.g., Sacramento Regional Transit, El Dorado Transit) located within one-quarter mile of the building, including service on 9th Street at the front of the Bateson Building.

3.4.4 Energy Use

Electrical service to the building would continue to be served by the SMUD through the infrastructure described above. The State has a 20-year contract (signed in 2018) with SMUD to provide electricity from 100 percent renewable sources to State buildings in downtown Sacramento, including this building. This contract would be applied to the renovated building. As stated previously, the project would be designed to exceed the 2019 Building Energy Efficiency Standards, to achieve Zero Net Energy, and to achieve LEED v4 Silver certification. Energy Star office equipment, energy efficient computer monitors, and LED (light-emitting diode) lighting would need to be used throughout the building to achieve the energy goals. Electrical metering and control systems would be installed to control systems and monitor electrical loads on a per system basis (e.g., lighting, mechanical) and on a per floor basis.

The building does not have natural gas service, and no natural gas would be provided or used directly at the building after renovation. However, the building's heating and cooling is, and would continue to be, provided by chilled water and steam from the State's Central Utility Plant, which uses natural gas to generate steam.

There is an existing 150-kilowatt diesel generator located in a room near the loading dock that would be replaced as part of the building renovation. It is anticipated that it would be replaced with a 1,00-kilowatt generator. Electrical loads served by the emergency generator would include egress/exit lighting, elevators, fire alarm system, security system, and atrium smoke evacuation fans.

3.4.5 Construction Schedule

Project construction is projected to begin in winter 2020. Construction would take approximately 3 years and would be completed by the end of 2023, with tenant occupancy in 2024. The renovation work would include the following efforts; the construction contractor would determine the most efficient sequencing of work:

- relocation of current tenants, January - March 2021;
- hazardous materials abatement, December 2020 – January 2024;
- utility upgrades, December 2020 – January 2024;
- interior and exterior renovations, December 2020 – January 2024; and
- new tenant occupancy, February – April 2024.

The construction labor force would fluctuate depending on the phase of work. However, it is estimated that the building renovations would require an estimated 75 to 95 workers at peak times.

During construction, it may be necessary to restrict or redirect pedestrian, bicycle, and vehicular movements around the site to accommodate material hauling, materials staging, modifications to utility connections, and or exterior building repairs or modifications. Such restrictions would include fencing off the sidewalks around the building, but would not require extended vehicular lane closures. Material deliveries and haul trips would require temporary truck parking next to the building, using existing street parking. Vehicular, pedestrian, and bicycle access to apartments, offices, and other uses in the vicinity of the Bateson Building would be maintained at all times.

While the State is not subject to local laws and regulations, DGS would prepare a construction traffic control plan, consistent with Section 12.20.20 of the Sacramento City Code, that illustrates the location of the proposed work area; identifies the location of areas where the public right-of-way would be closed or obstructed and the placement of traffic control devices necessary to perform the work; shows the proposed phases of traffic control; and identifies the time periods when the traffic control would be in effect and the time periods when work would prohibit access to private property from a public right-of-way. The plan may be modified by the City at any time to eliminate or avoid traffic conditions that are hazardous to the safety of the public. The traffic control plan would also provide information on access for emergency vehicles to prevent interference with emergency response.

3.4.6 Construction Methods and Equipment

Project construction may involve the use of the following equipment:

- concrete/industrial saw,
- rubber tired or track dozer,
- tractors/loaders/backhoes,
- bobcats,
- off-highway trucks,
- crane,
- forklift, scissor lift
- asphalt spreader,
- roller/compactor,
- man-lift,
- boom lift,
- generator set,
- welding machine,
- compressor,
- haul trucks,
- concrete trucks,
- concrete pump trucks, and
- painting equipment.

Where feasible and available, diesel construction equipment would be powered by Tier 3 or Tier 4 engines, which reduce harmful exhaust gases as mandated by the California Air Resources Board (CARB) and U.S. Environmental Protection Agency. In addition, if available for on-site delivery, diesel construction equipment would be powered with renewable diesel fuel that is compliant with California's Low Carbon Fuel Standards and certified as renewable by the CARB executive officer.

There would be no offsite staging area used for office building construction. Materials and equipment would be delivered using a Just-in-Time (JIT) method where materials and equipment are delivered to the site by the supplier just when needed and not before.

It is estimated that the project would generate 13,000 cubic yards of debris and 13,000 cubic yards of construction material. Assuming approximately 12 cubic yards of material per truck, the project would result in approximately 2,200 total haul trips during construction.

Measures would be implemented during construction to prevent damage to nearby buildings and site features. Screening or other methods would be used as necessary to prevent flying debris (e.g., material released while demolishing concrete) from damaging nearby buildings.

No nighttime outdoor construction is anticipated. Indoor construction activities, such as installing wiring, drywall, and carpet, would be permitted during nighttime hours.

4 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

4.1 APPROACH TO THE ENVIRONMENTAL ANALYSIS

This draft environmental impact report (Draft EIR) evaluates and discloses the environmental impacts associated with the Gregory Bateson Building Renovation Project, in accordance with the CEQA (PRC Section 21000, et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 15000, et seq.).

It has been determined that renovation of the existing Gregory Bateson Building would not significantly affect a number of environmental resource topics. Under the CEQA statute and the State CEQA Guidelines, a lead agency may limit an EIR's discussion of environmental effects when such effects are not considered potentially significant (PRC Section 21002.1[e]; State CEQA Guidelines Sections 15128, 15143). Information used to determine which impacts would be potentially significant was derived from review of the proposed project; review of applicable planning documents and CEQA documentation; field work; feedback from public and agency consultation; and comments received on the Notice of Preparation (NOP) (see Appendix A of this Draft EIR). Summary discussions of the project effects found not to be significant are presented in Section 4.2.

Sections 4.3 through 4.11 present a discussion of regulatory background, existing conditions, environmental impacts associated with construction and operation of the project, mitigation measures to reduce the level of impact, and residual level of significance (i.e., after application of mitigation, including any impacts that would remain significant and unavoidable after application of all feasible mitigation measures). Issues evaluated in these sections consist of the environmental topics identified for review in the NOP (see Appendix A of this Draft EIR). Chapter 5 of this Draft EIR, "Cumulative Impacts," presents an analysis of the project's impacts considered together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. Chapter 6, "Other CEQA-Mandated Sections," includes an analysis of the project's growth inducing impacts, as required by Section 21100(b)(5) of CEQA. Chapter 7, "Alternatives," presents a reasonable range of alternatives and evaluates the environmental effects of those alternatives relative to the proposed project, as required by Section 15126.6 of the State CEQA Guidelines.

Sections 4.3 through 4.11 of this Draft EIR each include the following components.

Regulatory Background: This subsection presents information on the laws, regulations, plans, and policies that relate to the issue area being discussed. Regulations originating from the federal, state, and local levels are each discussed as appropriate.

Existing Conditions: This subsection presents the existing environmental conditions on the project site and in the surrounding area as appropriate, in accordance with State CEQA Guidelines Section 15125. The discussions of the environmental setting focus on information relevant to the issue under evaluation. The extent of the environmental setting area evaluated (the project study area) differs among resources, depending on the locations where impacts would be expected. For example, traffic impacts resulting from the proposed project are assessed for the local roadway network, whereas impacts to cultural resources are assessed for the footprint of project disturbance.

Environmental Impacts and Mitigation Measures: This subsection presents thresholds of significance and discusses potentially significant effects of the project on the existing environment, including the environment beyond the project boundaries, in accordance with State CEQA Guidelines Section 15126.2. The methodology for impact analysis is described, including technical studies upon which the analyses rely. The thresholds of significance are defined and environmental topics for which the project would have no impact are disclosed and dismissed from further evaluation. Project impacts and mitigation measures are numbered sequentially in each subsection (Impact 4.3-1, Impact 4.3-2, Impact 4.3-3, etc.). A summary impact statement precedes a more detailed discussion of the environmental impact. The discussion includes the analysis, rationale, and substantial evidence upon which conclusions are drawn. The determination of level of significance of the impact is defined in bold text. A "less-than-significant" impact is one that would not result in a substantial adverse change in the physical environment. A

"potentially significant" impact or "significant" impact is one that would result in a substantial adverse change in the physical environment; both are treated the same under CEQA in terms of procedural requirements and the need to identify feasible mitigation. Mitigation measures are identified, as feasible, to avoid, minimize, rectify, reduce, or compensate for significant or potentially significant impacts, in accordance with the State CEQA Guidelines Section 15126.4. Unless otherwise noted, the mitigation measures presented are recommended in the EIR for consideration by the State to adopt as conditions of approval. Any required mitigation measures are numbered to correspond to the impact numbering; therefore, the mitigation measure for Impact 4.3-2 would be Mitigation Measure 4.3-2.

Where an existing law, regulation, or permit specifies mandatory and prescriptive actions about how to fulfill the regulatory requirement as part of the project definition, leaving little discretion in its implementation, and would avoid an impact or maintain it at a less-than-significant level, the environmental protection afforded by the regulation is considered before determining impact significance. Where existing laws or regulations specify a mandatory permit process for future projects, performance standards without prescriptive actions to accomplish them, or other requirements that allow substantial discretion in how the they are accomplished, or have a substantial compensatory component, the level of significance is determined before applying the influence of the regulatory requirements. In this circumstance, the impact would be potentially significant or significant, and the regulatory requirements would be included as a mitigation measure.

This subsection also describes whether mitigation measures would reduce project impacts to less- than-significant levels. Significant-and-unavoidable impacts are identified as appropriate in accordance with State CEQA Guidelines Section 15126.2(b). Significant-and-unavoidable impacts are also summarized in Chapter 6, "Other CEQA-Mandated Sections."

References: The full references associated with the parenthetical references found throughout Sections 4.2 through 4.11 can be found in Chapter 8, "References," organized by section number.

4.2 EFFECTS FOUND NOT TO BE SIGNIFICANT

4.2.1 Aesthetics, Light, and Glare

The Gregory Bateson Building, located in downtown Sacramento, is in an urban setting. The building is surrounded by a mix of low-rise, mid-rise, and high-rise buildings as well as Roosevelt Park directly across 9th Street. There are no scenic vistas visible from the project site and the nearest designated state scenic highway, State Route 160, is located 7.5 miles south. Renovation of the building, as described in Chapter 2, "Project Description," would result in the temporary presence of construction equipment, materials, and personnel on the block bounded by P, Q, 8th, and 9th Streets over an approximately 3-year period. However, the renovation would not result in long-term alteration of the visual character or quality of the building. There would be no alteration in the building height, massing, lighting, glare, or shadows. Repairs and upgrades to the external portions of the building and landscaping would be implemented consistent with the building's existing aesthetic and historic values. Furthermore, the street tree canopy would be maintained. The local aesthetic character, as experienced by viewer groups in the area, would not be substantially altered. The project would not result in the substantial degradation of the existing visual character or quality of the site or its surroundings and this topic is not discussed further in this EIR.

4.2.2 Agricultural and Forestry Resources

The project involves renovation of an existing office building, located in the urban environment of downtown Sacramento. Surrounding land uses include office buildings, retail, residential apartments, a parking garage, public roadways, and an urban park with sports courts and fields (Roosevelt Park). As identified on the Sacramento County Important Farmland map (California Department of Conservation, Division of Land Resource Protection 2017), all of downtown Sacramento is identified as "Urban and Built-up Land." There are is no farmland, designated agricultural

uses, Williamson Act contracted lands, or forestry resources within the project site or vicinity. The project would have no impact on agricultural or forestry resources and this topic is not discussed further in this EIR.

4.2.3 Geology and Soils

The project site is not located within an Alquist-Priolo Earthquake Fault Zone and no mapped active or potentially active fault traces are known to traverse or project toward the site. Although the Sacramento area is located between three seismically active fault regions, the Bateson Building is not located on any known faults or traces of active faults. Surface fault rupture, therefore, is extremely unlikely. Limited ground-disturbing activities would be necessary for utility line installation; however, restorations would not affect the building foundation or structure. The utility trenching and renovations would not cause the building to be subject to seismic-related risks such as lateral spreading, landslides, subsidence, liquefaction, or erosion. Best management practices would be implemented during any utility trenching to protect receiving water quality from erosion and siltation. Additionally, implementation of interior and external building renovations would be implemented in compliance with applicable California Building Code standards and would not exacerbate earthquake potential in the project vicinity. Therefore, impacts to geology and soils would be less than significant and are not discussed further in this EIR.

4.2.4 Hydrology and Water Quality

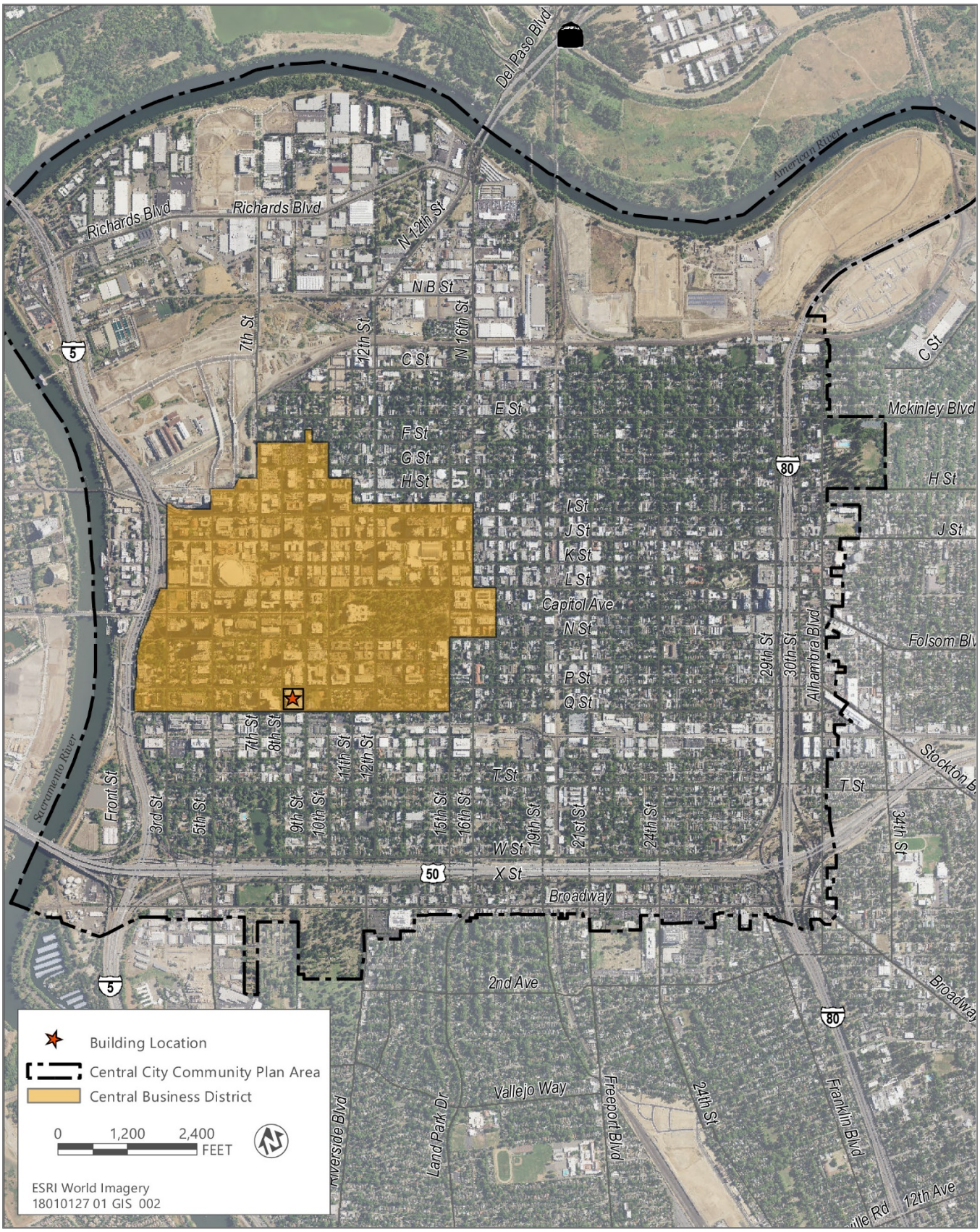
Renovating the Bateson Building would not introduce new impervious surfaces or alter site drainage. There are no natural drainage features on the site; stormwater is captured, directed to the City's combined sewer system, and treated before discharge to the Sacramento River. The project would involve limited trenching for utility connections; best management practices would be implemented to protect receiving water quality from erosion and siltation. There would be no increase in stormwater runoff and the quantity of stormwater infiltration to groundwater at the site is negligible due to the large amount of developed coverage and the high degree of compaction of uncovered areas. Therefore, the project would have a less-than-significant impact on stormwater drainage and water quality; these issues are not further discussed in this EIR.

Although downtown Sacramento is within the natural floodplain of the Sacramento River, with a one percent risk of flooding in any given year (100-year floodplain), the FEMA FIRM indicates that the flood risk is reduced in downtown Sacramento, including the project site, due to levees and the overall flood protection system (FEMA 2017). The project would not place new structures, including housing, in a flood hazard area nor impede or redirect flood flows. Therefore, the project would have no impact related to flood hazards and this issue is not discussed further in this EIR.

The City is not within an area subject to seiche, tsunami, or mudflows; therefore, these issues are not discussed further in this EIR.

4.2.5 Land Use

The Bateson Building, and the block it is located on, are State-owned. The project site is designated as "office" and shown as an existing office building in the State's Capitol Area Plan (CAP) (DGS 1997). State agencies are not subject to local plans, policies, and zoning regulations. However, in the exercise of its discretion, in addition to the State's planning documents, local plans and documents were reviewed for this EIR. The project site is located within the Central Business District (CBD) of the Central City Community Plan area, which is the core area of the City of Sacramento (City of Sacramento 2017) (Figure 4.2-1). The CBD is identified in the 2035 General Plan as a Priority Investment Area (PIA). PIAs are areas of the city that are the highest priority for investment and development through infill, reuse, or redevelopment. Renovation of the existing office building would not alter the existing land use of the site, would not physically divide the downtown community, would not conflict with existing land uses, and would be consistent with the CAP and City of Sacramento 2035 General Plan designations of office and PIA, respectively. No land use impact would occur and this issue is not discussed further in this EIR.



Source: Data provided by Sacramento County in 2015

Figure 4.2-1 Central City Community Plan Area

4.2.6 Population, Employment, and Housing

The project would not include construction of new housing, removal of housing, or new commercial business. Renovation of the existing office building in downtown Sacramento would not extend roads or other infrastructure to new areas that would induce growth in new locations. The construction labor force would fluctuate depending on the phase of work. However, it is estimated that the building renovations would require an estimated 75 to 95 workers at peak times. The building renovation efforts would be relatively modest and short term, and are not expected to result in employees relocating to the area. According to the latest labor data available from the California Employment Development Department (2019), 61,900 residents in Sacramento-Roseville-Arden Arcade Metropolitan Statistical Area (MSA) are employed in the construction industry. Based on applying the March 2019 unemployment rate of 4.3 percent for Sacramento-Roseville-Arden Arcade Metropolitan Statistical Area MSA to the construction sector, approximately 2,660 construction employees could be available in the region to work on the proposed project. As stated in Chapter 3, "Project Description," although it is anticipated that the number of occupants in the building would remain at 960, a conservative estimate of a 10 percent increase is assumed for this EIR. This would result in an increase of 96 employees for a total of 1,056 employees in the renovated Bateson Building. An increase of 96 employees would not be significant compared to citywide employment of 221,362 jobs in 2017 (US Census 2013-2017), adding approximately 0.04 percent to the 2017 citywide employment. This increase in jobs in the downtown Sacramento area could be filled by local residents and these jobs are consistent with State and local plans for job growth. Thus, the project would have a less-than-significant impact on population and housing and this issue is not discussed further in this EIR. The potential for growth-inducing effects is considered, as required by CEQA, in Chapter 6, "Other CEQA-Mandated Sections."

4.2.7 Public Services

The Sacramento Fire Department (SFD) provides fire prevention and protection services to the entire city, including the Bateson Building. Fire stations closest to the Bateson Building include:

- Station 1 at 624 Q Street,
- Station 2 at 1229 I Street,
- Station 5 at 731 Broadway, and
- Station 14 at 3145 Granada Way.

Police protection to State-owned property in downtown Sacramento is provided by the CHP Capitol Protection Section (CPS), located at 1801 9th Street. This specific CHP office is responsible for providing police and safety services to the occupants and visitors to the State Capitol, Capitol Park, and hundreds of State-owned facilities in downtown Sacramento, including the Bateson Building. CPS personnel are on duty all day and every day of the year (CHP 2017, Main, pers. comm., 2018).

It is a stated objective of the project to upgrade the fire and life safety systems in the building to bring them up to code. The renovations would increase tenant safety and would not increase demand for fire or life safety services to the building by SFD or CHP CPS.

The Sacramento City Unified School District (SCUSD) provides educational services to residents of the City of Sacramento. SCUSD serves over 43,000 students in 77 schools. The three schools that serve the project vicinity are William Land Elementary School, Sutter Middle School, and C.K. McClatchy High School.

Recreational facilities in the vicinity of the project include approximately 37 acres of parks serving the Capitol Area, including the approximately 3-acre Roosevelt Park directly across 9th Street; the 26-acre Capitol Park; the approximately 3-acre Fremont Park; and other parks more distant from the project.

As discussed above in "Population, Employment, and Housing," the potential increase in employees would not increase the City population such that there would be an increase in demand for schools and recreational facilities. There would be no offsite staging area used during construction. Materials and equipment would be delivered using

a Just-in-Time (JIT) method wherein materials and equipment are delivered to the site by the supplier just when needed and not before. It may be necessary to restrict or redirect pedestrian, bicycle, and vehicular movements around the site to accommodate material hauling, materials staging, modifications to utility connections, and or exterior building repairs or modifications. However, access to and use of Roosevelt Park, emergency access, and vehicular, pedestrian, and bicycle access to apartments, offices, and other uses in the vicinity of the Bateson Building would be maintained at all times.

The project would result in less-than-significant public service impacts and these issues are not discussed further in this EIR.

4.2.8 Mineral Resources

Historic mineral production in the Sacramento region has included construction aggregate, kaolin clay, common clay, pumice, and gold. However, according to the Mineral Land Classification Map of Sacramento County, the project area is designated as MRZ-1, or areas that indicate no significant mineral deposits are present (California Geological Survey 1999). Renovation of the existing office building would not result in the loss of any known mineral resources and no impact would occur. This issue is not discussed further in this EIR.

4.2.9 Wildfire

The project site and surrounding land uses are not designated as a high fire hazard severity zone and are not located within a state responsibility area (CAL FIRE 2007). Rather, they are in the local responsibility area. Due to the building's location in a highly urbanized setting that is served by the SFD (see Public Services, above), the risk of wildfire is low and this issue not discussed further in this EIR.

4.3 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

This section analyzes and evaluates the potential impacts of the project on known and unknown cultural resources. Cultural resources include districts, sites, buildings, structures, or objects generally older than 50 years and considered to be important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. They include pre-historic resources, historic-era resources, and "tribal cultural resources" (the latter as defined by Assembly Bill (AB) 52, Statutes of 2014, in Public Resources Code [PRC] Section 21074).

Archaeological resources are locations where human activity has measurably altered the earth or left deposits of prehistoric or historic-era physical remains (e.g., stone tools, bottles, former roads, house foundations). Historical (or architectural) resources include standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges, roads, districts), or landscapes. A cultural landscape is defined as a geographic area (including both cultural and natural resources and the wildlife therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. Tribal cultural resources were added as a resource subject to review under CEQA, effective January 1, 2015 under AB 52 and includes site features, places, cultural landscapes, sacred places or objects, which are of cultural value to a tribe.

One comment letter regarding cultural resources was received in response to the Notice of Preparation (see Appendix A). The Native American Heritage Commission (NAHC) requested AB 52 and SB 18 compliance information; SB 18 does not apply to the project because no General Plan amendment (which is the trigger for SB 18 compliance) is required or proposed. AB 52 compliance is described below.

4.3.1 Regulatory Setting

FEDERAL

Section 106 of the National Historic Preservation Act

Federal protection of resources is legislated by (a) the National Historic Preservation Act (NHPA) of 1966 as amended by 16 U.S. Code 470, (b) the Archaeological Resource Protection Act of 1979, and (c) the Advisory Council on Historical Preservation. These laws and organizations maintain processes for determination of the effects on historic properties eligible for listing in the National Register of Historic Places (NRHP).

Section 106 of the NHPA and accompanying regulations (36 Code of Federal Regulations [CFR] Part 800) constitute the main federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed in, or may be eligible for listing in the NRHP. The NRHP is the nation's master inventory of known historic properties. It is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, and cultural significance at the national, state, or local level.

The formal criteria (36 CFR 60.4) for determining NRHP eligibility are as follows:

1. The property is associated with one of the following significance criteria:

   Criterion A: Association with events that have made a significant contribution to the broad patterns of history (events).

   Criterion B: Association with the lives of persons significant in the past (persons).

   Criterion C: Distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction (architecture).

Criterion D: Has yielded, or may be likely to yield, information important to prehistory or history (information potential).

2. The property retains the ability to convey its historical significance by possessing integrity of location, design, setting, materials, workmanship, feeling, and association.

Listing in the NRHP does not entail specific protection or assistance for a property but it does guarantee recognition in planning for federal or federally-assisted projects, eligibility for federal tax benefits, and qualification for federal historic preservation assistance. Additionally, project effects on properties listed in the NRHP must be evaluated under CEQA.

The National Register Bulletin also provides guidance in the evaluation of archaeological site significance. If a heritage property cannot be placed within a particular theme or time period, and thereby lacks "focus," it is considered not eligible for the NRHP.

Secretary of the Interior's Standards

The *Secretary of the Interior's Standards for the Treatment of Historic Properties* (Secretary's Standards) provide guidance for working with historic properties. The Secretary's Standards are used by lead agencies to evaluate proposed rehabilitative work on historic properties. The Secretary's Standards are a useful analytic tool for understanding and describing the potential impacts of proposed changes to historic resources. Projects that comply with the Secretary's Standards benefit from a regulatory presumption that they would not result in a significant impact to a historic resource.

In 1992 the Secretary's Standards were revised so they could be applied to all types of historic resources, including landscapes. They were reduced to four sets of treatments to guide work on historic properties: Preservation, Rehabilitation, Restoration, and Reconstruction. The four distinct treatments are defined as follows:

- **Preservation** focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time.
- **Rehabilitation** acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character.
- **Restoration** depicts a property at a particular period of time in its history, while removing evidence of other periods.
- **Reconstruction** re-creates vanished or non-surviving portions of a property for interpretive purposes.

STATE

California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on "historical resources," "unique archaeological resources," and "tribal cultural resources." Pursuant to PRC Section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Section 21083.2 requires agencies to determine whether projects would have effects on unique archaeological resources.

Historical Resources

"Historical resource" is a term with a defined statutory meaning (PRC, Section 21084.1; determining significant impacts to historical and archaeological resources is described in the State CEQA Guidelines, Sections 15064.5[a] and [b]). Under State CEQA Guidelines Section 15064.5(a), historical resources include the following:

1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (PRC, Section 5024.1).

2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the California Register of Historical Resources (Public Resources Code, Section 5024.1), including the following:

    a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

    b) Is associated with the lives of persons important in our past;

    c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

    d) Has yielded, or may be likely to yield, information important in prehistory or history.

4) The fact that a resource is not listed in or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in a historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Section 5020.1(j) or 5024.1.

Unique Archaeological Resources

CEQA also requires lead agencies to consider whether projects will impact unique archaeological resources. Public Resources Code, Section 21083.2, subdivision (g), states that unique archaeological resource means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Tribal Cultural Resources

CEQA also requires lead agencies to consider whether projects will impact tribal cultural resources. Public Resources Code, Section 21074 states the following:

a) "Tribal cultural resources" are either of the following:

    1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

        A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

        B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

    2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in

subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

California Register of Historical Resources

All properties in California that are listed in or formally determined eligible for listing in the NRHP are eligible for the CRHR. The CRHR is a listing of State of California resources that are significant within the context of California's history. The CRHR is a statewide program of similar scope and with similar criteria for inclusion as those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR.

A historic resource must be significant at the local, state, or national level under one or more of the criteria defined in the California Code of Regulations Title 15, Chapter 11.5, Section 4850 to be included in the CRHR. The CRHR criteria are similar to the NRHP criteria and are tied to CEQA because any resource that meets the criteria below is considered a significant historical resource under CEQA. As noted above, all resources listed in or formally determined eligible for the NRHP are automatically listed in the CRHR.

The CRHR uses four evaluation criteria:

1. Is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2. Is associated with the lives of persons important to local, California, or national history.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values.
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

Similar to the NRHP, a resource must meet one of the above criteria and retain integrity. The CRHR uses the same seven aspects of integrity as the NRHP.

Public Resources Code, Section 5024 and 5024.5

The California State Legislature enacted PRC § 5024 and 5024.5 as part of a larger effort to establish a state program to preserve historical resources. These sections of the code require state agencies to take a number of actions to ensure preservation of state-owned historical resources under their jurisdictions. These actions include evaluating resources for NRHP eligibility and California Historical Landmark eligibility; maintaining an inventory of eligible and listed resources; and managing these historical resources so that that they will retain their historic characteristics. PRC 5024 requires State agencies to evaluate whether a state-owned building is eligible for inclusion in the Master List of State-Owned Historical Resources. PRC 5024.5 requires the State agency to consult with the State Historic Preservation Officer (SHPO) before a State-owned building on the master list is to be altered, transferred, relocated or demolished.

California State Historical Building Code

The purpose of the California State Historical Building Code (CHBC) (as defined in Sections 18950 to 18961 of Division 13, Part 2.7 of the Health and Safety Code), is to provide regulations for the preservation, restoration, rehabilitation, relocation or reconstruction of buildings or properties designated as qualified historical buildings or properties. The CHBC is intended to provide solutions for the preservation of qualified historical buildings or properties, to promote sustainability, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to

provide for the reasonable safety of the occupants or users. The CHBC requires enforcing agencies to accept solutions that are reasonably equivalent to the regular building code when dealing with qualified historical buildings or properties.

The CHBC is applicable to all issues regarding code compliance for qualified historical buildings or properties. The CHBC may be used in conjunction with the regular code to provide solutions to facilitate the preservation of qualified historical buildings or properties. State agencies shall apply the provisions of the CHBC in permitting repairs, alterations and additions necessary for the preservation, restoration, rehabilitation, safety, relocation, reconstruction or continued use of qualified historical buildings or properties.

When a qualified historical building or property is determined to be unsafe as defined in the regular code, the requirements of the CHBC are applicable to the work necessary to correct the unsafe conditions. Work to remediate the buildings or properties need only address the correction of the unsafe conditions, and it shall not be required to bring the entire qualified historical building or property into compliance with regular code. Qualified historical buildings or properties shall not be subject to additional work required by the regular code, regulation or ordinance beyond that required to complete the work undertaken. Certain exceptions for accessibility and for distinct hazards exist by mandate and may require specific action, within the parameters of the CHBC.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The Act requires that upon discovery of human remains, construction or excavation activity cease and the County coroner be notified. If the remains are of a Native American, the coroner must notify NAHC, which notifies and has the authority to designate the most likely descendant (MLD) of the deceased. The Act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

Health and Safety Code, Sections 7052 and 7050.5

Section 7052 of the Health and Safety Code states that the disturbance of Native American cemeteries is a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the NAHC.

Public Resources Code, Section 5097

PRC Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the NAHC. Section 5097.5 of the Code states the following:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Assembly Bill 52

AB 52, signed by the California Governor in September of 2014, establishes a new class of resources under CEQA: "tribal cultural resources." It requires that lead agencies undertaking CEQA review must, upon written request of a California Native American tribe, begin consultation once the lead agency determines that the application for the project is complete, prior to the issuance of a NOP of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration. AB 52 also requires revision to CEQA Appendix G, the environmental checklist. This revision would create a new category for "tribal cultural resources."

LOCAL

The Gregory Bateson Building Renovation Project is located on State-owned property, has been authorized and funded by the State of California through the State Project Infrastructure Fund and bonds, and would be

implemented by DGS. 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 in its evaluation of 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.

City of Sacramento 2035 General Plan

The following goal and policies from the City of Sacramento 2035 General Plan Historic and Cultural Resources Element are relevant to the analysis of effects on cultural resources.

GOAL HCR 2.1: Identification and Preservation of Historic and Cultural Resources. Identify and preserve the city's historic and cultural resources to enrich our sense of place and our understanding of the city's prehistory and history.

- Policy HCR 2.1.1: Identification. The City shall identify historic and cultural resources including individual properties, districts, and sites (e.g., archaeological sites) to ensure adequate protection of these resources.
- Policy HCR 2.1.2: Applicable Laws and Regulations. The City shall ensure compliance with City, State, and Federal historic preservation laws, regulations, and codes to protect and assist in the preservation of historic and archaeological resources, including the use of the California Historical Building Code as applicable. Unless listed in the Sacramento, California, or National registers, the City shall require discretionary projects involving resources 50 years and older to evaluate their eligibility for inclusion on the California or Sacramento registers for compliance with the California Environmental Quality Act.
- Policy HCR 2.1.3: Consultation. The City shall consult with appropriate organizations and individuals (e.g., California Historical Resources Information System (CHRIS) Information Centers, the Native American Heritage Commission (NAHC), the CA Office of Planning and Research (OPR) "Tribal Consultation Guidelines," etc.,) and shall establish a public outreach policy to minimize potential impacts to historic and cultural resources.
- Policy HCR 2.1.5: National, California, and Sacramento Registers. The City shall support efforts to pursue eligibility and listing for qualified resources including historic districts and individual resources under the appropriate National, California, or Sacramento registers.
- Policy HCR 2.1.7: Historic Resource Property Maintenance. The City shall encourage maintenance and upkeep of historic resources to avoid the need for major rehabilitation and to reduce the risks of demolition, loss through fire or neglect, or impacts from natural disasters.
- Policy HCR 2.1.11: Compatibility with Historic Context. The City shall review proposed new development, alterations, and rehabilitation/remodels for compatibility with the surrounding historic context. The City shall pay special attention to the scale, massing, and relationship of proposed new development to surrounding historic resources.
- Policy HCR 2.1.12: Contextual Features. The City shall promote the preservation, rehabilitation, restoration, and/or reconstruction, as appropriate, of contextual features (e.g., structures, landscapes, street lamps, signs) related to historic resources.
- Policy HCR 2.1.15: Demolition. The City shall consider demolition of historic resources as a last resort, to be permitted only if the rehabilitation of the resource is not feasible, demolition is necessary to protect the health, safety, and welfare of its residents, or the public benefits outweigh the loss of the historic resource.
- Policy HCR 2.1.16: Archaeological & Cultural Resources. The City shall develop or ensure compliance with protocols that protect or mitigate impacts to archaeological and cultural resources including prehistoric resources.
- Policy HCR 2.1.17: Preservation Project Review. The City shall review and evaluate proposed development projects to minimize impacts on identified historic and cultural resources, including projects on Landmark parcels and parcels within Historic Districts, based on applicable adopted criteria and standards.
- The following goal and policy from the City of Sacramento 2035 Land Use Element are relevant to the analysis of effects on cultural resources.

GOAL LU 1.1: Growth and Change. Support sustainable growth and change through orderly and well-planned development that provides for the needs of existing and future residents and businesses, ensures the effective and equitable provision of public services, and makes efficient use of land and infrastructure.

- Policy LU 2.4.2: Responsiveness to Context. The City shall require building design that respects and responds to the local context, including use of local materials where feasible, responsiveness to Sacramento's climate, and consideration of cultural and historic context of Sacramento's neighborhoods and centers.

City of Sacramento Landmark Ordinances

Codified in Title 17 of the City Code, the City of Sacramento compiles ordinances adopted by the City Council to add or delete individual landmarks, historic districts, and contributing resources to the Sacramento Register of Historic & Cultural Resources. Resources included in the register are historical resources for the purposes of CEQA.

4.3.2 Environmental Setting

PROJECT SITE

The project site is located in Downtown Sacramento at 1600 9th Street. The project site block contains the Gregory Bateson Building, and is bound on the north by P Street, the east by 9th Street, the south by Q Street, and the west by 8th Street (Figure 3-1).

STUDY AREA

Archaeological Resources Study Area

The primary study area for the archaeological resources evaluation consists of the Gregory Bateson Building Renovation Project site described above. An archival and literature search encompassing a 0.10-mile (one city block) radius around the study area was performed on May 9, 2019 at the North Central Information Center (NCIC) of the California Historical Resources Information System, housed at California State University, Sacramento. The record search included a review of site location base maps and other records on file at the NCIC, listings in the NRHP (National Park Service 1998), California Inventory of Historic Resources (California Department of Parks and Recreation 1976), California Historical Landmarks (California Department of Parks and Recreation 1996), and California Points of Historical Interest (1992 and updates) (California Department of Parks and Recreation 1992). Archival research was conducted using Sanborn Fire Insurance Maps available at the Sacramento Public Library. Additional field reconnaissance of the office building site was conducted July 2, 2019.

Historic Architectural Resources Study Area

The study area for the evaluation of historic architectural resources includes the entire parcel on which the Gregory Bateson Building is located. This single parcel study area was delineated in order to account for direct impacts and accommodate potential indirect impacts (such as vibration). Much of the environmental setting and evaluations pertaining to historic architectural resources within the study area is summarized from the *Final Bateson Building Historic Resources Technical Report* (ICF 2016), which is provided in Appendix B of this Draft EIR.

REGIONAL PREHISTORY

Continuing research and interpretation have led to two fundamentally different approaches to the archaeological record of the Central Valley and Sacramento River/San Joaquin River Delta (Delta); the first is chronological, and the second involves the elucidation of contemporaneous cultural patterns. The discussion below provides a succinct description of both approaches to Central Valley prehistory, beginning with the nascent, salvage-oriented archaeology of the late nineteenth century, followed by the development of cultural historical frameworks for the Central Valley under the aegis of Sacramento Junior College and the University of California. The discussion moves

from this chronologically oriented approach to the functional and systems approaches favored in California archaeology from the 1960s into the present.

In the late 1800s and early 1900s, knowledge of the area's prehistory was derived largely from local collectors. The collections of J. A. Barr and E. J. Dawson, amateur archaeologists working in the Stockton area from 1893 to the early 1930s, provided the groundwork for the later development of a three-phase chronological sequence for central California (Ragir 1972). Professional archaeological research in the lower Sacramento Valley was initiated during the 1920s and 1930s. Lillard and Purves (1936) worked at several mound sites near the Deer Creek/Cosumnes River confluence in Sacramento County. From the relative sequences in stratified occupational and burial sites, Lillard and Purves identified a three-stage chronology based on artifacts, burial orientation, and condition. Simply called the Early, Transitional—later called Middle—and Late horizons, these were defined by shifting patterns in site assemblages and mortuary morphology. Although interpretations varied, explanations for change usually were linked to the movements of people. In 1939, a synthesis of this research was published and later expanded into the Central California Taxonomic System (CCTS) (Lillard et al. 1939). Later refined by Heizer (1949) and Beardsley (1948, 1954a, 1954b), the CCTS was characterized by specific artifact types, mortuary practices, and other cultural features.

Subsequent archaeological research was aimed at refining the CCTS and incorporating the study of paleoenvironmental change, settlement patterns, population movement, subsistence strategies, and development of exchange networks. These studies led to the development of a second approach. As absolute dates became available for sites with Early, Middle, and Late assemblages, it was discovered that sites with different assemblages actually were contemporaneous. This was particularly true with sites from the Early and Middle horizons. This discovery, along with a change in archaeological paradigms in the 1960s to a more economic and functional orientation, led to a reorganization of the CCTS. This new scheme used the same archaeological manifestations to differentiate sites as did the CCTS, but ordered sites into functional groups rather than temporal ones, which led to the establishment of different cultural models for many localities of central California.

This approach was advanced by Fredrickson (1973), who used the term *pattern* to describe an "adaptive mode extending across one or more regions, characterized by particular technological skills and devices, and particular economic modes." Three patterns were introduced: Windmiller, Berkeley, and Augustine. These patterns, while generally corresponding to the Early, Middle, and Late horizons within the Central Valley, were conceptually different and free of spatial and temporal constraints. By changing the paradigm from a cultural/historical orientation to a more processual/adaptive one and introducing the concept of pattern, Fredrickson addressed problems with the chronological and regional sequences that had been nagging archaeologists for several decades (cf. King 1974).

One problem with both approaches is that they have been based on an archaeological record derived primarily from village sites. Although not a significant problem under a chronological framework, this presents a more substantial problem when an economic perspective is taken. Current understanding of the prehistoric valley settlement and subsistence systems is heavily biased toward large habitation sites adjacent to permanent water sources. These sites, by their very nature, can provide only limited information on the total economic system. Much more archaeological work is needed at ephemeral and peripheral sites located away from the larger habitation sites.

The taxonomic framework of the Sacramento Valley is described in the following sections in terms of chronology with archaeological patterns discussed where they apply, following Fredrickson's (1973) system. A *pattern* is a general mode of life characterized archaeologically by technology, particular artifacts, economic systems, trade, burial practices, and other aspects of culture. In Fredrickson's view, periods served as arbitrary intervals that could be used to compare patterns over space and time. Only with the clear identification of pervasive temporal patterns would periods acquire specific archaeological meaning.

Paleo-Indian (13550 to 10550 BP)

At the end of the Pleistocene, circa 13,550–10,550 BP, parts of the Sierra Nevada adjacent to the Central Valley were covered with large glaciers (West et al. 2007:27), and the Central Valley provided a major transportation route for animals and people. This transportation corridor, perhaps rivaled only by maritime coastal travel (Erlandson et al. 2007), was undoubtedly lithic cores and a flake that are associated with Pleistocene gravels. These archaeological remains were grouped into what is called the Farmington Complex, which is characterized by core tools and large,

reworked percussion flakes (Treganza and Heizer 1953:28). Farther north, at Rancho Murieta, lithic artifacts spanning the reduction sequence, as well as unworked raw material, were recovered from gravel deposits attributed to the late Pleistocene (Peak 1981). Recent geoarchaeological investigations at CA-STA-69 (in the vicinity of Farmington Complex–type site CA-STA-44), however, indicate that the Farmington Complex assemblage at the site is contained completely within Holocene alluvial terrace deposits, not Pleistocene glacial outwash deposits. These findings raise the question of whether reinvestigation of other Farmington Complex assemblages will reveal a Holocene assemblage (Rosenthal and Meyer 2004:96; Rosenthal et al. 2007:151).

Lower Archaic (10550 to 7550 BP)

Using a wider range of smaller resources meant people needed access to larger areas of land to hunt and collect the food and other resources they required. Small groups of people probably moved through the valley, foothills, and Sierra Nevada to take advantage of seasonally available resources and resources limited to particular ecozones. This mobile foraging strategy was essential to their survival.

Reliance on a diverse number of smaller plants and animals had several consequences. First, people had to move around from one area to another to take advantage of the seasonal availability of particular resources. Second, large areas of land were needed to ensure that enough resources were available during all times of the year. Third, more specialized tools were necessary to procure and process the wider range of plants and animals that were being used. This generalized subsistence strategy worked well for the inhabitants of the Central Valley for many millennia.

During the Lower Archaic Period, beginning approximately 10550 BP, a shift to a more specialized subsistence strategy began, focusing on ways of increasing the amount of food that could be produced from smaller portions of land. This change can be at least partially explained by the increasing numbers of people living in the Central Valley, which is indicated by a much more abundant archaeological record and by dietary stress, as indicated by dental pathologies (Moratto 1984:203–204). As the population slowly increased, it became more difficult for people to obtain seasonally available resources across large areas of land.

Middle Archaic (7550 to 2550 BP)

The beginnings of the intensification emerging in the Lower Archaic are seen manifested even more so in the Middle Archaic Windmiller Pattern (4500–2800 BP), based on the assemblage at the Windmiller site (CA-SAC-107). The Windmiller Pattern shows evidence of a mixed economy of game procurement and use of wild plant foods. Artifacts and faunal remains at Windmiller sites include seeds, a variety of small game, and fish. The archaeological record contains numerous projectile points and a wide range of faunal remains. Hunting was not limited to terrestrial animals, as evidenced by fishing hooks and spears that have been found in association with the remains of sturgeon (*Acipenser* sp.), salmon (*Oncorhynchus* sp.), and other fish. Plants also were used, as indicated by groundstone artifacts and clay balls that were used for boiling acorn mush. The bone tool industry appears minimal but includes awls, needles, and flakers. Other characteristic artifacts include charmstones, quartz crystals, bone awls and needles, and abalone (*Haliotis* sp.) and olive snail (*Olivella* sp.) shell beads and ornaments. Trade is reflected in the material from which utilitarian, ornamental, and ceremonial objects were produced.

Windmiller Pattern origins are believed to be linked to the arrival of Utian peoples (ancestors to the Maidu) from outside California who were adapted to riverine and wetland environments (Moratto 1984). Windmiller sites are concentrated on low rises or knolls within the floodplains of major creeks or rivers. Such locations provided protection from seasonal flooding and proximity to riverine, marsh, and valley grassland biotic communities. People with a Windmiller adaptation buried their dead in formal cemeteries, both within and separate from villages, suggesting a degree of sedentism. Burials appear in a ritual context that included the use of red ochre, often rich grave offerings, and ventral extension with a predominantly western orientation, although other burial positions, such as dorsal extension and flexed, and cremations are also known (Moratto 1984).

Settlement strategies during the Windmiller period reflect seasonal adaptations; habitation sites in the valley were occupied during winter, but populations moved into the foothills during summer (Moratto 1984). The earliest evidence of widespread occupation of the lower Sacramento Valley/Delta region comes from several sites assigned to the Windmiller Pattern (previously, Early Horizon), dated circa 4500–2800 BP (Ragir 1972). A variety of valley

settings were used by people exhibiting these adaptations (Beardsley 1948; Gerow 1974; Heizer 1949; Heizer and Fenenga 1939; Lillard et al. 1939; Ragir 1972; Schulz 1970).

During the Middle Archaic, Central Valley population increased, and inhabitants responded in two ways. First, they used the marshlands of the Delta, which were much more extensive and rich in food resources than they are today. Second, they increased the use of the acorn as a food source. The acorn had been used before this time, but it became a much more predominant resource with specialized procurement and processing technologies. People following these strategies were more sedentary than they had been in the past, and village sites are found throughout the valley along rivers and near other areas with permanent sources of water. An economic shift from a foraging to a collecting strategy probably occurred during the Middle Archaic.

The result of the settlement and subsistence reorientation was a coeval, adaptive pattern with the Windmiller Pattern labeled the Berkeley Pattern (3500–2500 BP) (Fredrickson 1973). Windmiller Pattern sites seem to occur with more frequency in or near the Delta, while Berkeley Pattern sites tend to be more prevalent farther north. Berkeley Pattern sites are more numerous and more widely distributed than Windmiller sites; they are characterized by deep midden deposits, suggesting intensified occupation and a broadened subsistence base. The Berkeley Pattern also has a greater emphasis on the exploitation of the acorn as a staple. A reduction in the number of handstones and millingstones and an increase in the number of mortars and pestles reflect this greater dependence on acorns. Although gathered resources gained importance during this period, the continued presence of projectile points and atlatls (spear-throwers) in the archaeological record indicates that hunting was still an important activity (Fredrickson 1973). Fishing technology improved and diversified, suggesting greater reliance on riverine and estuarine resources. This pattern is also noted for its especially well-developed bone industry and such technological innovations as ribbon flaking of chipped stone artifacts.

Artifacts and practices shared by Berkeley Pattern and Windmiller Pattern material culture include mortars and millingstones, quartz crystals, charmstones, projectile points, shell beads and ornaments, and bone tools. New elements include steatite beads, tubes and ear ornaments, slate pendants, and burial of the dead in flexed positions with variable orientation or cremations accompanied by fewer grave goods. This period saw near-exclusive use of flexed burials for interment of the deceased (Moratto 1984 [2004]; Rosenthal et al. 2007:155). The use of grave goods generally declined (Moratto 1984 [2004]), and trade continued to be important (Beardsley 1948; Fredrickson 1973; Heizer and Fenenga 1939; Lillard et al. 1939; Moratto 1984).

A restricted land base, coupled with a more specialized resource base, meant that people had to develop economic relationships with other groups of people with different specialized resources living in other areas. Although resources and commodities were being exchanged throughout the region before this period, more extensive and more frequently used economic networks developed during this time. Transported resources likely included foods—trans-Sierra acorn movement is known from later periods (d'Azevedo 1986)—and commodities more visible in the archaeological record, such as shell and lithic materials (Rosenthal et al. 2007:155).

Upper Archaic (2550 to AD 1100) and Emergent (AD 1100 to Historic)

The Middle Archaic-Upper Archaic transition, the beginning of the Upper Archaic Period, corresponds with a dramatic climatic shift to cooler, wetter conditions. These conditions resulted in filling of inland lakes and greater freshwater flow through the Sacramento River Delta. Overall, the Upper Archaic is characterized by a proliferation and increased distinction of artifact types, burial positions, and specialized technologies, such as widespread manufacture of ceremonial blades, obsidian biface blanks, *Olivella* and *Haliotis* beads and ornaments, and groundstone netsinkers (Rosenthal et al. 2007).

Dominant food resources in the Central Valley during the Upper Archaic consisted of acorns, salmon, shellfish, rabbit, and deer. In general, settlements became increasingly larger and of a more sedentary nature. A generalized subsistence pattern with a high degree of technological specialization, termed the Augustine Pattern (1200 BP to Historic Period), is first evident during the Lower Archaic (Fredrickson 1973). Development of the Augustine Pattern was apparently stimulated by the southward expansion of Wintuan populations into the Sacramento Valley (Moratto 1984). The Augustine Pattern reflects a change in subsistence and land use patterns to those of the ethnographically known people of the historic era. This pattern exhibits a great elaboration of ceremonial and social organization,

including the development of social stratification. Exchange became well developed, and an even more intensive emphasis was placed on the use of the acorn, as evidenced by the presence of shaped mortars and pestles and numerous hopper mortars in the archaeological record.

Other notable elements of the artifact assemblage associated with the Augustine Pattern include flanged tubular smoking pipes, harpoons, clam shell disc beads, bone awls for basketry, bone whistles, stone pipes, and an especially elaborate baked clay industry that includes figurines and pottery vessels known as Cosumnes Brownware. The presence of small projectile point types, referred to as the Gunther Barbed series, indicates the use of bow and arrow. Other traits associated with the Augustine Pattern include the introduction of preinterment burning of offerings in a grave pit during a mortuary ritual, increased village sedentism, maintenance of extensive exchange networks, population growth, and an incipient monetary economy in which beads were used as a standard of exchange (Moratto 1984). Burials were flexed with variable orientation and generally lacked grave goods (Beardsley 1948; Fredrickson 1973; Moratto 1984; Ragir 1972).

The trends toward specialization, exchange, and spatial circumscription that characterized prior periods continued in the Emergent Period. Population continued to increase, and group territories continued to become smaller and more defined. Patterns in the activities, social relationships, belief systems, and material culture continued to develop during this period and took forms similar to those described by the first Europeans that entered the area.

The project site is in the southern end of California's Sacramento Valley, in downtown Sacramento. The City of Sacramento was developed near the confluence of the American and Sacramento rivers in a low-lying region prone to winter flooding. Historic maps and other materials identify the area as being near the edge of a marsh, thus indicating slightly higher ground. High ground near marshes or other freshwater environments was ideal for resource extraction by Native Americans. For this reason, coupled with the generally benign weather in the region, the general project area has a moderate to high likelihood of containing subsurface prehistoric resources (Hamilton et al. 2005).

Archaeological Setting

The earliest presence of humans in California dates to the Paleo-Indian Period (10,000–6000 before the current era [BCE]) of the Late Pleistocene. People lived in small and highly mobile bands, hunting and gathering along ancient pluvial lakeshores and coastlines. Such behavior has been evidenced by fluted projectile points and chipped stone crescent forms (Fredrickson 1973; Moratto 1984).

Few archaeological sites have been found in the Sacramento Valley that date to the Paleo-Indian or the subsequent Lower Archaic (6000–3000 BCE) time periods. This may be due to high sedimentation rates at the confluence of the Sacramento and American rivers, leaving the earliest sites deeply buried and inaccessible. Archaeologists have recovered a great deal of data from sites occupied by the Middle Archaic Period (3000–1000 BCE).

In the Sacramento region, the Windmiller Pattern dates to the Middle Archaic Period. The Windmiller Pattern is recognized by an increased emphasis on acorns, a continuation of hunting and fishing activities, as well as more intensive procurement practices. Ground and polished charmstones, twined basketry, baked-clay artifacts, and worked shell and bone are hallmarks of Windmiller culture. Widely ranging trade patterns brought goods in from the Coast Ranges and trans-Sierran sources, as well as closer trading partners. Distinctive burial practices (ventrally extended, oriented westward) identified with the Windmiller Pattern also appeared in the Sierra Nevada foothills, indicating possible seasonal migration into the Sierra Nevada (Stevens et al 2009).

Sociopolitical complexity continues through the Upper Archaic Period (1000 BCE–500 into the current era [CE]). Formalized and regular sustained trade between groups are demonstrated for the first time. Assemblages dating to this period in the lower Sacramento Valley are consistent with the Berkeley Pattern. Distinguished by distinctive stone and shell artifacts and a reliance on acorns as a food source. Flex burials accompanied with red ocher predominated. Minimally shaped mortar and pestle technology was much more prevalent than the mano/metate, and nonstemmed projectile points became more common. Berkeley traits may have developed in the San Francisco Bay area and were spread through the migration of Plains Miwok Indians (Bennyhoff and Fredrickson 1969).

Significant technological and social developments characterized the Emergent Period (CE 500–1800). The introduction of the bow and arrow ultimately replaced the dart and atlatl. Distinctions in an individual's social status could be linked to acquired wealth. Later in this period (CE 1500–1800), highly regularized and sophisticated exchange relations utilized the clamshell disk bead as a monetary unit. Various aspects of material goods production and exchange as well as inter and intra-group rituals were regulated by specialists. Territorial boundaries between ethno-linguistic groups encountered at the time of European contact became well established (Hamilton et al. 2005).

The Emergent Period in the lower Sacramento Valley is represented by the Augustine Pattern (Bennyhoff and Fredrickson 1969), a widespread central California pattern assigned to the Late Horizon. Cultural evolution may have been stimulated by the southern migration of Wintuan people from north of the Sacramento Valley. Food procurement strategies, as well as trade activities intensify along with fishing, hunting, and gathering. Complex exchange systems, and a wider variety in mortuary practices including cremation for some high-status individuals are hallmarks of this pattern.

Initial work in the Sacramento region, from the 1950s and earlier, generally indicates that the northern portion of the Sacramento Valley was culturally more closely affiliated with the Shasta/Oroville area. The associations between the cultures of the southern Sacramento Valley, northern San Joaquin Valley and the Sacramento-San Joaquin Delta became apparent during the 1950s and 1960s.

While the problem of alluvial deposition covering older sites has been discussed in relation to Sacramento Valley archaeology (Moratto 1984), numerous sites in the Sacramento region have been identified and excavated, guiding archaeologists toward a more refined interpretation of local cultural patterns. Most recently, excavations in downtown Sacramento in 2004 and 2005 (the City Hall Site at Ninth and I streets, another on H Street) recovered artifacts more than 15 feet below street level at the Ninth Street site, but have also demonstrated that prehistoric sites (including human remains) can be found just a few feet below the current street grade (Farris and Tremaine 2008).

Ethnographic Setting

The area east of the Sacramento River between modern Sacramento and Marysville was inhabited by the eastern Valley Nisenan. In the Sacramento Valley, the tribelet, consisting of a primary and a few satellite villages, served as the basic political unit (Moratto 1984). Permanent settlements were often populated by over one hundred people, living in earthen, tule, grass, or bark structures, concentrated on raised ground near water. Valley Nisenan territory was divided into three tribelet areas, each populated with several large villages (Kroeber 1925). Momol and Sama are two such villages, recorded historically in the vicinity of the project site.

Valley Nisenan people gathered a wide variety of food resources year round, but hunting and gathering activities were at their most intense in late summer and early fall. Food staples included acorns, buckeyes, pine nuts, hazelnuts, various roots, seeds, mushrooms, greens, berries, and herbs. Preferred game included mule deer, elk, antelope, black bear, beaver, squirrels, rabbits, and other small animals and insects. Salmon, whitefish, sturgeon, and suckers, as well as freshwater shellfish, were also caught for food (Kroeber 1925). Descendants of these indigenous people are contemporarily organized as the Federally-recognized Wilton Rancheria, United Auburn Indian Community of the Auburn Rancheria, and the Shingle Springs Rancheria.

REGIONAL HISTORY

European and American Settlement

California was visited by every major European naval power, but was claimed by the Spanish Empire ca. 1602. The first California mission was established in 1769, in San Diego. Over the next 50 years, the Spanish government with the aid of various Roman Catholic orders established 21 missions throughout "Alta California." Lieutenant Gabriel Moraga and 13 soldiers traveled to the Sacramento Valley from Mission San Jose in 1808, but reported that the area would not be suitable for a mission site. However, a member of the expedition, enamored with the trees and the rivers, compared the region's beauty to the Catholic Eucharist, or sagrado sacramento.

Mexico's independence from Spain in 1822 resulted in the secularization of the missions, in part to limit influence of Roman Catholics loyal to Spain. Foreign fur trappers, primarily Canadian and American, gained a regional foothold. In 1826, Jedediah Smith camped near the present site of California State University, Sacramento, on assignment for the Hudson Bay Company. His success spurred an influx of trappers. They depleted the area until the early 1840s, when hunting and trapping were no longer profitable. The rapid influx of European and American trappers caused epidemics of malaria and smallpox that killed thousands of the Patwin and Nisenan people along the Sacramento River. Depopulation of the indigenous people from the project area through disease, relocation, and murder continued during Mexican secularization of Alta California (Lindsay 2012).

The vast northern territory of Alta California lacked the military capacity to protect Mexico's lucrative interests in the trans-Pacific economy. The Mexican government continued the practice started by Imperial Spain of awarding large land grants to foreign citizens, nominally loyal to Mexico, as a bulwark against competitors in the frontier. John Sutter, born a citizen of Switzerland, was awarded such a land grant by President Juan Bautista Alvarado of Mexico in 1834. His party disembarked at the site of present-day Sutter's Landing Park on 28th Street August 12, 1839. Sutter had constructed an adobe fort, a settlement he called New Helvetia, by 1841 (now Sutter's Fort State Park on L and 27th Streets). He immediately disavowed his loyalty to the Mexicans at the initiation of the Mexican-American War in 1846 and raised the Stars and Stripes over New Helvetia.

California was ceded as a territory to the United States following the end of the Mexican-American War in 1848. During that time, the steadily growing population of New Helvetia expanded into the surrounding countryside. The lumber mill built by one of Sutter's employees, James Marshall, was originally planned to support Sutter's conceptual city, Sutterville. The Coloma mill yielded gold, instead. Unable to keep news of the gold secret, word reached San Francisco and the rest of the world.

The fort of New Helvetia was steadily abandoned. Sutter's men and associates were lured away by prospecting. Creditors, assuming Sutter had claim to the gold at Coloma (he did not), forced the Swiss émigré to transfer his holdings to his son, John. John, seeking to pay off his father's debts, designated four-square miles of the original Mexican land grant as the site for the new town, Sacramento. He sold lots within the new town between $200 and $500 (Hamilton et al. 2005).

The same lots sold for 10 times their original price, and stores, saloons, and gambling houses sprang up to empty the newly filled pockets of the miners arriving at the embarcadero on Front Street. As the commercial center of Sacramento began to favor the riverfront, more and more canvas and semi-permanent structures opportunistically arose. When California was admitted to the Union in 1850 the populace of Sacramento, nearly 12,000 people, had already experienced a disastrous flood. Subsequent floods and fires would shape civil policy and urban planning for the next several decades.

History of the Capitol Area

While industries supporting the Gold Rush and the growing population of Sacramento boomed, the city itself suffered multiple catastrophes. A fire in 1852, and the floods in 1853, 1854, 1861-1862, and 1878 motivated wealthy members of the city to construct levees, bulwarks, and raised streets to protect people, homes, and businesses (Downey 2010). Between 1862 and 1878 the area bound by the east bank of the Sacramento River, 12th, H and L Streets was systematically raised using convict labor, press gangs, and private contractors. Bulwarks were constructed with locally-fired bricks and the first stories of many downtown buildings became subterranean.

In 1860, four blocks bounded by 10th and 12th Streets and L and N Streets were donated by the City as a site for a new State Capitol. By 1869, enough of the Capitol had been built to allow legislative sessions to convene within its walls, but construction was not completed until 1874. Following construction, the area surrounding the Capitol became a popular residential neighborhood with fashionable houses (Hamilton et al. 2005).

Despite the presence of many recognizably modern city features like paved asphalt streets and cement sidewalks, urban sanitation was a blight on the beautiful Capitol neighborhood. Privies in ca. 1880 Sacramento were little more than holes dug in the backyard. Even upper-class homes might be served by little more than a private cess-pool. Residential privies served the needs of approximately 5,500 homes in 1902 (Hamilton et al. 2005).

In 1900, Sacramento had a population of 30,000, covering an area of about 4 square miles. The city streets averaged 80 feet wide and had electric lights. Water mains were established on an east-west orientation. By 1910 the population had doubled to 45,000. By 1914, Sacramentans were enthusiastic motorists, with use nearly doubling to 6,500 vehicles in two years. New developments attracted middle-class and upper-class families away from the city core. The homes in the older parts of town were soon divided into rentals, demolished for new construction, or simply left to deteriorate. In the 1960s, the State began acquiring land in downtown Sacramento for future expansion and development.

In the 1930s, the California Department of Food and Agriculture (formerly DMV), Transportation (formerly Public Works), and Legislative (formerly Business and Professions, or vocational) buildings were constructed adjacent to the Capitol, just south across N Street. Following this initial construction pattern, in 1940, the State Planning Board and Division of Architecture recommended State office buildings be constructed around Capitol Park instead of to the west along M Street/Capitol Avenue. All State buildings and additions were thence constructed immediately around the Capitol and Capitol Park until the 1950s, and included the State Printing Office. The government continued to grow, however, and subsequent development was no longer restricted to the vicinity around the Capitol (City of Sacramento 2015: Appendix B).

By 1960, the State occupied 23 publicly owned buildings (including annexes), and 19 leased buildings (including offices, special purpose buildings, and warehouses). The State owned nearly 70 acres in downtown Sacramento that included Capitol Park (40 acres), garages, parking lots, warehouses, and the Governor's Mansion on H Street between 15th and 16th Streets (built in 1877 and now a State Historic Park). (City of Sacramento 2015: Appendix B).

HISTORIC SETTING

Downtown Sacramento

The City of Sacramento, located at the confluence of what are now the Sacramento and American Rivers, began its journey to becoming a state capital in the early nineteenth century. It was first established in 1848 by John J. Sutter, who had laid out a town plan. After the discovery of gold in the Sierra Nevada Mountains that same year, the small settlement soon became a busy port exchanging goods and passengers between the goldfields in the mountains to the east and the ocean to the west. The emerging town experienced rapid growth, fueled by the boggling riches generated by the region's gold boom (JRP Historical Consulting, LLC 2013). This development led to the establishment of a modern city in the late nineteenth and early twentieth centuries, replete with thriving commercial and residential areas. The California State Legislature designated Sacramento as the state capital in 1854.

West End Neighborhood

Sacramento's West End neighborhood is among its oldest, laid out as part of the grid established by John J. Sutter in 1848. It extends from the Sacramento River on the west, the State Capitol building at 10th Street on the east, the Southern Pacific Railroad yard on the north, and Y Street (now Broadway) on the south. In the late nineteenth century, the West End was Sacramento's commercial center and featured some of its most coveted residential addresses. Prominent individuals, such as Leland Stanford, Collis P. Huntington, Mark Hopkins, and Charles Crocker, all had associations with this vicinity (Sacramento Bee 2013). By the 1950s, however, the West End neighborhood had become overcrowded and was considered a blighted part of the city. The neighborhood contained a mixture of residential and commercial uses. The block upon which Bateson Building now stands was fully developed with primarily residential structures, including single-family houses, 2-flats, and 4-flats. Within a few blocks, commercial properties included warehouses for the Goodwill Industries and the Shasta Water Company, in addition to many other residences and office buildings (Sanborn Map Company 1952:56). During the late 1950s and early 1960s a large area of the West End neighborhood was razed and redeveloped, although a two-block-wide sliver adjoining the waterfront survives today as Old Sacramento.

Urban Renewal and the West End

In common with countless American cities, the decline of Sacramento's downtown neighborhoods began during the Great Depression and was subject to postwar redevelopment policies that favored urban renewal. After World War II,

federal funding and loans encouraged families to relocate and build new housing in the emerging suburbs in the green fields outside the city center. Lack of investment, declining property values, and an ebbing tax base all conspired to accelerate the decline of these neighborhoods, including the West End (JRP Historical Consulting, LLC 2013).

Corresponding to these trends, Sacramento responded to this decline by developing a series of plans designed to renew its urban core. The West End neighborhood was the first post–World War II urban redevelopment project in California. It was one of several federally funded redevelopment plans undertaken by the city in the postwar period and throughout the late twentieth century. In 1950, the Sacramento City Council identified "Urban Redevelopment Area No. 1," which encompasses most of the West End neighborhood. The plan that accompanied it called for demolition of structures that had been identified as sub-standard and included construction of housing. Opposed by some in the business community, this initial plan was eventually replaced by three separate plans for individual geographies that covered the entire area. These geographies were the "Capitol Mall Project Area No. 2A," the "Capitol Mall Extension Project Area," and the "Capitol Mall Riverfront Project Area." Implementation of these plans began in 1954 and continued in phases throughout the remainder of the 1950s and into the 1960s.

Capitol Area Plan

In 1960, the State prepared a California State Capitol Plan to support the growth of State government and to guide development of needed office space in an orderly fashion. This plan focused on the area south of L Street, near the Capitol, and recommended the demolition of the existing buildings and the construction of a new high-rise complex in a park-like setting. Most of the buildings in the area were demolished, and the Resources Building, and the Central Heating and Cooling Plant were constructed as part of the plan. The entire Capitol Area Plan, however, was not built out. By 1975, the State was accommodating office workers in leased space, a costly option. Tasked by the California Legislature with updating the plan in 1976, the DGS engaged a Capitol Plan Advisory Committee, including departmental professional staff and consultants. The primary goal of the Capitol Area Plan was to consolidate State office functions and workers within buildings owned by the State. Construction of the Gregory Bateson Building was first introduced as part of the Capitol Area Plan in 1977.

1970s Environmentalism in California under Governor Jerry Brown

The year 1973 was a watershed in the realm of environmentalism in the United States. Governor Brown and Van der Ryn convinced the California Legislature to fund an ambitious program of new, energy efficient, state office buildings, despite a skepticism of innovation in the 1970s. The Bateson Building was the program's flagship project. Energy efficiency was not yet a mainstream concern, however, and would not become so for several decades. As a result, the program remained a prescient outlier insofar as energy efficiency was concerned (Knight 2008). Elected in 1974, Governor Brown expressed his strong interest in environmental issues with a series of appointments and actions throughout his first term Under Brown's tenure, California developed the first set of state-wide energy efficiency standards in the United States (Louw 2013).

Expressions of Governor Brown's environmental commitment also included his appointment of Van der Ryn as State Architect, overseeing a staff of over 50 (Van der Ryn 2005:60). For capital improvements, Van der Ryn recommended that the State Architect prioritize "design [of] new buildings that serve as models of the principles of appropriate technology – particularly the prudent use of energy and resources and adaptation to particular environments. Focus on the design of particular projects that can set new standards for public design through careful consideration for people, resources, and environment" (Van der Ryn 1975:10). The Bateson Building is the very embodiment of this recommendation.

Included in the Capitol Area Plan, the Bateson Building (referred to as Site 1A while under development) was one of a group of buildings planned to relieve State reliance on leased office space and incorporate energy efficient elements. The Bateson Building was the first California government building to fully incorporate a set of integrated, cutting-edge energy conservation features, or appropriate technologies. Named for noted University of California, Santa Cruz anthropologist Gregory Bateson (1904–1980), the Bateson Building's design incorporated appropriate technologies, primarily in the form of energy-efficiency measures and responsiveness to occupant needs. In this way, it reflected the environmental priorities of the Brown administration during the 1970s.

Gregory Bateson Building

Opened in May 1981, the Gregory Bateson Building (also known as the Bateson State Building) is the pre-eminent architectural expression of 1970s era environmentalism in California under the administration of Governor Edmund G. "Jerry" Brown. Designed as an energy efficiency demonstration piece by State Architect Sim Van der Ryn, it is an exceptionally significant example of energy efficient, environmentally sensitive architecture applied to a state government office building.

Environmental Features of the Bateson Building

The Bateson Building was conceived as a demonstration piece for an interconnected set of appropriate technologies, or features that conserve energy and foster human thriving. The designers' goal was to use technology to reduce the building's energy usage by 75 percent compared to other governmental buildings of comparable size, approximately 250,000 square feet. Yet the designers' goals were not exclusively focused on energy conservation. The architects additionally strove to provide a more comfortable environment for the building's occupants, visitors, and neighbors.

The Bateson Building's environmental features (energy efficiency and occupant comfort measures) can be organized into four categories: (1) Sunshading, (2) Daylighting, (3) Rock Bed and Thermal Mass, and (4) Energy Control Systems (Woodbridge 1984:89, 91).

Late Modernism

Exceptionally significant as an example of environmental architecture, the Bateson Building is designed in the Late Modern style. The Bateson Building is one of the first large-scale examples of sustainable or "green" architecture designed in this style, years before either the term or the form came into common vernacular usage. Stylistically and philosophically a reaction to more orthodox Modernist philosophies, most commonly associated with the work of Mies van der Rohe and his adherents, the Bateson Building is an excellent expression of Late Modernism that offers a highly accessible, humanly scaled environment for people to work in. Stylistically Late Modern, the Bateson Building pointed the way to an evolution of the style through its boldly assertive environmental emphasis.

Summation

The Gregory Bateson Building reflects Governor Jerry Brown's environmental ambitions and is an exceptional expression of 1970s Environmentalism in California under his governorship. It is among the earliest large-scale buildings to incorporate an integrated suite of energy efficiency features with a conscious focus on occupant needs and comfort. Completed by a design team led by State Architect Sim Van der Ryn it is a strong example of the architect's work in the Late Modern style. The Gregory Bateson Building is the first and most fully realized state office building in California to demonstrate environmentally conscious architecture.

RECORDS SEARCHES, SURVEYS, AND CONSULTATION

The identification of CEQA cultural resources within the project study area included a review of existing sources of information regarding previously identified cultural resources and consultation with interested parties. The outcome of this review and consultation is described below.

Archaeological Resources

North Central Information Center

Cultural-Resources Studies in or Near the Project Site

A review of previous surveys and recordation efforts in the vicinity as well as field investigations of the proposed project site was performed. An archival and literature search was completed May 9th, 2019 at the North Central Information Center (NCIC) of the California Historical Resources Information System (CHRIS) (Table 4.3-1), housed at California State University, Sacramento. The record search covered a one tenth of a mile radius around the project site and included a review of site location base maps and other records on file at the NCIC, listings in the NRHP (National Park Service 1998), California Inventory of Historic Resources (California Department of Parks and

Recreation 1976), California Historical Landmarks (California Department of Parks and Recreation 1996), and California Points of Historical Interest (1992 and updates) (California Department of Parks and Recreation 1992). Eleven archaeological and historic studies have been conducted within one tenth of a mile of the project site.

Table 4.3-1 Results of NCIC Records Search, Studies Performed within one tenth of a mile of Project Site

Report	Year	Author	Title
002006	1998	Derr, Eleanor	Pacific Bell Mobile Services: 800 Q Street
003349	1997	Peak and Associates, Inc	Determination of Eligibility and Effect for the Remaining Brick Sewer Mains
003389	1981	Paula Boghosian	Non-Residential Building Survey Project Report
004439	2002	Nettles, Warren, and Hamilton	Archaeological Research Design for Identification, Evaluation and Recovery at the CALPERS Headquarters Expansion Project
009066	1976	Charles Hall Page	Sacramento Old City Residential Building Survey
009993	1996	Rick Batha	Study of Remaining Brick Sewer Mains
009999	2008	Carolyn Losee	Cultural Resources Analysis for AT&T Mobility CN1368A, 800 Q Street
011404	2012	PAR Environmental Services	Report of Cultural Resources Monitoring R Street Improvements 10th-13th Streets, Sacramento, California
011509	2014	Jeremy Adams and Stephen Pappas	Architectural History Evaluation of the State of California Resources Building at 1416 9th Street, Sacramento
011675	2014	Christopher McMorris and Chandra Miller	Historical Resource Inventory and Evaluation Report: Capitol Towers Apartments 1500 7th Street Sacramento, California 95814
012066	2014	Jennifer L. Davis	Q and 8th Ensite #21136

Known Archaeological Resources in or Near the Project Site

Two archaeological resources are known to exist within the one tenth of a mile record search area. One, an extensive historic-era refuse scatter excavated in the 1970's, is across 9th Street to the northeast from the project site. A second resource, likely a prehistoric habitation site, is located to the east of the project site in Roosevelt Park. The original site record for this resource is quite old and is lacking important descriptive information. A 1978 report by Robert Orlins indicates that he was unable to relocate this site at the time of his survey. There are likely many more prehistoric sites in the downtown Sacramento area that have not yet been uncovered. Construction in 2008 near the historic Folsom Power Station in downtown Sacramento (between G, 6th, H, and 7th Streets) revealed multiple Native American burials and possible cremations (Farris and Tremaine 2008).

Tribal Cultural Resources

Native American Consultation

During project planning, a Native American contact program was initiated pursuant to California Assembly Bill 52. A Tribal Consultation List was requested from the NAHC and received on March 25, 2019. Letters were sent on April 4, 2019, to tribal representatives inviting consultation pursuant to AB 52. The United Auburn Indian Community of the Auburn Rancheria responded by email (received May 1, 2019) indicating that the project area is within the tribal territory of their ancestors and requested consultation pursuant to AB 52. A consultation meeting with Tribal representatives was conducted on July 2, 2019. AB 52 consultation is still underway at the time of publication of this Draft EIR.

No other Tribes have formally requested consultation or additional information related to the Gregory Bateson Building Renovation Project.

Built Environment Resource Consultation

On May 24, 2019 letters requesting information regarding potential historical resources in the project area were sent to the following Interested Parties:

California Council for the Promotion of History
CSU Sacramento, Department of History
6000 J Street Sacramento, CA 95819-6059

California State Archives
1020 O Street
Sacramento, CA 95814

Carson Anderson
City of Sacramento Historic Preservation Director
300 Richards Blvd.
Sacramento, CA 9581

California State Capitol Museum
California State Capitol
1315 10th Street
Sacramento, CA 95814

Dylan McDonald
Center for Sacramento History
551 Sequoia Pacific Blvd
Sacramento, CA 95811-0229

Dori Moorehead, Executive Director
California Museum
1020 O Street
Sacramento, CA 95814

John Marshack, Chair, City of Sacramento
Preservation Commission
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811

Marcia Eymann, Executive Director
Sacramento History Museum
101 I Street
Sacramento, CA 95814

Sacramento Room
Sacramento Public Library
828 I Street
Sacramento, CA 95814

Preservation Sacramento
P.O. Box 162140
Sacramento, CA 95816

Sacramento Historical Society
P.O. Box 160065
Sacramento, CA 95816-0065

Historic State Capitol Commission
Koren R. Benoit, Executive Director
1020 N Street, Room 255
Sacramento, CA 95814

The California State Archives responded via telephone on June 18 and 19, 2019 with the offer of research information, and this information was incorporated into the report. As of July 1, 2019, no other responses have been received.

Historical Resources

Previous Historic Resources Evaluations

The following sources of information were reviewed to identify previously evaluated historical resources in the study area.

- National Register of Historic Places,
- California Register of Historical Resources,
- California Inventory of Historic Resources,
- California Historical Landmarks (State of California 1996) et seq.,
- California State Historic Resources Inventory (HRI),
- 1997 Capital Area Plan Final EIR,
- Context Statement from the City of Sacramento,
- Sacramento Register of Historic & Cultural Resources, and
- Archival collections at the Center for Sacramento History.

Historic Resources Inventory Results

No resources in the study area appear in the California Historical Resources Inventory Database (HRI).

Sacramento Register of Historic and Cultural Resources

Most recently updated in August 2015, the Sacramento Register of Historic & Cultural Resources lists all resources that have been designated by the City of Sacramento. Because each of these resources has been so designated by Sacramento's City Council via city ordinance, these resources are considered historical resources for the purposes of CEQA No resources in the study area appear in the Sacramento Register of Historic and Cultural Resources.

Public Resources Code Section 5024

Under PRC Section 5024, DGS is required to determine which of the properties under its jurisdiction should be added to the Master List of State-Owned Historical Resources (Master List), and to periodically update those determinations. The Master List includes those buildings and properties under the jurisdiction of the State of California that are listed in or eligible for listing in the NRHP or as California Historical Landmarks. This technical report specifically evaluates the Bateson Building, which is owned by the State of California, to determine whether it should be added to the Master List.

In June 2016, DGS concluded that the Gregory Bateson Building is eligible for listing in the NRHP and CRHR at the state level of significance under Criterion A/1 within the important historic context of 1970s Environmentalism in California under Governor Edmund G. "Jerry" Brown and under Criterion C/3 as an example of environmentally conscious architecture. The building also met the eligibility requirement for a California Historical Landmark as the most significant example in Northern California of an environmentally conscious state office building, and under the third requirement as an outstanding example of an office building designed to incorporate both innovative energy conservation and human comfort elements. DGS therefore concluded the building was eligible for inclusion in the Master List of Sate-Owned Historical Resources. The State Historic Preservation Officer (SHPO) concurred on July 25, 2016.

Summary Results of Previous Historic Resources Evaluations

As identified above, the Gregory Bateson Building is eligible for listing in the NRHP, CRHR, and with concurrence from the SHPO, is included in the Master List of Sate-Owned Historical Resources.

The Gregory Bateson Building was evaluated in accordance with Section 15064.5 (a)(2)(3) of the CEQA Guidelines and using the criteria outlined in PRC 5024.1, and is a historical resource for the purposes of CEQA.

4.3.3 Impacts and Mitigation Measures

METHODOLOGY

For purposes of discussion throughout the following impacts and mitigation measures, the term "historic resources" describes extant buildings and structures as well as subsurface historic-era features (such as wells, privies, or foundations). Prehistoric resources refer to Native American sites, features, or burials.

While there is a low likelihood that intact historic-era cultural deposits or features are present within the project site, the proximity of the project site to former high ground suggests a probability is moderate to high for the presence of intact prehistoric deposits or features at depth within the project footprint. Background research indicates that substantial prehistoric and historic deposits containing significant data have been discovered in similar settings in downtown Sacramento. Past projects have had success locating buried cultural resources using historic maps, photographs, archival data, and consultation.

Restricted surface visibility in urban areas provides only basic information on the impact of construction on subsurface archaeological deposits. Consequently, the results of a review of historical documents and previous research provide the primary basis for assessing project impacts on archaeological resources. Factors taken into account include the general history of the area, the time frame of residential development, potential for the presence of artifact-filled features, and later period development that would have disturbed archaeological features. All these factors were assessed to rate the potential for the presence of archaeological resources as high, moderate, or low:

- High potential for impacts on cultural resources was considered likely when the proposed component or alternative was in an area where no known subsurface disturbances had previously occurred and archival research indicated the presence of residential components before water and/or sewer hookup and municipal garbage pickup.
- Moderate potential for impacts on cultural resources was considered likely when the proposed component or alternative was in an area where no known belowground disturbances had previously occurred, and archival research indicated a potential for artifact-filled features.
- Low potential for impacts on cultural resources was considered likely when the proposed alternative occurred in an area of known ground disturbance. While the potential to encounter archaeological deposits was considered low under these circumstances, the possibility that isolated deposits may remain intact cannot be dismissed.

THRESHOLDS OF SIGNIFICANCE

The significance criteria used to evaluate project impacts on archaeological, historical, and tribal cultural resources under CEQA are based on Appendix G of the State CEQA Guidelines. Implementing the project would have a significant impact related to archaeological, historical, or tribal cultural resources if it would:

- cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe; or
- disturb any human remains, including those interred outside of dedicated cemeteries.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.3-1: Potential for Impacts on Significant Historic Archaeological Resources

Construction activities resulting from project implementation would include ground disturbance at the project site. Excavations required to build and remove various structures over time, and to install underground utilities, have likely removed or degraded significant historic archaeological features that may be at the project site. However, there are areas that may yet be undisturbed, thus potentially retaining significant historic archaeological resources. Because earthmoving activities could potentially affect significant historic archaeological resources within these undisturbed areas, this impact is considered **potentially significant**.

The project area has supported residential and commercial activity since the 1850s, likely represented by archaeological remains. Such remains may represent some of the earliest residential development within Sacramento. Artifact-filled features from at least the 1850s through the 1880s could contain information about the lives of early important Sacramento citizens. Important data about other lesser-known residents, including professionals, skilled workers, servants, and immigrants could also be present.

Implementation of the project would include construction-related and ground disturbing activities through connections to existing utility infrastructure. Reconnaissance of the project area determined that construction of the building and existing utility infrastructure required substantial earthmoving activities that would have likely removed or degraded any historic archaeological features that may have been encountered. Additionally, excavations required to build and remove various structures over time may have also removed or degraded historic archaeological features that may have been present. However, it is possible that portions of the project site remain undisturbed and could contain significant

intact historic archaeological deposits. If such areas have not been disturbed by previous construction activities, remaining artifacts and features could be disturbed or destroyed during project construction activities.

Overall, the project site is considered to have a moderate potential for the existence of intact archaeological deposits. However, because there is some potential for earthmoving activities associated with connections to existing utility infrastructure, there is potential to affect significant historic resources in previously undisturbed areas. This impact is considered **potentially significant**.

Mitigation 4.3-1: Monitoring and Response Measures for Potential Unknown Historic Archaeological Resources

A cultural resources awareness training program will be provided to all construction personnel active on the project site during earth moving activities. The first training will be provided prior to the initiation of ground disturbing activities. The training will be developed and conducted in coordination with a qualified archaeologist. The program will include relevant information regarding sensitive cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered.

Where ground disturbing activities occur in native soils, or there is no evidence of extensive past ground disturbances, a qualified archaeologist will monitor ground- disturbing activities. If evidence of any historic-era subsurface archaeological features or deposits are discovered during construction-related earth-moving activities (e.g., ceramic shard, trash scatters), all ground-disturbing activity in the area of the discovery shall be halted until a qualified archaeologist can access the significance of the find. If after evaluation, a resource is considered significant, all preservation options shall be considered as required by CEQA, including possible data recovery, mapping, capping, or avoidance of the resource. If artifacts are recovered from significant historic archaeological resources, they shall be housed at a qualified curation facility. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and distributes this information to the public.

Significance after Mitigation

Implementation of this mitigation measure would reduce Impact 4.3-1 to a **less-than-significant** level by requiring construction monitoring and, in the case of a discovery, preservation options (including data recovery, mapping, capping, or avoidance) and proper curation if significant artifacts are recovered.

Impact 4.3-2: Potential for Impacts on Significant Prehistoric Archaeological and Tribal Cultural Resources

There are no known significant prehistoric archaeological resources on the project site. However, one previously recorded resource has been identified adjacent to the project site. Because of this, earthmoving activities associated with project implementation could disturb or destroy previously undiscovered significant subsurface prehistoric archaeological and tribal cultural resources associated with the recorded resource. This impact is considered **potentially significant**.

Evidence of prehistoric occupation of the Sacramento region dates back several thousand years. Cultural deposits of most early or long-term occupation sites in the region are marked by cultural layers alternating with flood-deposited silts. Sites, such as one discovered on I Street, have cultural layers that are now 15 to 20 feet below the current street level (Hamilton et al. 2005). As described above for Impact 4.3-1, because the project site is developed, past construction activities may have damaged or removed subsurface archaeological and tribal cultural resources. However, there is the potential for subsurface resources, including significant prehistoric archaeological and tribal cultural resources to be present where there has been less ground disturbance or where native soils are still intact. It is also possible that artifacts and materials of importance to tribal entities could also have been deposited at the site

with imported fill. Components of the project which require substantial earthmoving could disturb or destroy unknown significant prehistoric archaeological and tribal cultural deposits.

Though there are no known significant prehistoric archaeological resources or tribal cultural resources at the project site, due to previously recorded archaeological resources adjacent to the project, there is moderate to high potential for the discovery of unknown archaeological and tribal cultural deposits. Due to the potential for earthmoving activities associated with construction to potentially affect significant prehistoric archaeological and tribal cultural resources, this impact is considered **potentially significant**.

Mitigation 4.3-2: Monitoring and Response Measures for Potential Unknown Prehistoric Archaeological Resources and Tribal Cultural Resources

This mitigation measure expands on the actions included in Mitigation Measure 4.3-1 to also address encountering unknown prehistoric archaeological and tribal cultural resources.

A representative or representatives from culturally affiliated Native American Tribe(s) will be invited to participate in the development and delivery of the cultural resources awareness training program included in Mitigation Measure 4.3-1. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The program will also underscore the requirement for confidentiality and culturally-appropriate treatment of any find of significance to Native Americans and behaviors, consistent with Native American Tribal values.

Where ground disturbing activities occur in native soils, or there is no evidence of extensive past ground disturbances, or evidence suggests that imported soils have a high probability of containing artifacts and materials of importance to tribal entities, a qualified archaeologist will monitor ground- disturbing activities. Native American representative(s) will be invited to observe any excavations. Interested Native American Tribes will be provided at least seven days' notice prior to the initiation of ground disturbing activities. If any previously undisturbed native soil is imported to the project site for fill or other purposes, the archaeologist and Native American representative(s) will also monitor handling and placement of this material to determine if archaeological material may be imported with the native soil. The determination for initiating or ending monitoring disturbance of imported soils will be made based on coordination between the qualified archeologist and Native American monitor, with a final determination made by DGS.

If evidence of any prehistoric subsurface archaeological features or deposits are discovered during construction-related earth-moving activities (e.g., lithic scatters, midden soils), all ground-disturbing activity in the vicinity of the discovery shall be halted until a qualified archaeologist and Native American representative can assess the significance of the find. If after evaluation, a resource is considered significant, or is considered a tribal cultural resource, all preservation options shall be considered as required by CEQA, including possible data recovery, mapping, capping, or avoidance of the resource. If artifacts are recovered from significant prehistoric archaeological resources, they shall be transferred to an appropriate tribal representative, or housed at a qualified curation facility. If artifacts or other materials must be removed, preference shall be given to transferring materials to an appropriate tribal representative and re-interring the material at a location on the project site. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and distributes this information to the public.

Significance after Mitigation

Implementation of this mitigation measure would reduce Impact 4.3-2 to a **less-than-significant** level by requiring construction monitoring, requiring construction to halt in the case of a discovery, preservation options (including data recovery, mapping, capping, and avoidance), and proper care of significant artifacts if they are recovered, including re-interring material on the project site.

Impact 4.3-3: Potential Discovery of Human Remains

There are no known past cemeteries or burials on the project site. However, earthmoving activities associated with project implementation could disturb or destroy previously undiscovered human remains. This impact is considered **potentially significant**.

As identified above in the discussions of Impact 4.3-1 and 4.3-2, the project site is considered to have a moderate potential for the existence of intact archaeological deposits. This assessment would also apply to the potential presence of unknown human remains, whether associated with historic era, or prehistoric occupation. There are no known past cemeteries or burials on the project site. However, because there is some potential for earthmoving activities associated with project implementation to potentially encounter unknown human remains in areas with little or no previous disturbance, this impact is considered **potentially significant**.

Mitigation 4.3-3: Response Protocol in Case Human Remains are Uncovered

Consistent with the California Health and Safety Code and the California Native American Historical, Cultural, and Sacred Sites Act, if suspected human remains are found during project construction, all work shall be halted in the immediate area, and the county coroner shall be notified to determine the nature of the remains. The coroner shall examine all discoveries of suspected human remains within 48 hours of receiving notice of a discovery on private or State lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she shall contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The NAHC shall then assign an MLD to serve as the main point of Native American contact and consultation. Following the coroner's findings, the MLD, in consultation with the State, shall determine the ultimate treatment and disposition of the remains.

Significance after Mitigation

Implementation of this mitigation measure would reduce Impact 4.3-3 to a **less-than-significant** level by requiring work to stop if human remains are found, communication with the county coroner and the proper identification and treatment of the remains consistent with the California Health and Safety Code and the California Native American Historical, Cultural, and Sacred Sites Act.

Impact 4.3-4: Potential for Impacts on Historic Architectural Resources

The Gregory Bateson Building Renovation Project would cause an adverse physical change to the Gregory Bateson Building and would result in a substantial adverse change in the significance of a historic architectural resource. This would result in a **significant** impact as described in State CEQA Guideline 15064.5(b)(1).

One historical resource in the project study area boundary (the Gregory Bateson Building) would be subject to risk of adverse physical change as a result of project-related physical demolition, destruction, relocation, or alteration per CEQA Guidelines 15064.5(b)(1). Project characteristics that include interior renovations such as window and door replacement, and exterior renovations such as repairs and replacement of various elevation features and changes to the immediate landscape have the potential to result in an adverse physical change to the historical resource if such activities impair qualities of the Gregory Bateson Building that qualify it as a CEQA historical resource. This would result in a **significant** impact on the Gregory Bateson Building.

Mitigation 4.3-4: Adherence to the Gregory Bateson Building Historic Structure Report, the Secretary of the Interior's Standards for the Treatment of Historic Properties, the California State Historical Building Code, and relevant National Park Service Preservation Briefs

DGS has a preservation architect under contract as part of the project criteria team. The preservation architect's role is to prepare a Historic Structure Report (HSR) for the Bateson Building in accordance with NPS Preservation Brief 43 and include mitigation measures in conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS) or the California Historical Building Code (CHBC). The HSR will identify historic preservation objectives

and requirements for the treatments and use of the building prior to initiation of renovations to ensure that the historical significance and condition of the building is considered in the development of proposed renovation work.

DGS will ensure that preservation treatment objectives for the Gregory Bateson Building will meet all SOIS for character-defining features designated in the HSR as having primary significance status, and meet as many SOIS as feasible for those character-defining features designated as having secondary significance status. In instances when DGS must address human safety issues not compatible with the SOIS, DGS will adhere to the CHBC to the extent feasible. The CHBC is defined in Section 18950 to 18961 of Division 13, Part 2.7 of the Health and Safety Code. The CHBC is a mechanism that provides alternative building regulations for permitting repairs, alterations and additions to historic buildings and structures. These standards and regulations are intended to facilitate the rehabilitation and preservation of historic buildings. The CHBC proposes reasonable alternatives so that a property's fire protection, means of egress, accessibility, structural requirements and methods of construction would not need to be modernized in a manner that compromises historic integrity. The CHBC is intended to allow continued, safe occupancy while protecting the historic fabric and character-defining features that give a property historic significance, thus promoting adherence to the SOIS. The CHBC recognizes that efforts to preserve the historic materials, features, and overall character of a historic property at times may be in conflict with the requirements of standard buildings codes. The Office of the State Fire Marshall (OSFM) has ultimate authority over health and safety and may require use of the standard building code in some instances.

DGS will use the HSR to help meet SOIS and CHBC requirements since it includes treatments that draw from National Park Service Preservation Briefs relevant to the proposed renovation work, including, but not limited to, Briefs providing guidance on rehabilitating interiors of historic buildings, dangers of abrasive cleaning, cleaning and water-repellent treatments, use of substitute exterior materials, improving energy efficiency, and treating architectural terra-cotta.

DGS will ensure that the HSR's historic preservation objectives and treatment requirements for the Gregory Bateson Building are incorporated into the design and construction specifications. DGS will consult with the project development team's preservation architect and with staff preservation architects within the Architectural Review and Environmental Compliance Unit of the State Office of Historic Preservation for guidance as needed.

Significance after Mitigation

Implementation of Mitigation Measure 4.3-4 would minimize the impact caused by the proposed project to a **less-than-significant** level by the application of the SOIS for all character-defining features with a primary significance or as feasible for secondary significance status, and in instances in which actions required to secure human safety are not compatible with the SOIS, the application of the CHBC. In turn, Mitigation Measure 4.3-4 will minimize or eliminate the potential for the project to impair the qualities that qualify the Gregory Bateson Building as a CEQA historical resource. The Gregory Bateson Building would retain a strong ability to convey its historical significance.

4.4 TRANSPORTATION AND CIRCULATION

This section describes the existing transportation system in the vicinity of the project site and evaluates potential impacts on the system associated with implementation of the Gregory Bateson Building Renovation Project. Roadway, transit, bicycle, and pedestrian components of the overall transportation system are included in the analysis. Impacts are evaluated under near-term (present-day) conditions with and without the project. The traffic analysis focuses on a specific project study area for transportation and circulation, which is defined in Section 4.4.2, "Environmental Setting," below.

ANALYSIS SCENARIOS

The following transportation and circulation scenarios are analyzed in this section:

- **Existing Conditions** represents the baseline condition, upon which project impacts are measured.
- **Existing-Plus-Project Conditions** reflects changes in travel conditions associated with implementation of the project.

An analysis of the project's potential cumulative traffic and circulation impacts, evaluated based on the project's consistency with the Central City Specific Plan Environmental Impact Report (EIR) (City of Sacramento 2018) is provided in Chapter 5, "Cumulative Impacts," of this EIR.

4.4.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to transportation and circulation are applicable to the Bateson Building Renovation Project. However, federal regulations relating to the Americans with Disabilities Act, Title VI, and Environmental Justice relate to transit service.

STATE

Interstate 5 Transportation Corridor Concept Report

In 2010, the California Department of Transportation (Caltrans) released the *Interstate 5 Transportation Corridor Concept Report* (TCCR) that includes portions of Interstate 5 (I-5) within the study area. Page 4 of the report shows existing operations on I-5 within the study area as being at level of service (LOS) F. The report also indicates a Concept LOS F for this corridor. The concept LOS represents the minimum acceptable service conditions over the next 20 years. The TCCR indicates that for existing LOS F conditions, no further degradation is permitted as indicated by the applicable performance measure.

US 50 Transportation Concept Report and Corridor System Management Plan

In 2014, Caltrans released the *United States Route 50 Transportation Concept Report and Corridor System Management Plan* for portions of U.S. Route 50 (US 50) within the study area. Table 13 of this report shows existing operations on US 50 as being at LOS F. The report also indicates a Concept LOS E for this corridor.

The above-referenced Caltrans LOS results are based on daily volume-to-capacity comparisons and do not necessarily consider specific operational characteristics (e.g., length of weave sections, peak hour factors, etc.) within the I-5 and US 50 corridors. Nevertheless, these data are valuable in understanding Caltrans' expectations of their current and projected operating performance.

Senate Bill 743

Senate Bill 743, passed in 2013, required the California Governor's Office of Planning and Research (OPR) to develop new CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any." OPR recently updated its CEQA Guidelines to implement SB 743 to require that vehicle miles traveled (VMT) be the primary metric used to identify transportation impacts. Local agencies have an opt-in period until July 1, 2020.

The enactment of SB 743 established CEQA exemptions for certain qualifying projects. Specifically, Public Resource Code section 21155.4 states the following:

"(a) Except as provided in subdivision (b), a residential, employment center, as defined in paragraph (1) of subdivision (a) of Section 21099, or mixed use development project, including any subdivision, or any zoning change, that meets all of the following criteria is exempt from the requirements of this division:

1) The project is proposed within a transit priority area, as defined in subdivision (a) of Section 21099.

2) The project is undertaken to implement and is consistent with a specific plan for which an environmental impact report has been certified.

3) The project is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy for which the State Air Resources Board, pursuant to subparagraph (H) of paragraph (2) of subdivision (b) of Section 65080 of the Government Code, has accepted a metropolitan planning organization's determination that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emissions reduction targets.

(b) Further environmental review shall be conducted only if any of the events specified in Section 21166 have occurred."

Public Resources Code Section 21099 defines an employment center and a transit priority area as follows:

- "Employment Center Project" is a project located on a property zoned for commercial uses with a floor area ratio of no less than 0.75 and that is located within a transit priority area.
- "Transit Priority Area" is an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.

REGIONAL PLANS AND PROGRAMS

The Sacramento Area Council of Governments (SACOG) is responsible for the preparation of, and update to, the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and the corresponding Metropolitan Transportation Improvement Program (MTIP) for the six-county Sacramento region (SACOG 2016). The MTP/SCS provides a 20-year transportation vision and corresponding list of projects. The MTIP identifies short-term projects (7-year horizon) in more detail. The current MTP/SCS was adopted by the SACOG board in 2016.

LOCAL

The Gregory Bateson Building Renovation 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 Department of General Services (DGS). 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 in its evaluation of 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.

City of Sacramento 2035 General Plan

On March 3, 2015, the City of Sacramento City Council adopted the 2035 General Plan. The Mobility Element of the City of Sacramento's 2035 General Plan outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The following LOS policy is relevant to this study:

- **Policy M 1.2.2:** The City shall implement a flexible context-sensitive Level of Service (LOS) standard and will measure traffic operations against the vehicle LOS thresholds established in this policy. The City will measure vehicle LOS based on the methodology contained in the latest version of the Highway Capacity Manual (HCM) published by the Transportation Research Board. The City's specific vehicle LOS thresholds have been defined based on community values with respect to modal priorities, land use context, economic development, and environmental resources and constraints. As such, the City has established variable LOS thresholds appropriate for the unique characteristics of the City's diverse neighborhoods and communities. The City will strive to operate the roadway network at LOS D or better for vehicles during typical weekday conditions, including AM and PM peak hour, with certain exceptions mapped on Figure M-1 (and listed in the actual General Plan document).

    A. Core Area (Central City Community Plan Area) – LOS F allowed

    B. Priority Investment Areas – LOS F allowed

    C. LOS E roadways (11 distinct segments listed). LOS E is also allowed on all roadway segments and associated intersections located within ½ mile walking distance of a light rail station.

    D. LOS F roadways (24 distinct segments listed)

    E. If maintaining the above LOS standards would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals, LOS E or F conditions may be accepted provided that provisions are made to improve the overall system, promote non-vehicular transportation and/or implement vehicle trip reduction measures as part of a development project or a city-initiated project. Additionally, the City shall not expand the physical capacity of the planned roadway network to accommodate a project beyond that identified in Figure M4 and M4a (2035 General Plan Roadway Classification and Lanes).

According to Figure M1 (Vehicle Level of Service Exception Areas) of the 2035 City of Sacramento General Plan, the project is located within a Priority Investment Area. The project site is also located within the Central City Community Plan Area (Core Area), which is bounded by the Sacramento River, American River, Broadway, and Alhambra Boulevard (Figure 4.2-1). All study intersections are located within the Core Area as well as a Priority Investment Area; therefore, LOS F is allowed at all study locations. The City's policy was adopted to allow decreased levels of service (i.e., LOS F) in the urbanized Core Area of the City that supports more transportation alternatives and places residents proximate to employment, entertainment, retail and neighborhood centers and thus reduces overall vehicle miles traveled and results in environmental benefits (e.g., improved air quality and reduced GHG emissions). Based on this evaluation, the City determined that LOS F is considered acceptable during peak hours within the Core Area.

The following policies from the City of Sacramento 2035 General Plan are also relevant to this analysis:

- **Policy M 1.2.3: Transportation Evaluation**. The City shall evaluate discretionary projects for potential impacts to traffic operations, traffic safety, transit service, bicycle facilities, and pedestrian facilities, consistent with the City's Traffic Study Guidelines.
- **Policy M 3.1.14: Direct Access to Stations.** The City shall ensure that development projects located in the Central City and within ½ mile walking distance of existing and planned light rail stations provide direct pedestrian and bicycle access to the station area, to the extent feasible.
- **Policy M 4.2.1: Accommodate All Users.** The City shall ensure that all new roadway projects and any reconstruction projects designate sufficient travel space for all users including bicyclists, pedestrians, transit riders, and motorists except where pedestrians and bicyclists are prohibited by law from using a given facility.

Central City Specific Plan

In April of 2018, the City of Sacramento adopted the Central City Specific Plan that establishes a future vision for the Sacramento Central City area, which includes the site of the Gregory Bateson Building. Similar to the 2035 General Plan Policy M 3.1.14, the Central City Specific Plan Policy M.6.11, Access to Transit Stations, supports safe and convenient pedestrian and bicycle access to/from light rail and streetcar stations while minimizing conflicts between travel modes.

4.4.2 Environmental Setting

This section describes the existing environmental setting related to roadway, bicycle, pedestrian, and transit facilities, which is the baseline scenario upon which project-specific impacts are evaluated. The baseline scenario is based on data collection and field observations conducted in February 2017, July 2018, and March 2019.

PROJECT STUDY AREA

The following factors were considered when developing the transportation and circulation study area: the project's expected travel characteristics (including number of vehicle trips and directionality of those trips), primary travel routes to/from project vicinity, anticipated parking locations, mode split, and other considerations. Figure 4.4-1 shows the study area, project site, and 20 study intersections selected for analysis. The study area also includes bicycle, pedestrian, and transit facilities in the project vicinity.

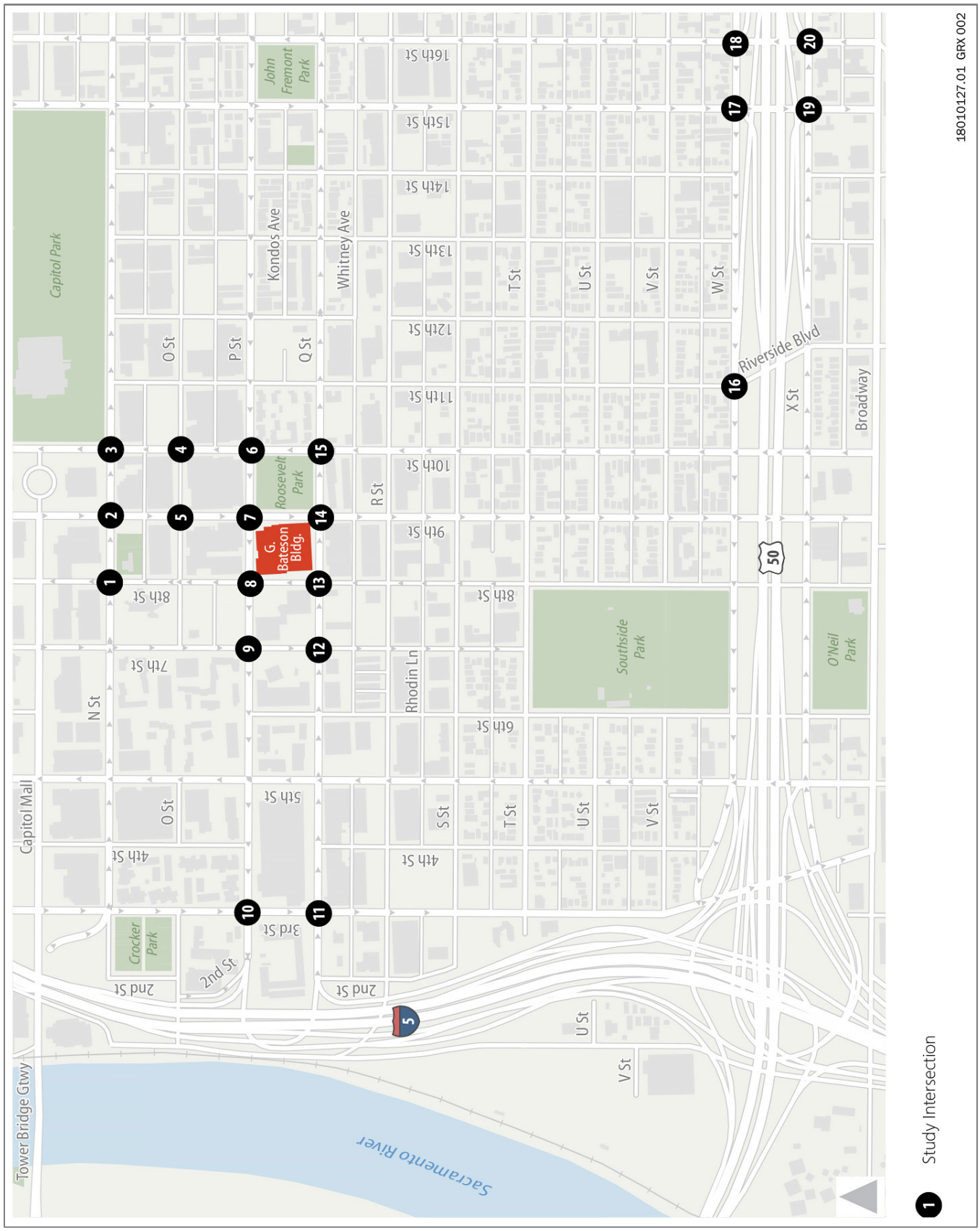
Intersections

1. N Street / 8th Street
2. N Street / 9th Street
3. N Street / 10th Street
4. O Street / 10th Street
5. O Street / 9th Street
6. P Street / 10th Street
7. P Street / 9th Street
8. P Street / 8th Street
9. P Street / 7th Street
10. P Street / 3rd Street
11. Q Street / 3rd Street
12. Q Street / 7th Street
13. Q Street / 8th Street
14. Q Street / 9th Street
15. Q Street / 10th Street
16. W Street / 11th Street
17. W Street / 15th Street / US 50 WB On Ramp
18. W Street / 16th Street / US 50 WB Off Ramp
19. X Street / 15th Street / US 50 EB Off Ramp
20. X Street / 16th Street / US 50 EB On Ramp

Roadway Network

The study area is served by a system of gridded streets comprised of numbered north-south streets and lettered east-west streets, spaced approximately every 400 feet. Most portions of the street grid feature east-west running alleys located halfway between lettered streets, resulting in a 200-foot north-south distance between east-west trending public roadways. The following key roadways within this system serve trips associated with the Gregory Bateson Building:

- 8th Street is a primary three-lane, one-way northbound roadway within the study area. Curbside parking is available on both sides of the street south of O Street and on the east side of the street north of O Street within the study area. Between O Street and P Street, 8th Street is currently two-lanes; the third lane is temporarily closed due to construction of the P Street Office Building Project.
- 9th Street is a primary two-lane, one-way southbound roadway within the study area, and forms a couplet with 10th Street. Bicycle lanes and curbside parking are located on both sides of the roadway.
- 10th Street is a primary two-lane, one-way northbound roadway within the study area, and forms a couplet with 9th Street. Bicycle lanes are provided on the right side of the roadway (including buffered or parking protected bike lanes between I Street and Q Street); curbside parking is available on both sides of the roadway.

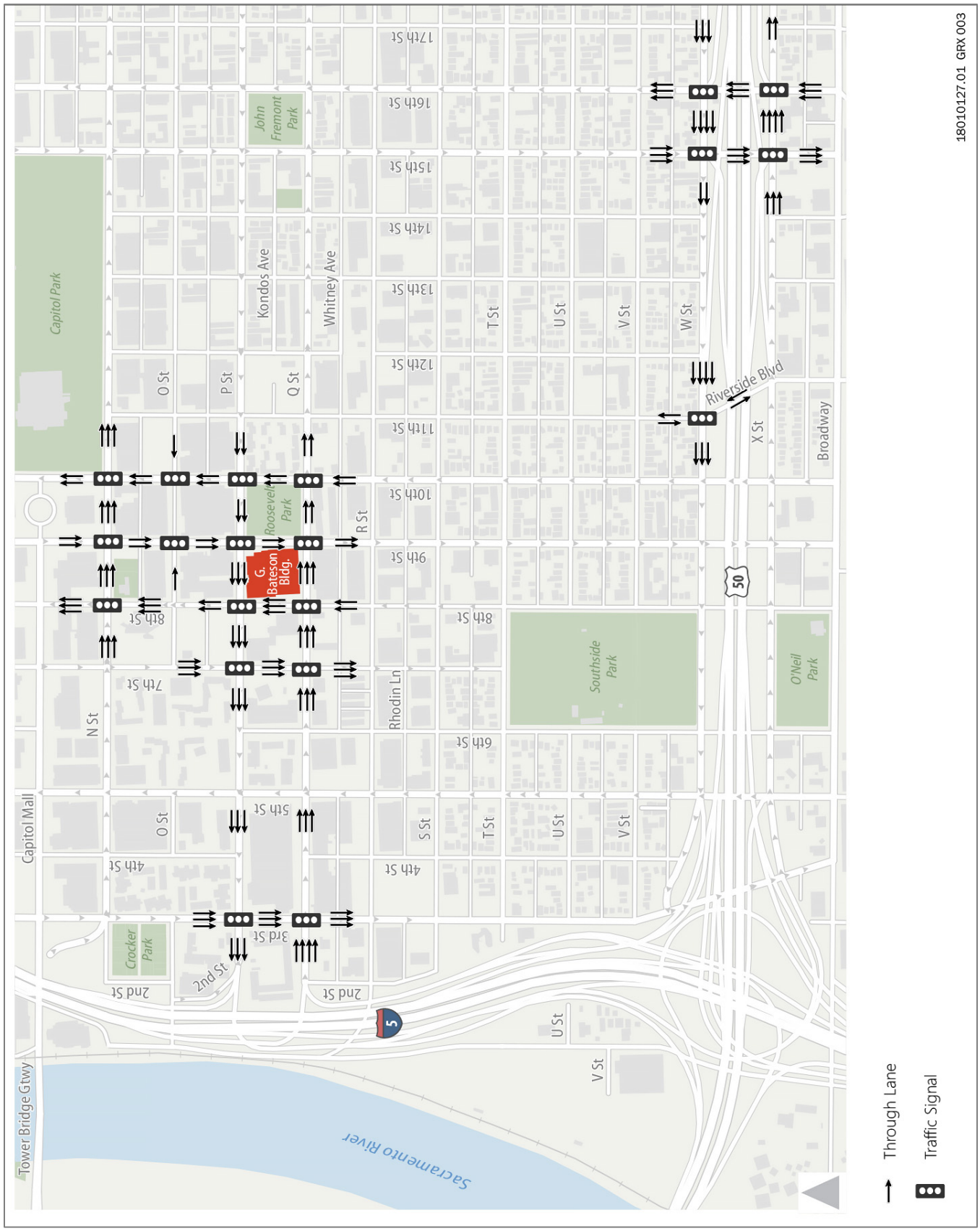


Source: Image Prepared and Provided by Fehr & Peers in 2019

Figure 4.4-1 Study Area

- 11th Street is minor two-lane, two-way, north-south roadway within the study area. Bicycle lanes are located on both sides of the street to the south of P Street. Curbside parking is located on both sides of the street throughout the study area.
- 12th Street is a minor two-lane, two-way, north-south roadway within the study area. The roadway features shared light-rail tracks/vehicle travel lanes between O Street and Q Street. Between Q Street and R Street, the roadway is disconnected for vehicle traffic because of the light-rail. Curbside parking is located on both sides of the roadway.
- L Street is a primary three-lane, one-way westbound roadway within the study area. Curbside parking is located on both sides of the roadway. The roadway connects to the I-5 on-ramps in the western portion of the study area.
- N Street is a primary three-lane, one-way eastbound roadway within the study area. This three-lane roadway extends through downtown Sacramento before transitioning to a two-lane, two-way roadway to the east of 21st Street. Curbside parking is located on both sides of the roadway.
- O Street is an intermittently connected east-west roadway within the study area. Between 7th Street and 9th Street, the roadway is one-way eastbound and is adjacent to separated light-rail tracks. Between 9th Street and 12th Street, the roadway serves light-rail and is closed to vehicle traffic. Between 12th Street and 13th Street, the roadway is temporarily closed due to construction of the State's new 1215 O Street Office Building. To the east of 13th Street, O Street is a two-lane, two-way street with curbside parking.
- P Street is a primary one-way westbound roadway within the study area and forms a couplet with Q Street. East of 9th Street, it is a two-lane roadway with curbside parking on both sides and a parking protected bike lane on the right side of the roadway. West of 9th Street, it transitions to a three-lane roadway with curbside parking located on both sides. The roadway connects to the I-5 on-ramps in the western portion of the study area.
- Q Street is a primary, one-way eastbound roadway within the study area, and forms a couplet with P Street. West of 9th Street, it is a three-lane roadway with curbside parking located on both sides. East of 9th Street, it becomes a two-lane roadway with a protected parking bike lane on the left side of the roadway. The roadway originates from the I-5 off-ramps in the western portion of the study area.
- W Street is generally a three-lane, one-way westbound roadway within the study area. This roadway functions as the westbound frontage road for the US 50 Freeway. Curbside parking is located on the north side of the roadway.
- X Street is generally a three-lane, one-way eastbound roadway within the study area. This roadway functions as the eastbound frontage road for the US 50 Freeway. Curbside parking is located on the south side of the roadway.

Figure 4.4-2 illustrates the study roadway facilities including the number and direction of travel lanes, as well as existing traffic controls present at all study intersections.



Source: Image Prepared and Provided by Fehr & Peers in 2019

Figure 4.4-2 Existing Roadway Facilities and Traffic Controls

Truck Routes

All federal and state highways within the City of Sacramento have been designated as truck routes by Caltrans, including I-5 and US 50 within the study area, and are included in the National Network for Surface Transportation Assistance Act (STAA) of 1982. The City identified 31 two-way streets as City truck routes in addition to all one-way streets, as shown on the STAA truck routes map. Within the study area, the following streets are considered City truck routes:

- 3rd Street,
- 5th Street,
- 7th Street,
- 8th Street,
- 9th Street,
- 10th Street,
- 15th Street,
- 16th Street,
- N Street,
- P Street, and
- Q Street.

TRAFFIC DATA COLLECTION

Traffic counts were collected at the study intersections on Wednesday, February 15, 2017, Thursday, July 26, 2018, and Tuesday, March 26, 2019 during the a.m. (7:00 to 9:00 a.m.) and p.m. (4:00 to 6:00 p.m.) peak periods. During all counts, weather conditions were generally dry. The counts conducted in February 2017 and March 2019 reflect typical peak period travel patterns in downtown Sacramento when the Sacramento City Unified School District and the California State Legislature are in full session. The count data collected in July 2018 (when schools were not in session) was adjusted based on the February 2017 and March 2019 count data to reflect typical peak period travel patterns. Where an imbalance occurred between the February 2017 and March 2019 data, counts were adjusted based on the most recent March 2019 data. In addition to collecting vehicle turning movements at the study intersections, all counts included pedestrian and bicycle activity.

Person trip counts at the Gregory Bateson Building (i.e., the number of individuals entering and exiting the building) were collected at both the entrance/exit on 8th Street and the entrance/exit on 9th Street on April 23, 2019 during the AM and PM peak periods. Person trips were used to develop trip generation for the project and are described in greater detail below, under Section 4.4.3, in "Methodology."

STUDY PERIODS

Based on the traffic data collection, the a.m. and p.m. peak hours within the study area occurred from 7:45 to 8:45 a.m. and 4:30 to 5:30 p.m. AM and PM peak hours coincide with the expected peak commute times for office employees in downtown Sacramento.

ROADWAY SYSTEM

Level of Service Definitions

Each study intersection was analyzed using the concept of LOS. LOS is a qualitative measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. In general, LOS A represents free-flow conditions with no congestion, and LOS F represents severe congestion and delay under stop-and-go conditions. Table 4.4-1 displays the delay range associated with each LOS category for signalized and unsignalized intersections.

Table 4.4-1 Intersection Level of Service Definitions

Level of Service	Description (for Signalized Intersections)	Average Delay (Seconds/Vehicle) Signalized Intersections
A	Operations with very low delay occurring with favorable traffic signal progression and/or short cycle lengths.	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35.0 to 55.0
E	Operations with high delay values indicating poor progression, and long cycle lengths. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	> 55.0 to 80.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0

Note: LOS = level of service; V/C ratio= volume-to-capacity ratio

LOS at signalized intersections and roundabouts based on average delay for all vehicles. LOS at unsignalized intersections is reported for entire intersection and for minor street movement with greatest delay.

Source: Transportation Research Board 2016

For signalized intersections, LOS is based on the average delay experienced by all vehicles passing through the intersection.

Existing Traffic Volumes

Figure 4.4-3 displays the existing AM and PM peak hour intersection traffic volumes, traffic controls, and lane configurations.

Existing Intersection Operations

Table 4.4-2 displays the existing peak-hour intersection operations at the study intersections (refer to Appendix C for technical calculations).

Table 4.4-2 Intersection Operations – Existing Conditions

Intersection	Traffic Control	Peak Hour	Existing Conditions Delay [a]	Existing Conditions LOS
1. N Street / 8th Street	Signal	AM PM	10 13	A B
2. N Street / 9th Street	Signal	AM PM	9 12	A B
3. N Street / 10th Street	Signal	AM PM	6 7	A A
4. O Street / 10th Street	Signal	AM PM	4 3	A A
5. O Street / 9th Street	Signal	AM PM	6 13	A B
6. P Street / 10th Street	Signal	AM PM	16 17	B B
7. P Street / 9th Street	Signal	AM PM	7 21	A C
8. P Street / 8th Street	Signal	AM PM	5 6	A A

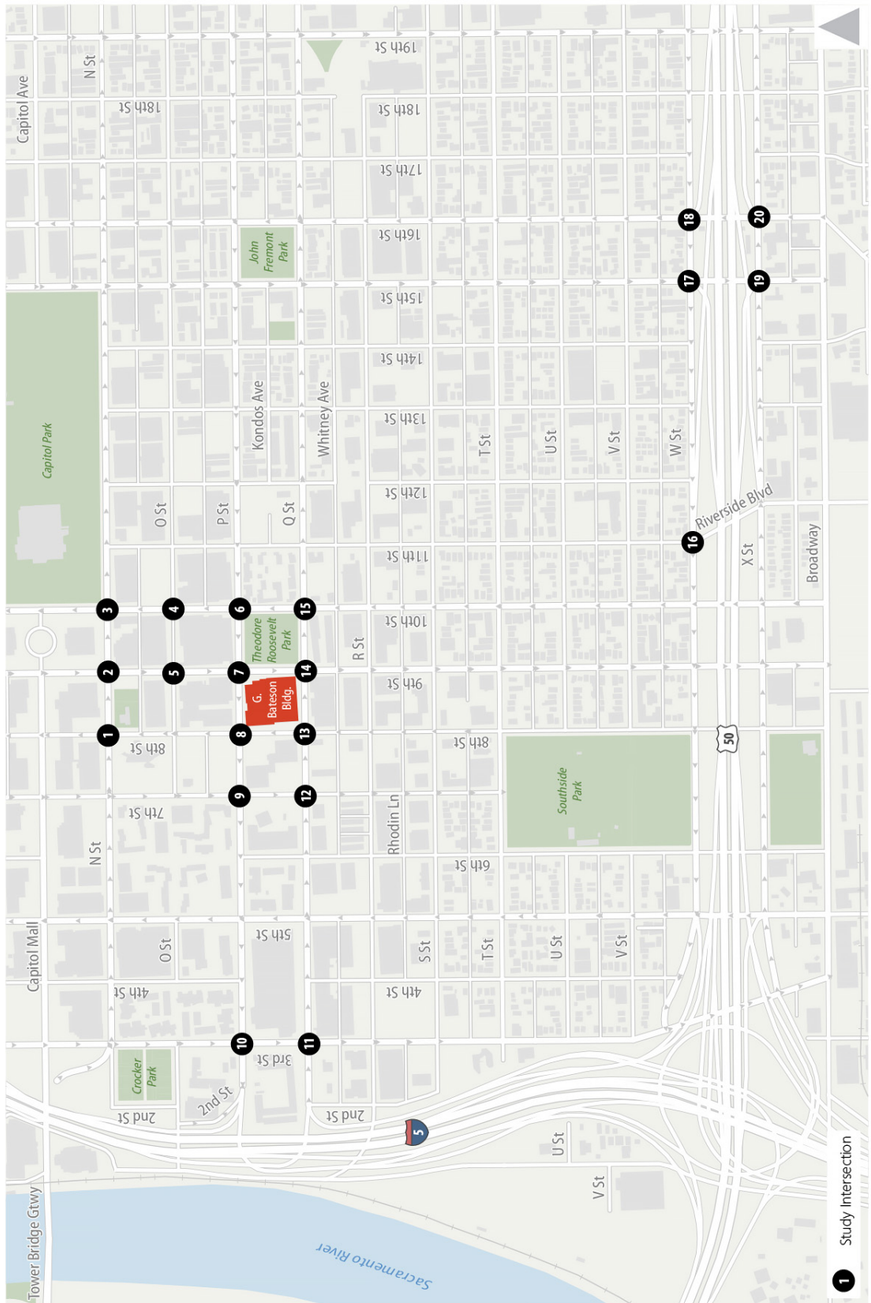
Intersection	Traffic Control	Peak Hour	Existing Conditions Delay [a]	Existing Conditions LOS
9. P Street / 7th Street	Signal	AM PM	4 6	A A
10. P Street / 3rd Street	Signal	AM PM	10 20	A C
11. Q Street / 3rd Street	Signal	AM PM	13 12	B B
12. Q Street / 7th Street	Signal	AM PM	17 8	B A
13. Q Street / 8th Street	Signal	AM PM	22 10	B B
14. Q Street / 9th Street	Signal	AM PM	19 11	B B
15. Q Street / 10th Street	Signal	AM PM	27 19	C B
16. Q Street / 11th Street	Signal	AM PM	14 17	B B
17. W Street / 15th Street / WB On-Ramp	Signal	AM PM	10 16	A B
18. W Street / 16th Street / WB Off-Ramp	Signal	AM PM	35 38	D D
19. X Street / 15th Street / EB Off-Ramp	Signal	AM PM	18 33	B C
20. X Street / 16th Street / EB On-Ramp	Signal	AM PM	14 19	B B

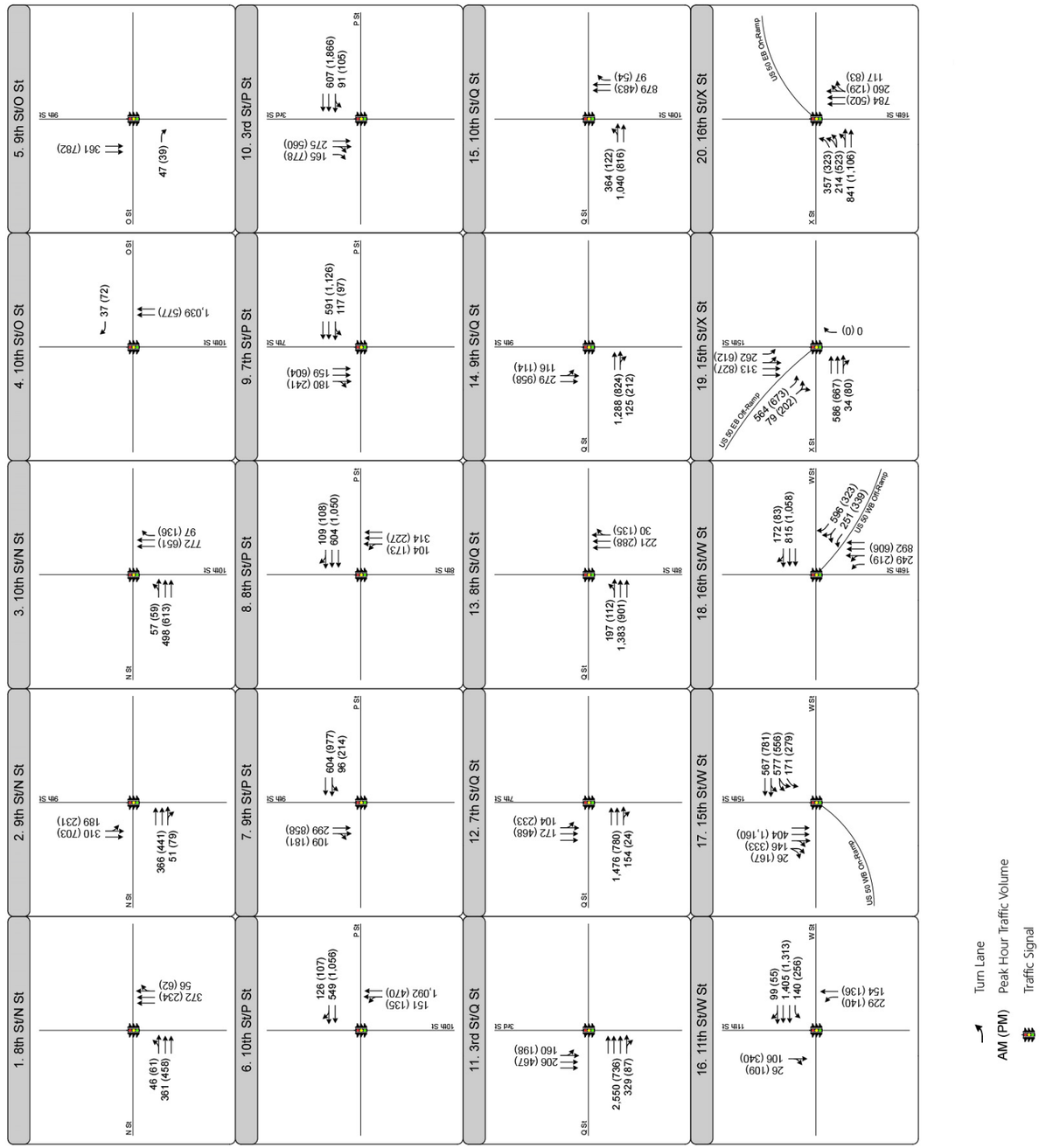
Notes: LOS = Level of Service.

[a] For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. Intersection LOS and delay is calculated based on the procedures and methodology contained in the Highway Capacity Manual 6th Edition (Transportation Research Board 2016). All intersections were analyzed in SimTraffic.

Source: Fehr & Peers 2019

Most intersections currently operate at LOS C or better under both the AM and PM peak hours; however, intersection 18 (W Street / 16th Street / US 50 WB Off-Ramp) operates at LOS D during both peak hours. Overall, the existing roadway system within the area can be characterized as operating efficiently. Motorists typically incur modest delays, do not experience sustained vehicle queues, and benefit from the coordinated traffic signal system along the primary commute corridors that connect downtown to the regional freeway system.





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Source: Image Prepared and Provided by Fehr & Peers in 2019

Figure 4.4-3 Existing Conditions Peak Hour Traffic Volumes and Lane Configurations

Existing Off-Ramp Queues

Table 4.4-3 displays the existing off-ramp queuing within the study area during the AM and PM peak hours. As shown, all study freeway off-ramp queues remain within the available storage area during both peak hours.

Table 4.4-3 Off-Ramp Queuing – Existing Conditions

Location	Available Storage [a]	Peak Hour	Existing Conditions Queue [b]
Interstate 5 SB Off-Ramp at Q Street (from Q Street/3rd Street)	1,700 feet	AM PM	350 feet 125 feet
Interstate 5 NB Off-Ramp at Q Street (from Q Street/3rd Street)	2,075 feet	AM PM	375 feet 100 feet
US 50 WB Off-Ramp at 10th Street [c] (from W Street/11th Street)	2,150 feet	AM PM	— —
US 50 WB Off-Ramp at 16th Street (from W Street/16th Street)	1,050 feet	AM PM	325 feet 275 feet
US 50 EB Off-Ramp at 15th Street (from X Street/15th Street)	1,125 feet	AM PM	225 feet 300 feet

[a] The available storage length for off-ramp queuing is measured from the noted off-ramp terminal intersection to the freeway off-ramp gore point.

[b] Maximum queue length is based upon output from SimTraffic microsimulation software.

[c] The US WB Off-Ramp at 10th Street (as specified by freeway wayfinding signage) is measured from the initial off-ramp terminal intersection of W Street/11th Street.

Source: Fehr & Peers 2019

TRANSIT PRIORITY AREA

Public Resources Code Section 21099 defines a Transit Priority Area as an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within a planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.

Public Resources Code Section 21064.3 defines a major transit stop as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

As described below under "Transit System," the Gregory Bateson Building is located within one-half mile of multiple major transit stops; therefore, the project site is located within a Transit Priority Area.

EXISTING VEHICLE MILES TRAVELED PER SERVICE POPULATION

Table 4.4-4 displays the existing daily VMT per service population (total residents and employees) within the study area. The study area used for the VMT calculations is the Sacramento Core Area (Central City Community Plan Area), which is shown in Figure 4.2-1.

Table 4.4-4 Sacramento Core Area VMT per Service Population – Existing Conditions

Scenario	Sacramento Core Area Residents	Sacramento Core Area Employees	Sacramento Core Area Service Population	Sacramento Core Area Generated Daily Vehicle Trips	Sacramento Core Area Generated Daily VMT	Sacramento Core Area Generated Daily VMT per Service Population
Existing Conditions	25,936	87,641	113,577	534,772	4,190,318	36.89

Source: Data provided by Fehr & Peers in 2018

With implementation of the City's Central City Specific Plan, the study area average VMT per employee is 77 percent of the existing countywide average, which is below the 85 percent threshold used to identify significant impacts (Central City Specific Plan EIR 2018). This means that implementation of the Central City Specific Plan, including consistent land use development and transportation improvements, would have no significant impact on per employee VMT in the Central City Specific Plan area, and would not require further project-specific analysis of VMT for the purposes of CEQA compliance.

TRANSIT SYSTEM

Local transit service within the study area is provided by Sacramento Regional Transit District (SacRT), which operates 70 bus routes and 43 miles of light rail on three lines (Blue Line, Gold Line, and Green Line) throughout a nearly 400-square-mile service area. Buses and light rail run 365 days a year, using 97 light rail vehicles, 192 buses, and 20 shuttle vans. Currently, weekday light rail ridership averages about 40,000 daily passenger boardings, and weekday bus ridership is approximately 37,000 daily passenger boardings.

The project site is located one block south of the 8th Street and O Street SacRT light rail station. The eastbound boarding platform is located on the north side of O Street, west of 8th Street and the westbound boarding platform is located on the north side of O Street, east of 8th Street. This station is served by all three SacRT light rail lines.

The Blue and Gold Lines generally operate on 15-minute headways, with 30-minute headways during evenings, weekend mornings, and holidays. The Green Line operates on 30-minute headways throughout the day.

- Blue Line – connects to Watt/I-80 Station to the north and Cosumnes River College Station to the south. The Blue Line operates from about 4:00 a.m. through 1:00 a.m. Monday through Friday, from about 4:30 a.m. through 1:00 a.m. on Saturday, and from about 5:00 a.m. through 11:00 p.m. on Sunday and holidays.
- Gold Line – connects to Sacramento Valley Station (Amtrak) in downtown Sacramento to the west and Historic Folsom Station to the east. During weekdays, every other eastbound trip terminates at Sunrise Station. The Gold Line operates from about 4:00 a.m. through 12:30 a.m. Monday through Friday, from about 5:00 a.m. through 12:30 a.m. on Saturday, and from about 5:00 a.m. through 10:30 p.m. on Sunday and holidays.
- Green Line – connects 13th Street Station in downtown Sacramento and Township 9 Station in the River District. The Green Line operates from about 6:00 a.m. through 9:00 p.m. Monday through Friday. No service is provided on Saturday, Sunday, or holidays.

Multiple bus routes provided by SacRT serve the study area and with stops within close proximity of the project site, including three which are located along the frontage of the Bateson Building; one on 8th Street, one on P street, and one on 9th Street. These routes are described in Table 4.4-5 below.

Table 4.4-5 SacRT Bus Service Within a Quarter Mile of the Project Site

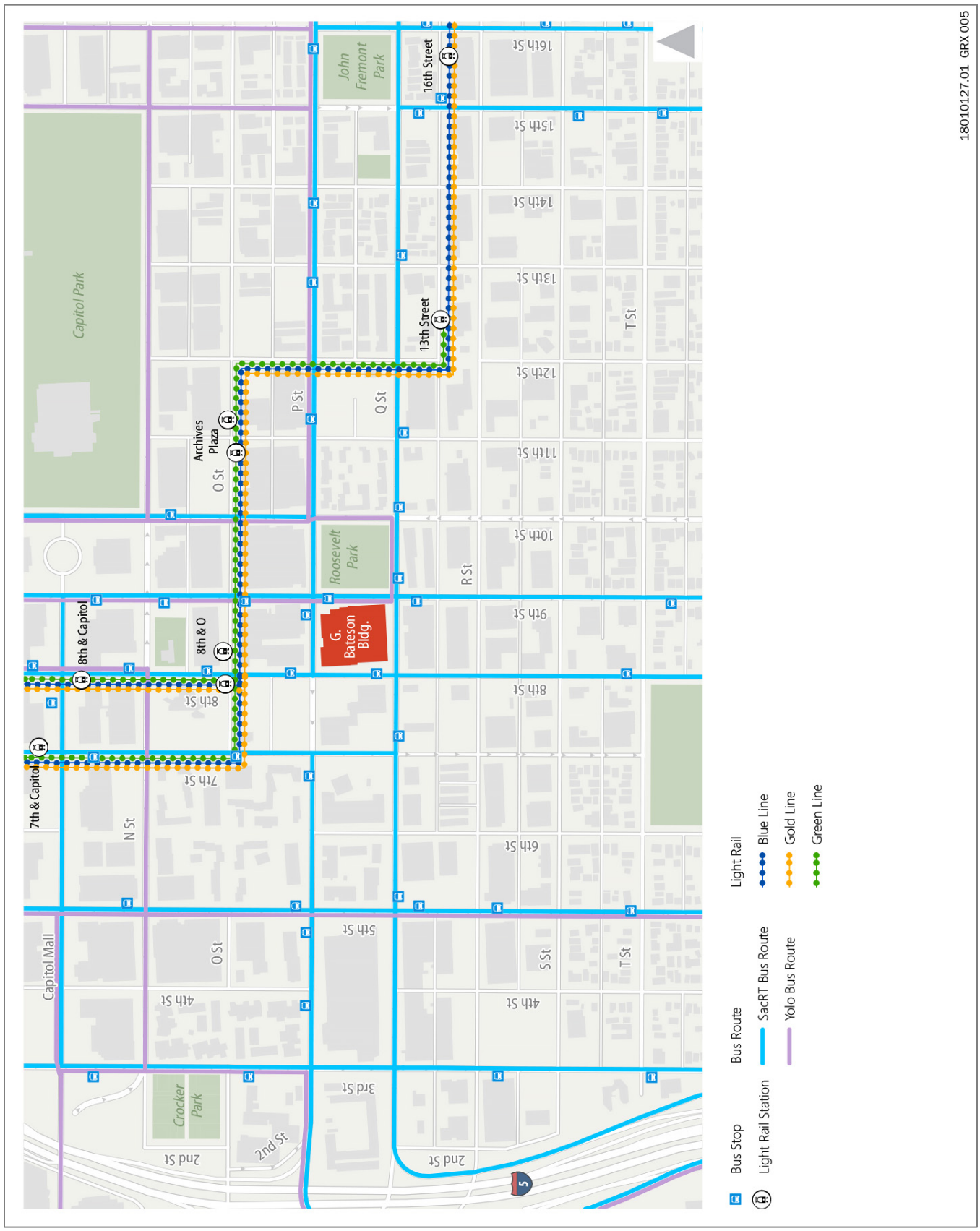
Route	Connection	Weekday Peak Hour Frequency (Minutes)	Weekday Service Span Begins	Weekday Service Span Ends	Weekend Service Span Begins Sat (Sun)	Weekend Service Span Ends Sat (Sun)
2	Pocket Area Land Park	60	5:30 AM	7:00 PM	N/A	N/A
6	Pocket Area Land Park	60	6:15 AM	8:00 PM	N/A	N/A
15	Del Paso Heights Richards Blvd	30	5:30 AM	9:00 PM	8:00 AM	9:00 PM
34	East Sac Midtown	60	5:00 AM	7:00 PM	N/A	N/A

Route	Connection	Weekday Peak Hour Frequency (Minutes)	Weekday Service Span Begins	Weekday Service Span Ends	Weekend Service Span Begins Sat (Sun)	Weekend Service Span Ends Sat (Sun)
38	University/65th Street Light Rail Station Upper Land Park	60	6:30 AM	9:00 PM	7:45 AM (8:00 AM)	8:45 PM (6:30 PM)
51	Florin Area Oak Park Broadway Area	15	5:30 AM	10:30 PM	6:15 AM (5:15 AM)	10:45 PM (9:15 PM)
170	East-Natomas	30	6:00 AM	7:00 PM	N/A	N/A
171	West-Natomas	30	6:00 AM	6:30 PM	N/A	N/A
172	Central-Natomas	30	6:00 AM	7:00 PM	N/A	N/A

Source: Fehr & Peers 2019

In addition to SacRT, several other transit agencies including Yolobus, Elk Grove Transit (e-tran), Roseville Transit, El Dorado Transit, Yuba-Sutter Transit, Placer County Transit, Folsom Stage Lines, the San Joaquin Regional Transit District, and Amador Regional Transit System offer commuter service into downtown Sacramento. These bus routes generally run only during the peak AM and PM commute periods, and serve employees commuting into downtown Sacramento from throughout the greater Sacramento region.

Figure 4.4-4 displays the locations of existing rail transit service and existing local and commuter bus routes within the study area.



Source: Image Prepared and Provided by Fehr & Peers in 2019

Figure 4.4-4 Existing Transit Services

BICYCLE SYSTEM

Figure 4.4-5 displays existing bicycle facilities in the study area. The following types of bicycle facilities serve the study area:

- Multi-use paths (Class I) – are paved trails that are separated from roadways and allow for shared use by both cyclists and pedestrians.
- On-street bike lanes (Class II) – are designated for use by bicycles by striping, pavement legends, and signs.
- On-street bike routes (Class III) – are designated by signage for shared bicycle use with vehicles but do not necessarily include any additional pavement width.
- Separated bikeways (Class IV, also known as protected bikeways or cycle tracks) – separated bikeways improve upon buffered bike lanes by providing vertical separation between bike lanes and the adjacent travel lanes. Vertical separation can be provided with concrete curb and gutter, bollards or on-street parking.

The project site is served by a variety of bicycle facilities. Class II bike lanes exist near the project site along 9th Street in the north/south direction and along Capitol Mall in the east/west direction. Class IV parking-protected bikeways are present near the project site on P Street (east of 9th Street) and Q Street (east of 9th Street).

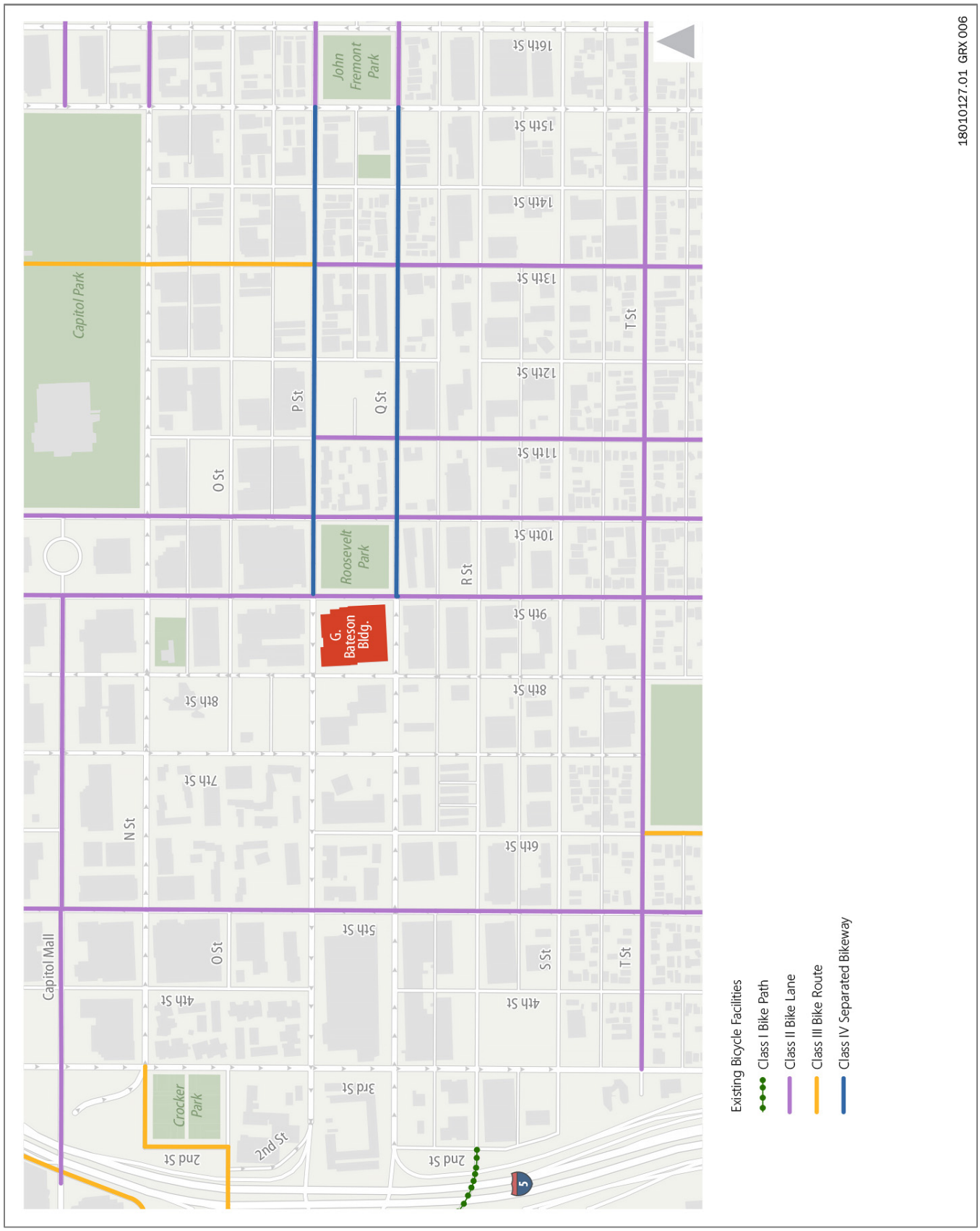
PEDESTRIAN SYSTEM

The high level of connectivity provided by the study area's gridded street system, concentration of land uses, and provision of consistent high-quality pedestrian facilities results in higher levels of pedestrian travel within the study area relative to other portions of the City. According to data from the 2010 Census, 15 percent of the residents within the Central City (which is comprised of midtown and downtown) walk to work on a regular basis, which is approximately five times the rate of the City as a whole.

Nearly all streets in the study area feature sidewalks on both sides of the roadway, and sidewalk widths typically range between 6 and 15 feet. Sidewalks are present on all streets adjacent to the project site (along 8th Street, 9th Street, P Street, and Q Street), with a typical width of 8 feet. Near the project site, all sidewalks are separated from the roadway by on-street parking and landscaped planter strips. These streetscape features, including shade trees, increase pedestrian comfort.

Traffic signals within the study area operate on relatively short cycle lengths, and all have automatic walk signals for pedestrians; combined, these features result in low levels of crossing delay for pedestrians.

Within the vicinity of the project site, marked crosswalks are provided on all approaches at the P Street/9th Street, Q Street/8th Street and Q Street/9th Street intersections. However, at the Q Street/8th Street intersection, the condition of the existing crosswalk markings on the north and south legs are poor, as the pavement markings are degrading. At the P Street/8th Street intersection, marked crosswalks are only provided on the south/east legs of the intersection, while the north/west approaches lack marked crosswalks. This is due to temporary sidewalk closures caused by the P Street Office Building Project construction activity occurring on the parcel northwest of the intersection. The south and east legs are in poor condition as well, as the pavement markings are degraded. However, the P Street Office Building Project will improve crosswalks on the south/east legs and install new crosswalks at the north/west legs; construction is anticipated to be complete in 2021. Therefore, these crosswalks will be completed prior to occupancy of the Gregory Bateson Building.



Source: Image Prepared and Provided by Fehr & Peers in 2019

Figure 4.4-5 Existing Bicycle Facilities

4.4.3 Environmental Impacts and Mitigation Measures

This section describes the analysis techniques, assumptions, and results used to identify potential significant impacts of the project on the transportation system. Transportation and circulation impacts are described and assessed, and mitigation measures are recommended for impacts identified as significant or potentially significant.

METHODOLOGY

The transportation and circulation analysis methodology uses the anticipated travel characteristics of the project (see Chapter 3, "Project Description," of this EIR), trip generation and mode split assumptions, and vehicle trip distribution, as described below.

Project Trip Generation and Travel Mode Split

The Gregory Bateson Building is located within an urban environment with convenient access to transit, walking and bicycling as commute options. For this reason, trip generation rates in units of person trips and a commuter survey were used to determine vehicle trip generation rates, rather than using the Institute of Transportation Engineer's vehicle trip rates. Although the Trip Generation Manual (ITE 2017) does contain person trip rates for certain land uses, no such rates are provided for office projects in urban settings.

Person Trip Generation

To determine the person trip generation rate, the number of individuals entering and exiting each entrance/exit of the Bateson Building were counted on April 23, 2019 during the a.m. (7:00 to 9:00 a.m.) and p.m. (4:00 to 6:00 p.m.) peak periods. This was considered a typical weekday for count purposes with clear weather conditions and local schools in session. The observed a.m. peak hour was from 7:30 to 8:30 a.m. The observed p.m. peak hour was from 4:15 to 5:15 p.m. Table 4.4-6 displays the results of the observations.

Table 4.4-6 Existing Person Trip Generation for the Gregory Bateson Building

Existing Employees	Person Trips AM Peak Hour Total	Person Trips AM Peak Hour In	Person Trips AM Peak Hour Out	Person Trips PM Peak Hour Total	Person Trips PM Peak Hour In	Person Trips PM Peak Hour Out	Person Trip Rate AM Peak Hour Total	Person Trip Rate AM Peak Hour In	Person Trip Rate AM Peak Hour Out	Person Trip Rate PM Peak Hour Total	Person Trip Rate PM Peak Hour In	Person Trip Rate PM Peak Hour Out
960	333	291	42	317	21	296	0.34	0.30	0.04	0.33	0.02	0.31

Source: Fehr & Peers 2019

The developed person trip rate was then used to calculate the person trip generation for the project based on the estimated 10 percent increase in employees (an additional 96 employees). Table 4.4-7 displays the proposed project trip generation.

Table 4.4-7 Proposed Person Trip Generation for the Gregory Bateson Building

Increase in Employees	Person Trips AM Peak Hour Total	Person Trips AM Peak Hour In	Person Trips AM Peak Hour Out	Person Trips PM Peak Hour Total	Person Trips PM Peak Hour In	Person Trips PM Peak Hour Out	Person Trip Rate AM Peak Hour Total	Person Trip Rate AM Peak Hour In	Person Trip Rate AM Peak Hour Out	Person Trip Rate PM Peak Hour Total	Person Trip Rate PM Peak Hour In	Person Trip Rate PM Peak Hour Out
96	0.34	0.30	0.04	0.33	0.02	0.31	33	29	4	32	2	30

Source: Fehr & Peers 2019

Data from an employee survey conducted for DGS was then used to determine the mode split and ultimately, the vehicle trip generation rate, during the a.m. and p.m. peak hours. This is described in greater detail below.

Mode Split

An employee survey conducted for DGS, which was administrated in December 2018 and January 2019, was used to determine the mode split for the project. Because DGS employees work in various locations throughout the Sacramento region, the survey was filtered to only include results of employees with a worksite zip code of 95814, which is the zip code of the Bateson Building.

Employees were then asked the following question (among others), which was used to determine the mode split for the project.

During a typical workday, what is the primary mode of transportation you use to travel from home to work?

- *Drive alone and park*
- *Bus*
- *Capitol Corridor A Train*
- *Light Rail*
- *Ride-hailing Service (Uber, Lyft, etc.)*
- *Carpool*
- *Vanpool*
- *Bicycle/Bikeshare*
- *Walk*
- *Other (please specify)*

This resulted in a total of 5,073 responses; however, 209 respondents selected "Other" and typed out a response. In most cases, these respondents either use a combination of modes to travel to work (e.g. bus or drive to light rail and then walk to work) or do not have a primary mode (e.g. some days they walk, some days they bike, some days they drive). Because commute choice varied, these responses were removed from the results, resulting in a total sample size of 4,864 employees.

Those that selected Bus, Capitol Corridor Train, or Light Rail were grouped into one "Transit" category. Table 4.4-8 displays the travel mode split percentages. As shown, approximately 64 percent of employees are expected to commute by vehicle (i.e. drive alone, carpool, vanpool, or use a ride-hailing service).

Table 4.4-8 Travel Mode Split

Travel Mode	Existing Mode Split
Drive Alone	47.6%
Carpool	15.8%
Vanpool	0.7%
Transit	27.4%
Bicycle/Bikeshare	5.1%
Walk	3.3%
Ride-hailing Service (Uber, Lyft, etc.)	0.1%

Source: DGS 2018

The project person trip generation by mode split is displayed in Table 4.4-9.

Table 4.4-9 Gregory Bateson Building Renovation Project Person Trip Generation By Travel Mode

Travel Mode	Mode Split	Personal Trips AM Peak Hour Total	Personal Trips AM Peak Hour In	Personal Trips AM Peak Hour Out	Personal Trips PM Peak Hour Total	Personal Trips PM Peak Hour In	Personal Trips PM Peak Hour Out
Drive Alone	47.6%	16	14	2	15	1	14
Carpool	15.8%	6	5	1	5	0	5
Vanpool	0.7%	0	0	0	0	0	0
Transit	27.4%	9	8	1	9	1	8
Bike	5.1%	1	1	0	2	0	2
Walk	3.3%	1	1	0	1	0	1
Ride-hail	0.1%	0	0	0	0	0	0

Notes: Travel mode split is based on the 2018/2019 State Employee Commute Survey of employees who work in Zip Code 95814.

Sources: DGS 2018; Fehr & Peers 2019

Vehicle Trip Generation

To determine vehicle trip generation, person trips made by those that drive alone, carpool, vanpool, or use ride-hail were combined. Due to the small number of employees that carpool, and fact that it is unknown if those employees carpooled with an employee that works in the same building or a different building, one vehicle trip was assumed for each carpooler. Table 4.4-10 shows the number of vehicle trips anticipated to occur based on the project's estimated increase in 96 employees.

Table 4.4-10 Gregory Bateson Building Renovation Project Vehicle Trip Generation

Daily[a] Total	AM Peak Hour Total	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out
183	22	19	3	20	1	19

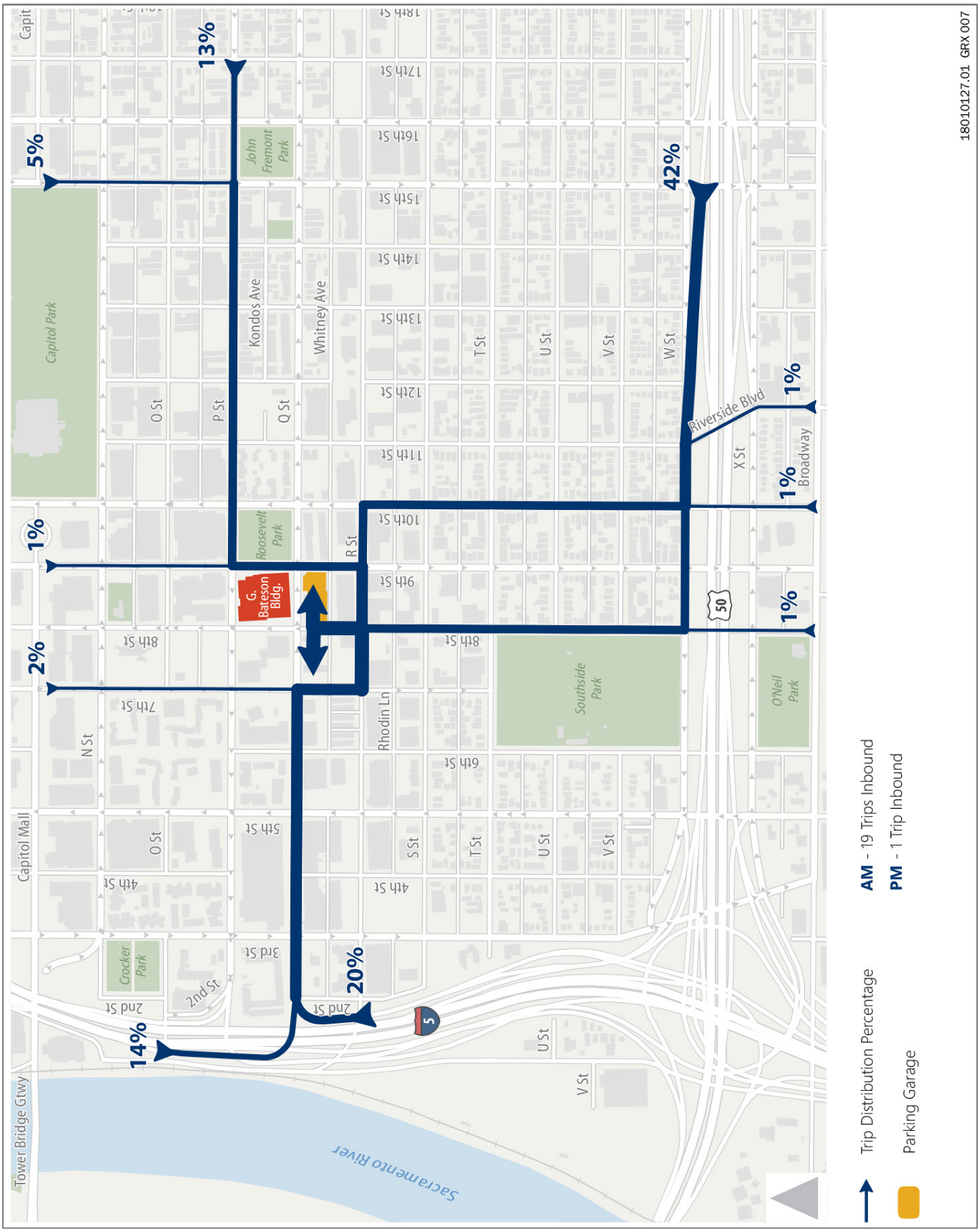
[a] Daily trips were calculated using the ratio of combined AM/PM trips to daily trips provided in the Institute of Transportation Engineer's Trip Generation Manual (2017) for General Office (ITE Land Use Code 710).

Source: Fehr & Peers 2019

Project Vehicle Trip Distribution and Assignment

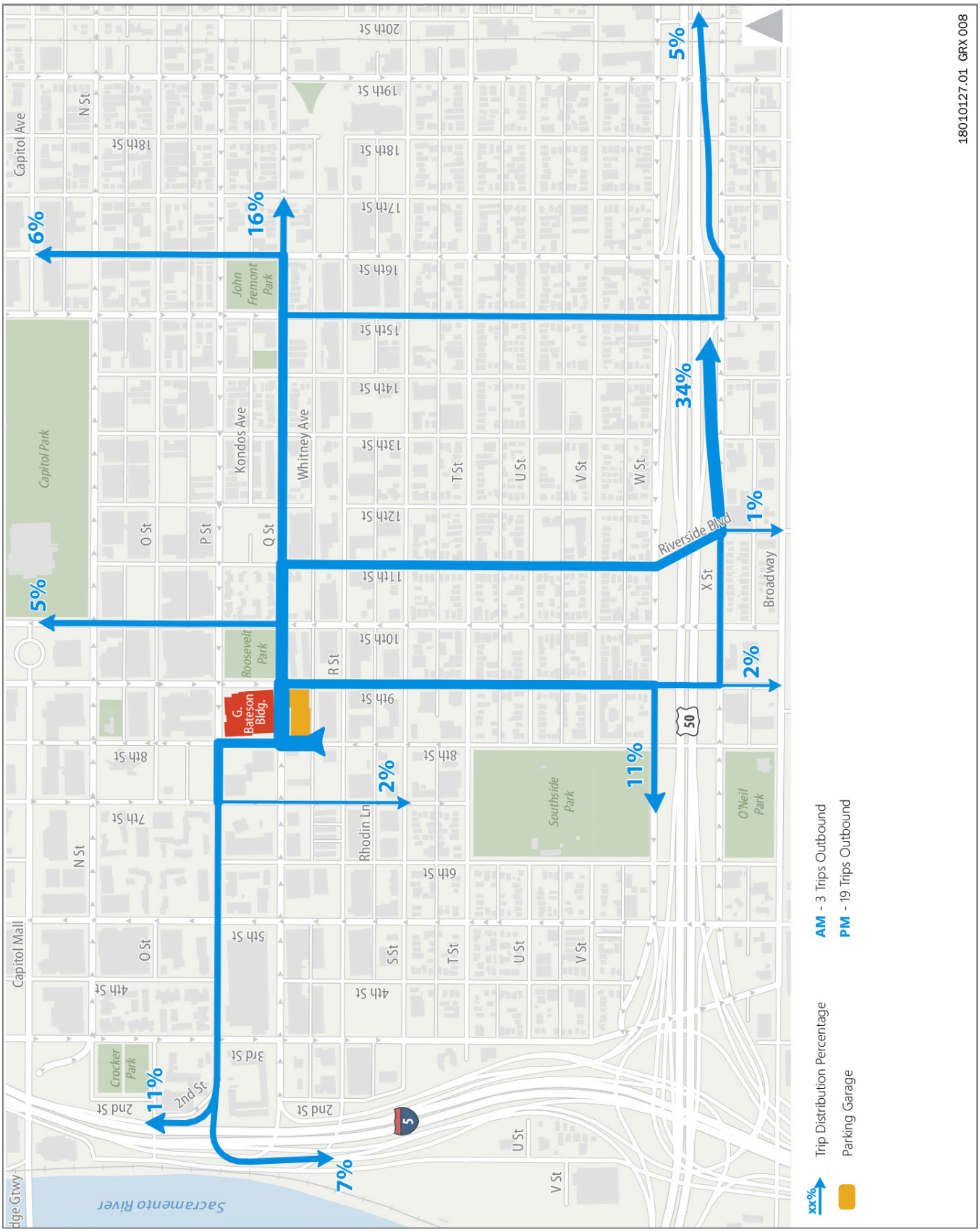
Project vehicle trips were distributed throughout the study area generally consistent with the distribution used in the P Street Office Building Project EIR (DGS 2017) (see Appendix C), which was developed using travel time comparison from Google Maps during peak commute hours for routes to each parking location, the 2016 State Employee Commute Survey – employee residences by zip code; and, parking supply and availability in the vicinity of the project site (as outlined in the Existing Parking Supply and Availability Memorandum, December 16, 2016; see Appendix C). This distribution is appropriate for the Gregory Bateson Building Renovation Project given the fact that the two buildings are diagonal from each other.

Minor modifications to the distribution occurred because fewer trips are proposed with this project and, therefore, do not need to be distributed amongst as many parking locations. Separate distributions for inbound and outbound trips were developed because of the number of one-way streets and differing inbound and outbound route travel times. Figures 4.4-6 and 4.4-7 show the expected distribution for the Gregory Bateson Building Renovation Project.



Source: Image Prepared and Provided by Fehr & Peers in 2019

Figure 4.4-6 Inbound Trip Distribution



Source: Image Prepared and Provided by Fehr & Peers in 2019

Figure 4.4-7 Outbound Trip Distribution

THRESHOLDS OF SIGNIFICANCE

The significance criteria used to evaluate the project impacts to transportation and traffic under CEQA are based on Appendix G of the CEQA Guidelines, and thresholds of significance adopted by the City of Sacramento in applicable plans and environmental documents, including the 2035 General Plan Master EIR (City of Sacramento 2014) and the Central City Specific Plan EIR (City of Sacramento 2018). The following describes the significance criteria used to identify project-specific impacts to the transportation and circulation system.

Intersections

Impacts to the roadway system would be significant if:

- traffic generated by the project degrades the overall roadway system operation to the extent that the project would not be consistent with General Plan Policy M 1.2.2 relating to the City's allowable Level of Service; or
- traffic generated by the project substantially degrades operation of intersections and roadway segments, despite compliance with General Plan policies.

General Plan Mobility Element Policy M 1.2.2 sets forth definitions for what is considered an acceptable LOS. All study intersections are in the Core Area and are governed by Policy M 1.2.2 (A), under which LOS F is acceptable during peak hours, provided the project contributes other acceptable improvements to transportation-system-wide roadway capacity, intersections, or non-auto travel modes in furtherance of General Plan goals. Road widening or other improvements to road segments are not required.

Freeway Facilities

Impacts to the freeway system would be significant if:

- project traffic causes off-ramp traffic to queue back to beyond the freeway gore point (i.e., the triangular-shaped zone painted with several white lines that is designed to help safely manage traffic merging onto and off a roadway) or worsens an existing/projected queuing problem on a freeway off-ramp.

Vehicle Miles Traveled

Impacts related to VMT would be considered significant if:

- the office/employment center use is not within a Transit Priority Area and VMT per employee exceeds 85 percent of the existing average VMT per employee for Sacramento County.

Transit

Impacts to the transit system would be significant if the project would:

- adversely affect public transit operations, or
- fail to adequately provide access to transit.

Bicycle Facilities

Impacts to bicycle facilities are considered significant if the project would:

- adversely affect existing or planned bicycle facilities, or
- fail to adequately provide for access by bicycle.

Pedestrian Circulation

Impacts to pedestrian circulation are considered significant if the project would:

- adversely affect existing or planned pedestrian facilities, or
- fail to adequately provide for access by pedestrians.

Construction-Related Traffic Impacts

Construction-related traffic impacts would be significant if they would:

- degrade an intersection or roadway to an unacceptable level;
- cause substantial inconvenience to motorists because of prolonged road closures; or
- result in substantially increased potential for conflicts between vehicles, pedestrians, and bicyclists.

The first significance criterion bullet listed above under "Intersections" is the City's interpretation of how General Plan Policy M 1.2.2 should be applied in the Core Area and Priority Investment Areas of the City. This policy allows these areas to have intersections that operate at LOS F. However, such conditions should not be detrimental toward other General Plan circulation policies (including but not limited to policies M 1.2.1, 1.2.4, 1.3.3, and 1.3.5), which pertain to providing high-quality transit, walkable neighborhoods and business districts, continuous and connected bikeways, transportation demand management, emergency response, and other circulation considerations. So, while a single intersection operating at LOS F during the peak hour may be considered acceptable, an entire roadway system that experiences severe gridlock, and hampers all modes of travel is generally not considered acceptable. To this end, the evaluation of this significance criterion focuses on the totality of system operations to assess consistency with General Plan Policy M 1.2.2.

In developing Policy M 1.2.2, the City evaluated the benefits of allowing lower levels of service to promote infill development within an urbanized high density area of the city that reduces VMT and supports more transportation alternatives, including biking, walking, and transit, as compared to requiring a higher level of service that would accommodate more cars but may also require widening roads and would result in increased vehicle miles traveled and greenhouse gas emissions. Based on this evaluation, the City determined that LOS F is considered acceptable during peak hours within the Core Area, as long as the project provides acceptable improvements to other parts of the citywide transportation system, as described above.

The City's LOS policy was adopted to allow decreased levels of service (i.e., LOS F) in the urbanized Core Area of the City that supports more transportation alternatives and places residents proximate to employment, entertainment, retail, and neighborhood centers and thus reduces overall vehicle miles traveled and results in environmental benefits (e.g., improved air quality and reduced GHG emissions).

ISSUES NOT DISCUSSED FURTHER

Per SB 743 and more specifically, Public Resource Code Section 21155.4, the project is exempt from VMT analysis based on the following:

1) The Gregory Bateson Building is located within a Transit Priority Area, as defined in subdivision (a) of Public Resource Code Section 21099, as it is located within one-half mile of an existing major transit stop.
2) The project is undertaken to implement and is consistent with the intent of the Central City Specific Plan and the Central City Specific Plan Environmental Impact Report, which was certified on April 19, 2018.
3) The project is consistent with the general use designation, density, building intensity, and applicable policies specific for the project area identified in the 2016 Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), which identifies the project area as a higher density major employment center.

Additionally, the project does not require further project-specific analysis of VMT for the purposes of CEQA compliance per the Central City Specific Plan. With implementation of the City's Central City Specific Plan, the study area average VMT per employee is 77 percent of the existing countywide average, which is below the 85 percent threshold used to identify significant impacts (Central City Specific Plan EIR 2018). Since the average VMT per employee does not exceed 85 percent of the countywide average calculated by SACOG, the impact would not be cumulatively considerable. Implementation of the Central City Specific Plan, including all consistent land use development and transportation improvements, would have no significant impact on per employee VMT in the Central City Specific Plan area, and would not require further project-specific analysis of VMT for the purposes of CEQA compliance. Therefore, project-related VMT is not discussed further in this EIR.

EXISTING-PLUS-PROJECT CONDITIONS

This section focuses on presenting the effects of the project on existing conditions (i.e. the Existing-Plus-Project Conditions), identifying significant impacts, and recommending mitigation measures, where necessary.

Impact 4.4-1: Impacts to Intersection Operations

The project would add an estimated 22 AM peak hour vehicle trips and 20 PM peak hour vehicle trips related to 96 new employees. Based on the traffic modeling and analysis, all study area intersections would operate at acceptable levels of service. Because the project would not cause any intersection operations to degrade to unacceptable levels, this would be a **less-than-significant** impact.

Existing-Plus-Project traffic volumes account for the addition of vehicle trips (associated with 96 new employees) to the existing volumes, in accordance with the trip distribution previously presented. Figure 4.4-8 displays the resulting AM and PM peak hour intersection traffic volumes under Existing-Plus-Project Conditions.

Table 4.4-11 shows the Existing-Plus-Project peak-hour intersection operations at the study intersections (refer to Appendix C for technical calculations). Intersections would operate at LOS C or better overall, except for Intersection 18, which would operate at LOS D during both peak hours, and Intersection 19, which would operate at LOS D during the PM peak hour. In general, the project would result in relatively minor changes in traffic operations within the study area, and all study intersections would operate acceptably. This would be a **less-than-significant** impact.

Table 4.4-11 Intersection Operations – Existing and Existing-Plus-Project Conditions

Intersection	Traffic Control	Peak Hour	Existing Conditions Delay[1]	Existing Conditions LOS	Existing-Plus-Project Conditions Delay[1]	Existing-Plus-Project Conditions LOS
1. N Street / 8th Street	Signal	AM PM	10 13	A B	10 13	A B
2. N Street / 9th Street	Signal	AM PM	9 12	A B	9 12	A B
3. N Street / 10th Street	Signal	AM PM	6 7	A A	7 6	A A
4. O Street / 10th Street	Signal	AM PM	4 3	A A	4 4	A A
5. O Street / 9th Street	Signal	AM PM	6 13	A B	7 14	A B
6. P Street / 10th Street	Signal	AM PM	16 17	B B	16 17	B B
7. P Street / 9th Street	Signal	AM PM	7 21	A C	8 20	A C
8. P Street / 8th Street	Signal	AM PM	5 6	A A	5 5	A A
9. P Street / 7th Street	Signal	AM PM	4 6	A A	4 6	A A
10. P Street / 3rd Street	Signal	AM PM	10 20	A C	10 20	A B
11. Q Street / 3rd Street	Signal	AM PM	13 12	B B	13 13	B B
12. Q Street / 7th Street	Signal	AM PM	17 8	B A	17 8	B A

Intersection	Traffic Control	Peak Hour	Existing Conditions Delay[1]	Existing Conditions LOS	Existing-Plus-Project Conditions Delay[1]	Existing-Plus-Project Conditions LOS
13. Q Street / 8th Street	Signal	AM PM	22 10	B B	19 11	B B
14. Q Street / 9th Street	Signal	AM PM	19 11	B B	19 12	B B
15. Q Street / 10th Street	Signal	AM PM	27 19	C B	26 19	C B
16. Q Street / 11th Street	Signal	AM PM	14 17	B B	14 17	B B
17. W Street / 15th Street / WB On-Ramp	Signal	AM PM	10 16	A B	10 16	A B
18. W Street / 16th Street / WB Off-Ramp	Signal	AM PM	35 38	D D	37 38	D D
19. X Street / 15th Street / EB Off-Ramp	Signal	AM PM	18 33	B C	17 40	B D
20. X Street / 16th Street / EB On-Ramp	Signal	AM PM	14 19	B B	14 21	B C

1. For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. Intersection LOS and delay is calculated based on the procedures and methodology contained in the Highway Capacity Manual 6th Edition (Transportation Research Board, 2016). All intersections were analyzed in SimTraffic.

Source: Fehr & Peers 2019

Mitigation Measures

No mitigation is required for this impact.

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Source: Image Prepared and Provided by Fehr & Peers in 2019

Figure 4.4-8 Existing-Plus-Project Peak-Hour Turning Movement Volumes and Lane Configurations

Impact 4.4-2: Impacts to Freeway Off-Ramp Queuing

The project would result in minor changes in queue lengths at study area freeway off-ramps. The project would not cause queuing at any freeway off-ramps that approach or extend beyond its storage capacity. Therefore, this would be a **less-than-significant** impact.

Table 4.4-12 displays the Existing-Plus-Project off-ramp queuing results within the study area during the AM and PM peak hour. As shown, the project would result in minor changes in queuing. Queue lengths would generally remain the same or slightly increase with implementation of the project. All queues would remain within the available storage. This would be a **less-than-significant** impact.

Table 4.4-12 Off-Ramp Queuing – Existing-Plus-Project Conditions

Location	Available Storage [a]	Peak Hour	Existing Conditions Queue [b]	Existing-Plus-Project Queue [b]
Interstate 5 SB Off-Ramp at Q Street (from Q Street/3rd Street)	1,700 feet	AM PM	350 feet 125 feet	375 feet 100 feet
Interstate 5 NB Off-Ramp at Q Street (from Q Street/3rd Street)	2,075 feet	AM PM	375 feet 100 feet	300 feet 100 feet
US 50 WB Off-Ramp at 10th Street[c] (from W Street/11th Street)	2,150 feet	AM PM	— —	— —
US 50 WB Off-Ramp at 16th Street (from W Street/16th Street)	1,050 feet	AM PM	325 feet 275 feet	350 feet 250 feet
US 50 EB Off-Ramp at 15th Street (from X Street/15th Street)	1,125 feet	AM PM	225 feet 300 feet	225 feet 400 feet

[a] The available storage length for off-ramp queuing is measured from the noted off-ramp terminal intersection to the freeway off-ramp gore point.

[b] Maximum queue length is based upon output from SimTraffic microsimulation software.

[c] The US WB Off-Ramp at 10th Street (as specified by freeway wayfinding signage) is measured from the initial off-ramp terminal intersection of W Street/11th Street.

Source: Fehr & Peers 2019

Mitigation Measures

No mitigation is required for this impact.

Impact 4.4-3: Impacts to Transit

The project would generate demand for nine additional transit trips during each peak hour due to 96 new employees. Because the project area is served by multiple and substantial transit services, the increase in demand would be accommodated by existing available transit. The project results in a minor increase in automobile (22 trips in the AM and 20 trips in the PM peak hour), bicycle (one trip in the AM and two trips in the PM peak hour), and pedestrian (one trip in each peak hour) trips and, therefore, is not anticipated to adversely affect light rail or bus operations. Potential transit users are able to access the nearby light rail stations and bus stations by utilizing existing sidewalks and crosswalks. This would be a **less-than-significant** impact.

Renovation of the Bateson Building may allow for a 10 percent increase in the current 960 employees, resulting in 96 new employees. These additional employees may generate demand for nine additional transit trips during the AM peak hour and nine additional transit trips during the PM peak hour as a result of the new employees. Multiple transit options exist within the study area, including the Blue, Gold, and Green Line light rail lines, which all serve a station located within one block from the project site (8th and O Station). Multiple SacRT bus lines also serve the study area, as well as the multitude of commuter bus routes that have stops within a ¼ mile of the project site. The increase in demand generated by the project could be accommodated by existing available transit.

The project would result in a minor increase in automobile, bicycle, and pedestrian trips within the immediate vicinity of the project site, including portions of the transportation network utilized by bus and rail transit service. Because the project generates very few in automobile (22 trips in the AM and 20 trips in the PM peak hour), bicycle (one trip in the AM and two trips in the PM peak hour), and pedestrian (one trip in each peak hour) trips, and all study intersections will continue to operate acceptably with the proposed project, the project would not disrupt existing light rail or bus operations.

Access to nearby transit stops and stations would be provided by the exiting pedestrian network surrounding the project site, including sidewalks, crosswalks, and automatic walk signals at signalized intersections. Contiguous sidewalks are currently present along each of the project's frontages and provide connection to adjacent contiguous sidewalks that connect to nearby major transit stops. However, as previously documented, the following pedestrian facilities are lacking along key pedestrian routes connecting the project site with nearby transit facilities:

- P Street/8th Street
  - North leg – Currently lacks a marked crosswalk. This crossing location would be utilized for project access to the 8th and O Street light rail station.
  - South leg - The existing marked crosswalk is degraded. This crossing location would be utilized for project access to/from the P Street/7th Street bus stop.
  - East leg - The existing marked crosswalk is degraded. This crossing location would be utilized for project access to/from the 8th and O Light Rail Station and the P Street/8th Street bus stop.
  - West leg – Currently lacks a marked crosswalk. This crossing location would be utilized for project access to the 8th and O Street light rail station.

The lack of marked crosswalks on the north and west leg of the P Street/8th Street intersection is due to temporary construction activity occurring as a result of the P Street Office Building Project, which is located on the parcel northwest of the intersection. The project resulted in the removal of 269 surface parking spaces to construct a new office building, which will accommodate approximately 3,500 total employees and 50 below-grade parking spaces. Sidewalks are temporarily closed along the north side of P Street and the west side of 8th Street during construction. Therefore, pedestrians are temporarily required to use the sidewalks on the south side of P Street and east side of 8th Street. However, sidewalks will be reconstructed with the P Street Office Building Project, and crosswalks will be upgraded and installed on all legs of the P Street/8th Street intersection by 2021, prior to occupancy of the renovated Bateson Building. This would be **a less-than-significant** impact.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.4-4: Impacts to Bicycle Facilities

The project would result in an increase of one bicycle trip in the AM peak hour and two bicycle trips in the PM peak hour. Downtown Sacramento is served by an extensive bicycle network, providing project employees with adequate access to bicycle facilities. The project would not change existing bicycle facilities and the minimal number of additional bicycle trips is not anticipated to adversely affect the existing bicycle network. This would be a **less-than-significant** impact.

Implementation of the project would generate 1 new bicycle trip in the AM peak hour and 2 new bicycle trips in the PM peak hour. As previously documented, the project site is served by the extensive downtown Sacramento bicycle network, including Class II bike lanes and Class IV parking-protected bikeways near the project site on 9th Street, P Street and Q Street. Together, these facilities would provide adequate bicycle access to and from the project site. The project would not change the existing bicycle facilities and the minimal number of additional bicycle trips is not anticipated to adversely affect the existing bicycle network. Therefore, this would be a **less-than-significant** impact.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.4-5: Impacts to Pedestrian Facilities

The project site is served by an extensive pedestrian network of sidewalks, crosswalks, and automatic pedestrian walk signals. The project would not change the existing network. Therefore, this would be a **less-than-significant** impact.

The existing surrounding network of sidewalks, crosswalks, and automatic pedestrian walk signals, and the upgraded crosswalk improvements at P Street/8th Street associated with the P Street Office Building Project, would provide a high-quality pedestrian environment for employees in the renovated Gregory Bateson Building. The project would not change the existing network. This would be considered a **less-than-significant** impact.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.4-6: Construction-Related Impacts

Project construction may require restricting or redirecting pedestrian, bicycle, and vehicular movements around the site to accommodate material hauling, materials staging, modifications to utility connections, and or exterior building repairs or modifications. Such restrictions would include fencing off the sidewalks around the building, but would not require vehicular lane closures. Material deliveries and haul trips would require temporary truck parking next to the building, using existing street parking. Construction traffic impacts would be localized and temporary; no off-site staging would occur as materials and equipment would be delivered using a Just-in-Time method; and DGS or its contractor would prepare and implement a Construction Traffic Management Plan to reduce the temporary impacts to the degree feasible. For these reasons, construction traffic impacts would be **less-than-significant**.

Project construction is anticipated to begin winter 2020 and be complete, with tenant occupancy, in 2024. The project would generate truck and worker trips during the renovation activities including hazardous materials abatement, utility upgrades, and interior and exterior renovations. The construction labor force would fluctuate depending on the phase of work, but is expected to range from 75 to 95 workers at peak times. Because the magnitude of these trips during peak hours would be less than what the existing office development generates (which would be closed during construction), absolute impacts (in terms of delay and queuing) would not be significant.

During construction, it may be necessary to restrict or redirect pedestrian, bicycle, and vehicular movements around the site to accommodate material hauling, materials staging, modifications to utility connections, and or exterior building repairs or modifications. Such restrictions would include fencing off the sidewalks around the building, but would not require extended vehicular lane closures. Material deliveries and haul trips would require temporary truck parking next to the building, using existing street parking. Vehicular, pedestrian, and bicycle access to apartments, offices, and other uses in the vicinity of the Bateson Building would be maintained at all times.

In accordance with Sacramento City Code, DGS or its selected contractor will prepare a Construction Traffic Management Plan, which is subject to approval by the City of Sacramento Traffic Engineer and subject to review by all affected agencies. The plan will be designed to ensure acceptable operating conditions on local roadways studied as a part of this EIR and affected by construction traffic. At a minimum, the plan shall include a:

- description of trucks, including: number and size of trucks per day, expected arrival/departure times, and truck circulation patterns;
- description of bicycle and pedestrian facility closures, including: duration, advance warning and posted signage, safe and efficient access routes for emergency vehicles, and use of manual traffic control; and/or
- description of driveway access plan, including: provisions for safe vehicular, pedestrian, and bicycle travel; minimum distance from any open trench; special signage; and private vehicle accesses.

Construction traffic impacts would be localized and temporary and DGS or its contractor would prepare and implement a Construction Traffic Management Plan that meets the approval of the City Traffic Engineer, in accordance with City Code. For these reasons, the project's construction traffic impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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 Gregory Bateson Building Renovation Project (project) and the impact of the project on these systems. The analysis is based on documents obtained from the City of Sacramento, the Sacramento Regional County Sanitation District (Regional San), and personal communications with DGS and the design architect team.

For an evaluation of the project's potential impacts related to the inefficient, wasteful, and unnecessary consumption of energy, refer to Section 4.8, "Energy."

4.5.1 Regulatory Setting

DOMESTIC WATER

Federal

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

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 DHS to protect the public from contaminants in drinking water by establishing maximum contaminant levels (MCLs) that are at least as stringent as those developed by EPA, as required by the federal SDWA.

Local

The Gregory Bateson Building Renovation 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 DGS. 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 in its evaluation of 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

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. 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

NPDES Permit for the Sacramento Regional Water 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

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 for the Sacramento and South Placer Regions

The Stormwater Quality Design Manual outlines planning tools and requirements to reduce urban runoff pollution to the maximum extent practicable from new development and redevelopment projects. The manual is a collaborative effort between multiple jurisdictions and is intended to satisfy the regulatory requirements of municipal stormwater permits. The plan provides planning and design tools for use by planners, architects, landscape architects, engineers and environmental professionals.

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).

ENERGY

For regulatory information related to energy, refer to Section 4.8, "Energy."

SOLID WASTE

Federal

No federal plans, policies, regulations, or laws are applicable to solid waste services for the project.

State

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of in landfills, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of their generated waste from landfill facilities by January 1, 1995 and 50 percent by January 1, 2000. Solid waste plans are required to explain how each city's AB 939 plan will be integrated with the county plan. In order of priority, the plans must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal.

In 1999, Governor Davis signed AB 75 (Chapter 764, Statutes of 1999), which mandated that State agencies comply with AB 939 diversion requirements.

In addition to the requirements of AB 75, the following policies and statutes address State agency recycling:

- Executive Order W-7-91 requires California State agencies to buy recycled products and set up recycling programs.
- Public Contract Code (PCC) Sections 12164.5–12167.1 require the CalRecycle to develop a recycling plan and implement recycling programs for the Legislature and all State-owned and leased buildings.
- PCC 12167.1 requires State agencies and institutions to report materials collected for recycling to the CalRecycle.
- PRC 42560–42562 requires the CalRecycle to recycle high-grade white office paper in California State offices.
- California State Administration Manual Chapter 1990 encourages employees at State facilities to prevent waste, reuse, and recycle.

Local

City of Sacramento 2035 General Plan

The goals and policies listed below from the Utilities Element are relevant to effects on solid waste.

GOAL U 5.1: Solid Waste Facilities. Provide adequate solid waste facilities, meet or exceed State law requirements, and utilize innovative strategies for economic and efficient collection, transfer, recycling, storage, and disposal of refuse.

- **Policy U 5.1.1: Zero Waste.** The City shall achieve zero waste to landfills by 2040 through reusing, reducing, and recycling solid waste; and using conversion technology if appropriate. In the interim, the City shall achieve a waste reduction goal of 75 percent diversion from the waste stream over 2005 levels by 2020 and 90 percent diversion over 2005 levels by 2030, and shall support the Solid Waste Authority in increasing commercial solid waste diversion rates to 30 percent.
- **Policy U 5.1.8: Diversion of Waste**. The City shall encourage recycling, composting, and waste separation to reduce the volume and toxicity of solid wastes sent to landfill facilities.
- **Policy U 5.1.9: Electronic Waste Recycling**. The City shall continue to coordinate with businesses that recycle electronic waste (e.g., batteries, fluorescent lamps, compact-fluorescent (CFL) bulbs) and the California Product Stewardship Council to provide convenient collection/drop off locations for city residents.
- **Policy U 5.1.14: Recycled Materials in New Construction**. The City shall encourage the use of recycled materials in new construction.
- **Policy U 5.1.15: Recycling and Reuse of Construction Wastes**. The City shall require recycling and reuse of construction wastes, including recycling materials generated by the demolition and remodeling of buildings, with the objective of diverting 85 percent to a certified recycling processor.

4.5.2 Environmental Setting

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 [a]	City of Sacramento (residential); Various private franchised haulers (commercial)
Electrical Service	Sacramento Municipal Utility District
Natural Gas	Pacific Gas & Electric Company

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

Source: Data compiled by Ascent Environmental in 2019

WATER SUPPLY

The City of Sacramento Department of Utilities is responsible for water services within the city limits, including the Gregory Bateson Building, 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 in detail 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 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. Diverted water is treated at the Fairbairn Water Treatment Plant (FWTP) or SRWTP.

Table 4.5-2 shows the City's schedule of authorized surface water supply over the next approximately 20 years.

Table 4.5-2 Maximum Contracted Annual Surface Water Diversion for the City of Sacramento [a]

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

Note: afy = acre-feet per year

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

[b] 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.

[c] 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 2016a: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. When American River flows are above a certain level (dubbed "Hodge Flow conditions" and named for the presiding judge in the deciding case), the City may divert up to 310 cfs (200 million gallons per day [mgd]) from the American River. During extremely dry years ("Conference Years"), defined by specific inflow levels to Folsom Reservoir, the City limits its diversions to the FWTP to 155 cfs (100 mgd) and 50,000 acre-feet per year (afy) (16,300 million gallons per year). Conference Years have occurred on the American River only three times over the recorded hydrologic history: in 1924, 1977, and 2015.

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 its remaining American River entitlements downstream at the SRWTP (City of Sacramento 2016:7-10 through 7-12).

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 diversion capacity at the SRWTP 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. 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 reliable treatment and permitted capacity of the FWTP is 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 affect 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 2011-2012, an average of 42 mgd of water was treated at FWTP (City of Sacramento 2014:4-21).

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 acre feet (af) (27,643 mgd) (see Table 4.5-3). Projections of future population within the City's service area and sphere of influence are based on the 2035 General Plan.

Table 4.5-3 City of Sacramento Current and Planned Annual Water Demand and Sources of Supply[a]

	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 [b]	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 [c]	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 [d]	**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

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

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

[c] 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.

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

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

Planned water supplies shown in Table 4.5-3 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 4.5-3 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 4.5-3, 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.

WASTEWATER AND STORMWATER

Wastewater and stormwater runoff from most of the central area of the city (including the project site) 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).

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 Regional San Force Main, which carries flows to SRWTP. When flows are greater than 60 mgd, the additional flows are conveyed to the Combined Wastewater Treatment Plant (CWTP) via the CWTP Force Main and/or to Pioneer Reservoir via the Pioneer Interceptor.

Because the project site is an existing building in downtown Sacramento, existing connections to CSS infrastructure are already in place. No issues related to existing wastewater and stormwater infrastructure have been reported and it is assumed that no upgrades or replacements are needed.

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

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 2014:4-2,4-9). In 2014, dry weather flows to the Regional San WWTP 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 Regional San WWTP (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 occurs during 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, captures and provides 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, before 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). A number of 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 have been completed and other projects are underway or planned as part of the City's Downtown Combined Sewers Upsizing Project to improve system operations and capacity (City of Sacramento 2018).

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 O Streets. An underground 115-kV loop connects SMUD Station D at 8th 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. The 21-kV system serves the balance of the downtown area.

The Gregory Bateson Building is currently occupied by tenants and is served by SMUD for electric services.

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, generally 4 inches in diameter and larger, carry gas at approximately 40 pounds per square inch (psi). Low-pressure system pipelines, generally 2 inches in diameter, 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 (cfh). Regulator stations at various locations are used to reduce high pressure to low pressure.

The building does not have natural gas service, and no natural gas would be provided or used directly at the building after renovation. However, the building's heating and cooling is, and would continue to be, provided by chilled water and steam from the State's Central Utility Plant, which uses natural gas to generate steam.

SOLID WASTE

The waste stream generated in the City of Sacramento is over 474,000 tons per year and includes everything from recycling to C&D material to garden refuse (CalRecycle 2017a). The City collects all residential solid waste within city boundaries. Most of the residential waste is disposed at the Sacramento County Kiefer Landfill. Commercial solid waste is collected by private franchised haulers authorized by the Sacramento Solid Waste Authority. There are seventeen different solid waste haulers that provide solid waste collection for commercial properties and businesses in Sacramento. Waste collected in the city is disposed of at various facilities including Kiefer Landfill, the Yolo County Landfill, and L and D Landfill. For the landfills that serve the city, between 68 percent and 96 percent of their respective total capacities remain (see Table 4.5-4). Each of these landfills have a substantial amount of capacity remaining: approximately 68 percent of L and D Landfill's capacity remains and 96 percent of Kiefer Landfill's capacity remains.

Table 4.5-4 Landfill Capacity

Facility	Average Amount of Waste Received per Day (tons) [a]	Daily Permitted Capacity (tons)	Maximum Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards)
L and D Landfill	444	2,540	6,031,055	4,100,000
Sacramento County Kiefer Landfill [a]	1,632	10,815	117,400,000	112,900,000
Elder Creek Transfer and Recovery Station	NA	2,500	NA	NA
North Area Transfer Station	NA	2,400	NA	NA
Sacramento Recycling and Transfer Station	NA	2,500	NA	NA

Note: NA = not applicable

[a] Calculated based on the total tons received in 2014 divided by 313 days and 365 days for L and D Landfill and Kiefer Landfill, respectively.

Source: CalRecycle 2017b, 2017c, 2017d, 2017e, 2017f

4.5.3 Environmental Impacts and Mitigation Measures

ANALYSIS METHODOLOGY

Water Demand and Wastewater

Impacts on water demand, wastewater, and associated infrastructure that would result from the project were identified by determining adequacy of existing infrastructure and comparing existing service capacity against future demand associated with project implementation. When possible, a quantitative comparison was used to determine impacts of the project on future demands. Evaluations of potential utilities impacts are based on personal communications and information pertaining to the project with DGS. Additional information was obtained through consultation with appropriate agencies and review of letters received during the scoping period.

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

The significance criteria used to evaluate project impacts on utilities and service systems under CEQA are based on Appendix G of the State CEQA Guidelines. Implementing the project would have a significant impact related to utilities and infrastructure if it would:

- require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;
- result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments;
- generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure or otherwise impair the attainment of solid waste reduction goals; or
- not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

ISSUES NOT DISCUSSED FURTHER

No natural gas is proposed to be used directly at the building and no natural gas infrastructure would be constructed for building, which would be fully electric building. However, the building's heating and cooling is, and would continue to be, provided by chilled water and steam from the State's Central Utility Plant, which uses natural gas to generate steam. The building is within the Central Plant's approved long-term loads and the project would not increase the natural gas demand to the Central Plant. Therefore, the project would have no impact on natural gas demand or infrastructure and this issue is not discussed further.

No new electrical infrastructure would be required for the project. Therefore, energy infrastructure is not discussed further in this section.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.5-1: New or Expanded Utility Infrastructure

The Gregory Bateson Building Renovation Project would include new irrigation and water supply infrastructure at the project site. Trenching to install the pipeline connection between the building and the main would occur incompliance with Best Management Practices (BMPs) set forth in the Stormwater Quality Design Manual for the Sacramento Region. No additional new or expanded infrastructure beyond those already identified for the project would be required. This impact would be **less than significant**.

The Gregory Bateson Building has existing water supply, wastewater, stormwater, and electric infrastructure in place. However, the building is in need of a new metered irrigation service line to the west of the building, a new fire-water service connection line, and reconnection to existing electric infrastructure. No issues have been reported with existing wastewater and stormwater infrastructure at the project site (Zorch pers. comm. 2019).

These improvements would be implemented as part of the renovation project, and would require trenching, installation of pipes, and associated infrastructure at the building. Trenching would occur in compliance with Best Management Practices (BMPs) set forth in the Stormwater Quality Design Manual for the Sacramento Region and the potential environmental effects of construction activities have been evaluated throughout the EIR, as they are included in the project.

Project construction could potentially interrupt utility services to existing land uses if there was inadvertent damage to existing infrastructure or the need to reroute existing lines. DGS 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 before ground disturbing activities or improvements within City rights-of-way, which would prevent the potential for damage to existing utility lines and provide adequate coordination for any required interim rerouting, thus avoiding the potential for interruption of existing utility service.

Construction of the necessary utility connections and upgrades are evaluated as part of the project throughout this EIR and no additional new or expanded infrastructure would be required. This impact is **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.5-2: Adequacy of Water Supplies

Implementation of the Gregory Bateson Building Renovation Project is estimated to result in a water demand of 7.52 afy (6,710 gpd), which would increase the overall demand on the City's water supply by 0.009 percent per year. When the renovated office building would be ready for re-occupancy in 2024, the estimated water demand would represent 0.005 percent of the City's surplus water supply (152,688 afy). The City would have adequate water supply to serve the project. Additionally, the project would reduce its water demand through implementation of water conservation measures that would exceed Title 24 requirements and meet LEED v4 Silver standards. The project's impact on water supply would be **less than significant**.

The Gregory Bateson Building receives water from the City; water usage averages 6,100 gallons per day (gpd) (Wilburn, pers comm., 2019). Implementation of the project may result in a 10 percent increase in employees at the building (96 additional employees). To account for the potential increase in building occupants, this analysis assumes a 10 percent increase over existing water demand for the building, which would be approximately 6,710 gpd (7.52 afy).

This additional water demand would represent an increase of approximately 0.009 percent in the City's overall system demand of 84,832 afy in 2015. As shown in Table 4.5-3, 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. 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 through 2040 (see Table 4.5-3). When renovations are complete and the building is reoccupied in 2024, the estimated project water demand would represent approximately 0.005 percent of the City's surplus water supply from 2020 through 2040. It is therefore assumed that project implementation would be adequately served by current and projected water supplies for the City.

The building also currently generates water demand associated with heating and cooling, which is and would continue to be provided to by the State's Central Plant. 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. Because the Gregory Bateson Building is currently served by the Central Plant, water demand associated with the office building'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 Gregory Bateson Building Renovation Project would include water conservation measures that exceed 2019 Title 24 water efficiency requirements and meet LEED v4 Silver standards. All plumbing fixtures in the building would be low-flow/high-efficiency fixtures. Landscaping would use drought tolerant native planting as another water-saving design measure of the project. Because the project would implement water efficiency measures, the estimated water demand of approximately 7.52 afy for the project is considered to be a conservative estimate. With implementation of the water-saving measures, the 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).

The City would continue to have adequate water supply to serve the Gregory Bateson Building after renovation is complete. Additionally, the project would reduce its water demand through implementation of water conservation measures that would exceed 2019 Title 24 requirements and meet LEED v4 Silver standards. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.5-3: Impacts to Wastewater Infrastructure and Treatment Capacity

Based on the project's estimated water demand, the projected wastewater discharge from the Gregory Bateson Building would be 6,710 gpd. Although the City's remaining available capacity at the Regional San WWTP would be sufficient to serve the project, the CSS and its treatment plants do not have sufficient capacity to treat wastewater and stormwater during storm events. However, exceedance of treatment capacity of the combined system is a rare event and the City is implementing the Combined Sewer System Improvement Plan to make improvements throughout the system. Because the improvement plans to the CSS are in place, the project would minimally contribute to existing CSS flows, and there is sufficient capacity to treat wastewater flows during dry weather periods, the project would result in **a less–than significant** impact on wastewater infrastructure.

Based on the potential for a 10 percent increase in occupancy at the Gregory Bateson Building (96 additional employees), water use is conservatively estimated to increase by 10 percent, resulting in an increase of approximately Therefore, the projected wastewater discharge for the renovated Bateson Building would also be 6,710 gpd (0.006 mgd) (see Impact 4.5-2, above). 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 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 before 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 storm events. However, exceedance of treatment capacity at the CWTP and Pioneer Reservoir is a rare event (once in every 10 years) and the City is implementing the Combined Sewer System Improvement Plan to make improvements throughout the system.

For these reasons, and because there is sufficient capacity to treat wastewater flows from the project during dry weather, implementation of the Gregory Bateson Building Renovation Project would not adversely affect the CSS wastewater conveyance or treatment capacity. The project's impact on wastewater infrastructure would therefore be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.5-4: Impacts to Landfills and Compliance with Solid Waste Regulations

Renovation of the Gregory Bateson Building is estimated to generate 13,000 cubic yards of debris. In accordance with Section 5.408 of the CALGreen Code, the project would implement a Construction Waste Management Plan for recycling and/or salvaging for reuse of a minimum of 65 percent of debris generated during construction. Operation of the renovated office building would result in similar waste generation as the current building. Although there may be a 10 percent increase of employees (96 new employees), the building would be required to recycle a minimum of 50 percent of the waste, as required for State operations by AB 75 and AB 939. Furthermore, there is adequate capacity at landfills in the region for disposal of solid waste generated by the project. Therefore, the project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste and this impact would be **less than significant**.

Renovation of the Gregory Bateson Building is estimated to generate 13,000 cubic yards of debris. In accordance with Section 5.408 of the CALGreen Code, the project would implement a Construction Waste Management Plan for recycling and/or salvaging for reuse of a minimum of 65 percent of C&D debris generated during project construction. Additionally, the project would also be required to meet Leadership in Energy and Environmental Design version 4 (LEED v4) requirements for waste reduction during construction. As demolition proceeds, recyclable materials would be taken to local recycling centers. After recycling and or salvaging materials, the waste would be taken to one of the nearby landfills. Operation of the renovated office building would result in similar waste generation as the current building. Although there may be a 10 percent increase of employees (96 new employees), the building would be required to recycle a minimum of 50 percent of the waste, as required for State operations by AB 75 and AB 939. Individual businesses, including State buildings and facilities, are required to contract their own solid waste collection service. Commercial solid waste haulers can dispose of the collected waste at any landfill facility or transfer station they select. Multiple landfills, including Sacramento County Kiefer Landfill, L and D Landfill, and recycling and transfer stations, are located throughout the region. The Kiefer Landfill has a remaining capacity of 112,900,000 cubic yards (96 percent of permitted capacity of 117,400,000 cubic yards) (Table 4.5-4). The L and D Landfill has a remaining capacity of 4,100,000 cubic yards (68 percent of permitted capacity of 6,031,055 cubic yards) (Table 4.5-4). There is adequate capacity at landfills in the region for disposal of solid waste generated by this project. Additionally, the project would be required to comply with applicable state and local requirements including those pertaining to solid waste, construction waste diversion, and recycling. Specifically, compliance with the City Construction and Demolition Debris Recycling Ordinance would reduce the degree to which construction waste and demolition debris would be disposed of at local/regional landfills. Therefore, the project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste and this impact is **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

4.6 AIR QUALITY

This section includes a discussion of existing air quality conditions, a summary of applicable air quality regulations, and an analysis of potential short-term and long-term air quality impacts that could result from implementation of the Gregory Bateson Building Renovation Project.

4.6.1 Regulatory Setting

Air quality in the region is regulated through the efforts of various federal, State, regional, and local government agencies. These agencies work to improve air quality through legislation, planning, policy-making, education, and a variety of other programs. The agencies responsible for improving the air quality are discussed below.

FEDERAL

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments made by Congress were in 1990.

Criteria Air Pollutants

The CAA required EPA to establish national ambient air quality standards (NAAQS) for six common air pollutants referred to as criteria air pollutants (CAPs). EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter with aerodynamic diameter of 10 micrometers or less (PM_{10}), fine particulate matter with aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead. The NAAQS are shown in Table 4.6-1. The primary standards protect public health and the secondary standards protect public welfare. The CAA also required each state to prepare a State Implementation Plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. California's SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, EPA may prepare a federal implementation plan that imposes additional control measures. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

Table 4.6-1 National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California (CAAQS)[a,b]	National (NAAQS)[c] Primary[b,d]	National (NAAQS)[c] Secondary[b,e]
Ozone	1-hour	0.09 ppm (180 µg/m^3)	–[e]	Same as primary standard
	8-hour	0.070 ppm (137 µg/m^3)	0.070 ppm (147 µg/m^3)	Same as primary standard
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	Same as primary standard
	8-hour	9 ppm[f] (10 mg/m^3)	9 ppm (10 mg/m^3)	Same as primary standard
Nitrogen dioxide (NO_2)	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	53 ppb (100 µg/m^3)	Same as primary standard
	1-hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	—
	24-hour	0.04 ppm (105 µg/m^3)	—	—
Sulfur dioxide (SO_2)	3-hour	—	—	0.5 ppm (1300 µg/m^3)
	1-hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	—

Pollutant	Averaging Time	California (CAAQS)[a,b]	National (NAAQS)[c] Primary[b,d]	National (NAAQS)[c] Secondary[b,e]
Respirable particulate matter (PM_{10})	Annual arithmetic mean	20 µg/m^3	—	Same as primary standard
	24-hour	50 µg/m^3	150 µg/m^3	Same as primary standard
Fine particulate matter ($PM_{2.5}$)	Annual arithmetic mean	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
	24-hour	—	35 µg/m^3	Same as primary standard
Lead [f]	Calendar quarter	—	1.5 µg/m^3	Same as primary standard
	30-Day average	1.5 µg/m^3	—	—
	Rolling 3-Month Average	–	0.15 µg/m^3	Same as primary standard
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m^3)	No national Standards	No national Standards
Sulfates	24-hour	25 µg/m^3	No national Standards	No national Standards
Vinyl chloride [f]	24-hour	0.01 ppm (26 µg/m^3)	No national Standards	No national Standards
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km	No national Standards	No national Standards

Notes: µg/m^3 = micrograms per cubic meter; km = kilometers; ppb = parts per billion; ppm = parts per million.

a. California standards for ozone, carbon monoxide, SO_2 (1- and 24-hour), NO_2, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

c. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. The PM_{10} 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. The $PM_{2.5}$ 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. Environmental Protection Agency for further clarification and current federal policies.

d. National primary standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

e. National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

f. The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Source: CARB 2016

Toxic Air Contaminants

Toxic air contaminants (TACs), or in federal parlance, hazardous air pollutants (HAPs), are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis or genetic damage; or short-term acute affects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants, for which acceptable levels of

exposure can be determined and for which ambient standards have been established (Table 4.6-1). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.

EPA and California Air Resources Board (CARB) regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum available control technology or best available control technology for toxics to limit emissions.

STATE

CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish California Ambient Air Quality Standards (CAAQS) (Table 4.6-1).

Criteria Air Pollutants

CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to attain and maintain the CAAQS by the earliest date practical. The CCAA specifies that local air districts should focus particular attention on reducing the emissions from stationary emission sources and provides air districts with the authority to implement indirect source and transportation control measures.

Toxic Air Contaminants

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, particulate matter (PM) exhaust from diesel engines (diesel PM) was added to CARB's list of TACs.

After a TAC is identified, CARB then adopts an airborne toxics control measure for sources that emit that particular TAC. If a safe threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate best available control technology for toxics to minimize emissions.

The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

AB 617 of 2017 aims to help protect air quality and public health in communities around industries subject to the State's cap-and-trade program for greenhouse gas (GHG) emissions. AB 617 imposes a new state-mandated local program to address non-vehicular sources (e.g., refineries, manufacturing facilities) of criteria air pollutants and TACs. AB 617 requires CARB to identify high-pollutant areas and directs air districts to focus air quality improvement efforts through adoption of community emission reduction programs within these identified areas. Currently, air districts review individual sources and impose emissions limits on emitters based on best available control technology, pollutant type, and proximity to nearby existing land uses. This bill addresses the cumulative and additive nature of air pollutant health effects by requiring community-wide air quality assessment and emission reduction planning.

CARB has adopted diesel exhaust control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Over time, the replacement of older vehicles will result in a vehicle fleet that produces

substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of CARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be 85 percent less in 2020 in comparison to year 2000 (CARB 2000). Adopted regulations are also expected to continue to reduce formaldehyde emissions emitted by cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

Sierra Club v. County of Fresno

In December 2018, the California Supreme Court issued its decision in Sierra Club v. County of Fresno (226 Cal.App.4th 704). The case reviewed the long-term, regional air quality analysis contained in the EIR for the proposed Friant Ranch development. The project is located in unincorporated Fresno County within the San Joaquin Valley Air Basin, an air basin currently in nonattainment for multiple NAAQS and CAAQS, including ozone and PM. The Court ruled that the air quality analysis failed to adequately disclose the nature and magnitude of long-term air quality impacts from emissions of criteria pollutants and precursors "in sufficient detail to enable those who did not participate in its preparation to understand and consider meaningfully the issues the proposed project raises." The Court noted that the air quality analysis did not provide a discussion of the foreseeable adverse effects of project-generated emissions on Fresno County's likelihood of exceeding the NAAQS and CAAQS for criteria air pollutants nor did it explain why it was not "scientifically possible" to determine such a connection. The Court concluded that "because the EIR as written makes it impossible for the public to translate the bare numbers provided into adverse health impacts or to understand why such translation is not possible at this time," the EIR's discussion of air quality impacts was inadequate.

LOCAL

The Gregory Bateson Building Renovation 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 DGS. 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 in its evaluation of 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.

Sacramento Metropolitan Air Quality Management District

Criteria Air Pollutants

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the primary agency responsible for planning to meet NAAQS and CAAQS in Sacramento County. SMAQMD works with other local air districts in the Sacramento region to maintain the region's portion of the SIP for ozone. The SIP is a compilation of plans and regulations that govern how the region and State will comply with the federal Clean Air Act requirements to attain and maintain the NAAQS for ozone. The Sacramento Region has been designated as a "severe" 8-hour ozone nonattainment area with an extended attainment deadline of June 15, 2019.

SMAQMD has developed a set of guidelines for use by lead agencies when preparing environmental documents. The guidelines contain thresholds of significance for criteria pollutants and TACs, and also make recommendations for conducting air quality analyses. After SMAQMD guidelines have been consulted and the air quality impacts of a project have been assessed, the lead agency's analysis undergoes a review by SMAQMD. SMAQMD submits comments and suggestions to the lead agency for incorporation into the environmental document.

Projects subject to SMAQMD jurisdiction are to comply with adopted SMAQMD rules and regulations in effect at the time of construction. Specific rules relevant to the construction of the proposed project may include the following:

- Rule 201: General Permit Requirements. Any project that includes the use of equipment capable of releasing emissions to the atmosphere may be required to obtain permit(s) from SMAQMD before equipment operation.

The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact SMAQMD early to determine whether a permit is required, and to begin the permit application process. Portable construction equipment (e.g., generators, compressors, pile drivers, lighting equipment) with an internal combustion engine greater than 50 horsepower must have a SMAQMD permit or CARB portable equipment registration.

- Rule 202: New Source Review. The purpose of this rule is to provide for the issuance of authorities to construct and permits to operate at new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.
- Rule 402: Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause or have natural tendency to cause injury or damage to business or property.
- Rule 403: Fugitive Dust. The developer or contractor is required to control dust emissions from earthmoving activities or any other construction activity to prevent airborne dust from leaving the project site.
- Rule 442: Architectural Coatings. The purpose of this rule is to limit the emissions of volatile organic compounds (VOCs) from the use of architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the District.
- Rule 902: Asbestos. The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of material containing asbestos.

In addition, if modeled construction-generated emissions for a project are not reduced to levels below SMAQMD's mass emission threshold (of 85 lb/day for nitrogen oxide (NO_X), 80 lb/day or 14.6 tons/year for PM_{10}, and 82 lb/day or 15 tons/year for $PM_{2.5}$) after the standard construction mitigation is applied, then SMAQMD recommends using an offsite construction mitigation fee to purchase offsite emissions reductions. Such purchases are made through SMAQMD's Heavy Duty Incentive Program, through which select owners of heavy-duty equipment in Sacramento County can repower or retrofit their old engines with cleaner engines or technologies.

Toxic Air Contaminants

At the local level, air districts may adopt and enforce CARB control measures for TACs. Under SMAQMD Rule 201 ("General Permit Requirements"), Rule 202 ("New Source Review"), and Rule 207 ("Federal Operating Permit"), all sources that possess the potential to emit TACs are required to obtain permits from SMAQMD. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including New Source Review standards and air toxics control measures. SMAQMD limits emissions and public exposure to TACs through a number of programs. SMAQMD prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors. Sensitive receptors are people, or facilities that generally house people (e.g., schools, hospitals, residences), that may experience adverse effects from unhealthful concentrations of air pollutants.

Odors

Although offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable stress among the public and often generating citizen complaints to local governments and SMAQMD. SMAQMD's Rule 402 (Nuisance) regulates odorous emissions.

City of Sacramento

City of Sacramento 2035 General Plan

The following policies in the Environmental Resources Element of the City of Sacramento 2035 General Plan are relevant to the analysis of air quality effects (City of Sacramento 2015).

- **Policy ER 6.1.1: Maintain Ambient Air Quality Standards.** The City shall work with the California Air Resources Board and the Sacramento Metropolitan Air Quality Management District (SMAQMD) to meet State and Federal ambient air quality standards in order to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution.
- **Policy ER 6.1.2: New Development.** The City shall review proposed development projects to ensure projects incorporate feasible measures that reduce construction and operational emissions for reactive organic gases, nitrogen oxides, and particulate matter (PM_{10} and $PM_{2.5}$) through project design.
- **Policy ER 6.1.3: Emissions Reduction.** The City shall require development projects that exceed [SMAQMD-adopted] reactive organic gas (ROG) and NO_X operational thresholds to incorporate design or operational features that reduce emissions equal to 15 percent from the level that would be produced by an unmitigated project.
- **Policy ER 6.1.4: Sensitive Uses**. The City shall coordinate with SMAQMD in evaluating exposure of sensitive receptors to toxic air contaminants and will impose appropriate conditions on projects to protect public health and safety.

4.6.2 Environmental Setting

The project site is located in the Sacramento Valley Air Basin (SVAB). The SVAB includes all of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba Counties; the western portion of Placer County; and the eastern portion of Solano County. The ambient concentrations of air pollutants are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below.

CLIMATE, METEOROLOGY, AND TOPOGRAPHY

The SVAB is a relatively flat area bordered by the north Coast Ranges to the west and the northern Sierra Nevada to the east. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento River–San Joaquin River Delta (Delta) from the San Francisco Bay area.

The Mediterranean climate type of the SVAB is characterized by hot, dry summers and cool, rainy winters. During the summer, daily temperatures range from 50 degrees Fahrenheit (°F) to more than 100°F. The inland location and surrounding mountains shelter the area from much of the ocean breezes that keep the coastal regions moderate in temperature. Most precipitation in the area results from air masses that move in from the Pacific Ocean, usually from the west or northwest, during the winter months. More than half the total annual precipitation falls during the winter rainy season (November through February); the average winter temperature is a moderate 49°F. Also characteristic of SVAB winters are periods of dense and persistent low-level fog, which are most prevalent between storms. The prevailing winds are moderate in speed and vary from moisture-laden breezes from the south to dry land flows from the north.

The mountains surrounding the SVAB create a barrier to airflow, which leads to the entrapment of air pollutants when meteorological conditions are unfavorable for transport and dilution. The highest frequency of poor air movement occurs in the fall and winter when high-pressure cells are often present over the SVAB. The lack of surface wind during these periods, combined with the reduced vertical flow caused by a decline in surface heating, reduces the influx of air and leads to the concentration of air pollutants under stable metrological conditions. Surface concentrations of air pollutant emissions are highest when these conditions occur in combination with agricultural burning activities or with temperature inversions, which hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground.

May through October is ozone season in the SVAB. This period is characterized by poor air movement in the mornings with the arrival of the Delta sea breeze from the southwest in the afternoons. In addition, longer daylight

hours provide a plentiful amount of sunlight to fuel photochemical reactions between ROG and NO_X, which result in ozone formation. Typically, the Delta breeze transports air pollutants northward out of the SVAB; however, a phenomenon known as the Schultz Eddy prevents this from occurring during approximately half of the time from July to September. The Schultz Eddy phenomenon causes the wind to shift southward and blow air pollutants back into the SVAB. This phenomenon exacerbates the concentration of air pollutant emissions in the area and contributes to the area violating the ambient air quality standards.

The local meteorology of the project site and surrounding area is represented by measurements recorded at the Western Regional Climate Center Sacramento Executive Airport Station. The normal annual precipitation is approximately 18.15 inches. January temperatures range from a normal minimum of 39.6°F to a normal maximum of 53.5°F. July temperatures range from a normal minimum of 59.7°F to a normal maximum of 91.7°F (WRCC 2016). The prevailing wind direction is from the south (WRCC 2002).

CRITERIA AIR POLLUTANTS

Concentrations of criteria air pollutants are used to indicate the quality of the ambient air. Ozone, PM_{10}, and $PM_{2.5}$ are the criteria air pollutants of primary concern in this analysis due to their nonattainment status with respect to the applicable NAAQS and/or CAAQS in the SVAB. Brief descriptions of these key criteria air pollutants in the SVAB and their health effects are provided below. Emission source types and health effects are summarized in Table 4.6-2. The attainment statuses of all criteria air pollutants with respect to the NAAQS and the CAAQS in Sacramento County are shown in Table 4.6-3. Monitoring data applicable to the project site is provided in Table 4.6-4.

Table 4.6-2 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO_2)	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis decreased lung function
Sulfur dioxide (SO_2)	coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO_2 exposure to chronic health impacts
Respirable particulate matter (PM_{10}), Fine particulate matter ($PM_{2.5}$)	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO_2 and ROG	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis
Lead	metal processing	reproductive/ developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases.

1. "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

2. "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Sources: EPA 2016

Table 4.6-3 Attainment Status Designations for Sacramento County

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Ozone	Attainment (1-hour)[1]	Nonattainment (1-hour) Classification-Serious[2]
	Nonattainment (8-hour)[3] Classification=Severe	Nonattainment (8-hour)
	Nonattainment (8-hour)[4] Classification=Severe	Nonattainment (8-hour)
Respirable particulate matter (PM_{10})	Attainment (24-hour)	Nonattainment (24-hour)
	Attainment (24-hour)	Nonattainment (Annual)
Fine particulate matter ($PM_{2.5}$)	Nonattainment (24-hour)	(No State Standard for 24-Hour)
	Attainment (Annual)	Attainment (Annual)
Carbon monoxide (CO)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (8-hour)	Attainment (8-hour)
Nitrogen dioxide (NO_2)	Unclassified/Attainment (1-hour)	Attainment (1-hour)
	Unclassified/Attainment (Annual)	Attainment (Annual)
Sulfur dioxide (SO_2)[5]	(Attainment Pending) (1-Hour)	Attainment (1-hour)
	(Attainment Pending) (1-Hour)	Attainment (24-hour)
Lead (Particulate)	Attainment (3-month rolling avg.)	Attainment (30 day average)
Hydrogen Sulfide	No Federal Standard	Unclassified (1-hour)
Sulfates		Attainment (24-hour)
Visibly Reducing Particles		Unclassified (8-hour)
Vinyl Chloride		Unclassified (24-hour)

[1] Air Quality meets federal 1-hour Ozone standard (77 FR 64036). EPA revoked this standard, but some associated requirements still apply. SMAQMD attained the standard in 2009. SMAQMD has requested EPA recognize attainment to fulfill the requirements.

[2] Per Health and Safety Code § 40921.5(c), the classification is based on 1989–1991 data, and therefore does not change.

[3] 1997 Standard.

[4] 2008 Standard.

[5] 2010 Standard.

Source: SMAQMD 2016a

Ozone

Ground-level ozone is not emitted directly into the air but is created by chemical reactions between ROG and NO_X. This happens when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, and other sources chemically react in the presence of sunlight. Ozone at ground level is a harmful air pollutant because of its effects on people and the environment and is the main ingredient in smog (EPA 2016).

Acute health effects of ozone exposure include increased respiratory and pulmonary resistance, cough, pain, shortness of breath, and lung inflammation. Chronic health effects include permeability of respiratory epithelia and possibility of permanent lung impairment (EPA 2016). Emissions of the ozone precursors ROG and NO_X have decreased over the past two decades because of more stringent motor vehicle standards and cleaner burning fuels (CARB 2014).

Nitrogen Dioxide

NO_2 is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO_2 are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO_2. The combined emissions of NO and NO_2 are referred to as NO_X and are reported as equivalent NO_2. Because NO_2

is formed and depleted by reactions associated with photochemical smog (ozone), the NO_2 concentration in a particular geographical area may not be representative of the local sources of NO_X emissions (EPA 2012).

Acute health effects of exposure to NO_X includes coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis, or pulmonary edema, breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, and death. Chronic health effects include chronic bronchitis and decreased lung function (EPA 2016).

Particulate Matter

PM_{10} is emitted directly into the air, and includes fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires and natural windblown dust, and particulate matter formed in the atmosphere by reaction of gaseous precursors (CARB 2013). $PM_{2.5}$ includes a subgroup of smaller particles that have an aerodynamic diameter of 2.5 micrometers or less. PM_{10} emissions in the SVAB are dominated by emissions from area sources, primarily fugitive dust from vehicle travel on unpaved and paved roads, farming operations, construction and demolition, and particles from residential fuel combustion. Direct emissions of PM_{10} are projected to remain relatively constant through 2035. Direct emissions of $PM_{2.5}$ have steadily declined in the SVAB between 2000 and 2010 and then are projected to increase very slightly through 2035. Emissions of $PM_{2.5}$ in the SVAB are dominated by the same sources as emissions of PM_{10} (CARB 2014).

Acute health effects of exposure to PM_{10} include breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases including asthma and chronic obstructive pulmonary disease, and premature death. Chronic health effects include alternations to the immune system and carcinogenesis (EPA 2016). For $PM_{2.5}$, short-term exposures (up to 24-hours duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. Long-term (months to years) exposure to $PM_{2.5}$ has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children.

MONITORING STATION DATA AND ATTAINMENT DESIGNATIONS

Criteria air pollutant concentrations are measured at several monitoring stations in the SVAB. The Sacramento-T Street station is the closest and most representative station to the project area with recent data for ozone, PM_{10}, and $PM_{2.5}$. Table 4.6-4 summarizes the air quality data from the most recent three years (2015–2017).

Both CARB and EPA use this type of monitoring data to designate areas according to their attainment status for criteria air pollutants (attainment designations are summarized above in Table 4.6-3).

Table 4.6-4 Summary of Annual Data on Ambient Air Quality (2015-2017)[1]

	2015	2016	2017
Ozone			
Maximum concentration (1-hr/8-hr avg, ppm)	0.092/0.076	0.094/0.074	0.107/0.077
Number of days state standard exceeded (1-hr/8-hr)	0/4	0/3	1/3
Number of days national standard exceeded (8-hr)	4	3	3
Fine Particulate Matter ($PM_{2.5}$)			
Maximum concentration (24-hour µg/m^3)	36.3	24.4	44.5
Number of days national standard exceeded (24-hour measured[2])	3	0	6.1
Respirable Particulate Matter (PM_{10})			
Maximum concentration (µg/m^3)	57.8	50.3	149.9
Number of days state standard exceeded	*	1.1	*

	2015	2016	2017
Number of days national standard exceeded	0	0	0

Notes: µg/m^3 = micrograms per cubic meter; ppm = parts per million; * = Data not available

1. Measurements from the Sacramento-T Street station for ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

2. Data was unavailable for Sacramento-T Street station. The next closest station data was used (West Sacramento-15th Street station).

Source: CARB 2019

TOXIC AIR CONTAMINANTS

According to the California Almanac of Emissions and Air Quality, health risks from TACs can largely be attributed to relatively few compounds, the most important being diesel PM (CARB 2014:5-2 to 5-4). Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. Unlike the other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. However, CARB has made preliminary concentration estimates based on a PM exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

Diesel PM poses the greatest health risk among these 10 TACs mentioned. Based on receptor modeling techniques, CARB estimated its health risk to be 360 excess cancer cases per million people in the SVAB in the year 2000 (CARB 2009:5-83). Overall, statewide emissions of diesel PM are forecasted to decline by 71 percent between 2000 and 2035 (CARB 2009:3-8).

ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person may be perfectly acceptable to another (e.g., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Odor sources of concern include wastewater treatment plants, sanitary landfills, composting facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting operations, rendering plants, and food packaging plants (SMAQMD 2016c). None of these odorous land uses lie within two-miles of the project site.

SENSITIVE RECEPTORS

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants.

The closest sensitive receptors are the Franklin D. Roosevelt Park and The Capital Athletic Club approximately 80 feet east and north of the project site, respectively. Other nearby sensitive receptors include the Saratoga Townhomes approximately 140 feet to the southeast, Rainbow Daycare approximately 450 feet northeast, residences 480 feet to the east between P Street and Q Street, Capital Tower residences 500 feet to the northwest, residences approximately 570 feet to the southwest between Quill Alley and R Street, Governor's Square residences 910 to the west, and Pioneer Towers residences to the northwest.

4.6.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Regional and local criteria air pollutant emissions and associated impacts, as well as impacts from TACs, CO concentrations, and odors were assessed in accordance with SMAQMD-recommended methodologies. The project's emissions are compared to SMAQMD-adopted thresholds.

Construction and operational emissions of criteria air pollutants and precursors were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program (CAPCOA 2016), as recommended by SMAQMD. Modeling was based on project-specific information (e.g., building square footage, hauling trips) where available, reasonable assumptions based on typical construction activities, and default values in CalEEMod that are based on the project's location and land use type.

Construction for the project is anticipated to begin in December 2020 and projected out over a three-year time frame based on CalEEMod defaults. A demolition phase of the project would involve hazardous material abatement and the removal and hauling of existing material off-site. A building modernization phase would include utility upgrades and interior and exterior renovations with the hauling of building materials to the project site. Following demolition and building modernization, an architectural coating phase would occur. Construction equipment and vendor trips were based on CalEEMod defaults, while worker trips and hauling trips were estimated based on project-specific information. Table 4.6-5 shows the assumed construction activities, their duration, and equipment mix.

Table 4.6-5 Construction Activities, Phasing, and Equipment

Activity	Duration (Days)	Equipment
Demolition	68	1 concrete/industrial saw; 1 rubber-tired dozers; 3 tractors/loaders/backhoes
Building Modernization	682	1 crane; 1 forklift; 1 generator set; 1 tractors/loaders/backhoes; 1 welder
Architectural Coating	34	1 air compressor

[1] Based on CalEEMod defaults projected over 3 years.

Operational analysis of the project assumed 960 existing employees with an additional 10 percent increase for a total of 1,056 employees. Although the project is not intended to result in any increase in employees, a 10 percent increase allows for a conservative estimate of operational emissions. The assessment of mobile source emissions addresses the associated increase in trips attributed to the 96 additional employees as they would be a source of new net vehicle activity in the downtown/Central City Specific Plan area. Additional operational sectors, including energy and area sources, also account for the new demand or generation from the associated increase in 96 additional employees. Specific model assumptions and inputs for these calculations can be found in Appendix D.

CO impacts were assessed qualitatively, using the screening criteria set forth by SMAQMD and results from the project-specific traffic study. The level of health risk from exposure to construction- and operation-related TAC emissions was assessed qualitatively. This assessment was based on the proximity of TAC-generating construction activity to off-site sensitive receptors, the number and types of diesel-powered construction equipment being used, and the duration of potential TAC exposure. An operational-related TAC exposure assessment was based on the project siting any new sources of TAC-generated activities to off-site receptors.

THRESHOLDS OF SIGNIFICANCE

The significance criteria used to evaluate project impacts on air quality under CEQA are based on Appendix G of the State CEQA Guidelines and thresholds of significance adopted by SMAQMD. The District's air quality thresholds of significance are tied to achieving or maintaining attainment designations with the NAAQS and CAAQS, which are scientifically substantiated, numerical concentrations of criteria air pollutants considered to be protective of human health. Implementing the project would have a significant impact related to air quality such that human health would be adversely affected if it would:

- cause construction-generated criteria air pollutant or precursor emissions to exceed the SMAQMD-recommended thresholds of 85 lb/day for NO_X, 80 lb/day or14.6 tons/year for PM_{10}, and 82 lb/day or 15 tons/year for $PM_{2.5}$ (SMAQMD 2015) once SMAQMD's Basic Construction Emission Control Practices have been implemented;
- result in a net increase in long-term operational criteria air pollutant or precursor emissions that exceed the SMAQMD-recommended thresholds of 65 lb/day for ROG and NO_X, 80 lb/day and 14.6 tons/year for PM_{10}, and 82 lb/day or 15 tons/year for $PM_{2.5}$ (SMAQMD 2015);
- result in long-term operational local mobile-source CO emissions that would violate or contribute substantially to concentrations that exceed the 1-hour CAAQS of 20 parts per million (ppm) or the 8-hour CAAQS of 9 ppm (SMAQMD 2015);
- expose sensitive receptors to a substantial incremental increase in TAC emissions that exceed 10 in one million for carcinogenic risk (i.e., the risk of contracting cancer) and/or a noncarcinogenic hazard index of 1.0 or greater (SMAQMD 2015); or
- result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

ISSUES NOT DISCUSSED FURTHER

Construction-related activities would not introduce new odor sources surrounding the project site. Although minor odors may be generated from the use of heavy-duty diesel trucks during construction and the hauling of material to and from the project site, the activities would be intermittent and temporary and would not affect sensitive receptors. Operation of the office building would be similar to the existing office uses and would not generate objectionable odors. Therefore, the project's potential to expose a substantial number of people to objectionable odors from both construction and operation is not discussed further in this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.6-1: Construction Emissions of Criteria Air Pollutants and Precursors (ROG, NO_X, PM_{10}, and $PM_{2.5}$)

Construction of the project would result in project-generated emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from demolition, material and equipment delivery trips, worker commute trips, and other miscellaneous activities (e.g., application of architectural coatings). However, construction activities would not result in emissions of ROG, NO_X, PM_{10}, or $PM_{2.5}$ that would exceed SMAQMD-recommended thresholds. Therefore, construction-generated emissions of criteria air pollutants or precursors would not contribute substantially to the nonattainment status of the SVAB with respect to the CAAQS and NAAQS for ozone, CAAQS PM_{10}, or the NAAQS for $PM_{2.5}$. This impact would be **less than significant**.

Construction-related activities would generate emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ associated with demolition, off-road equipment, material delivery, worker commute trips, and other miscellaneous activities (e.g., application of architectural coatings). Fugitive dust emissions of PM_{10} and $PM_{2.5}$ would be associated primarily with demolition and vary as a function of soil silt content, soil moisture, wind speed, and acreage of disturbance. PM_{10} and $PM_{2.5}$ are also contained in exhaust from off-road equipment and on-road vehicles. Emissions of ozone precursors, ROG and NO_X,

would be associated primarily with construction equipment and on-road mobile exhaust. The application of architectural coatings result in off-gas emissions of ROG.

Construction activities are anticipated to begin December 2020 and last approximately three years. Table 4.6-5 shows the assumed construction activities, their duration, and equipment mix. For specific construction assumptions and modeling inputs, refer to Appendix D.

Table 4.6-6 summarizes the modeled maximum daily emissions from construction activities over the estimated three-year construction period. As shown in Table 4.6-6, Daily emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ and annual emissions of PM_{10} and $PM_{2.5}$ would not exceed the respective thresholds.

The District's project thresholds are intended to maintain or achieve attainment designations in the SVAB with respect to the CAAQS and NAAQS. If the project does not exceed the District's thresholds and does not contribute to nonattainment designations, it would not exacerbate or interfere with the region's ability to attain the health-based standards (SMAQMD 2019). Furthermore, the lack of exposure of criteria air pollutants that may exceed the NAAQS and CAAQS would avoid health impacts. Because the project's construction phase emissions would be below SMAQMD's recommended thresholds, they would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Because the ambient air quality standards are established to be protective of public health, adverse health impacts to receptors are not anticipated due to the project's emissions being below SMAQMD's thresholds. This impact would be **less than significant.**

Mitigation Measures

No mitigation is required for this impact.

Table 4.6-6 Summary of Maximum Emissions of Criteria Air Pollutants and Precursors Associated with Project Construction

Construction Phase	ROG lb/day	NO_X lb/day	PM_{10} lb/day (fugitive/exhaust/total)	PM_{10} tons/year (fugitive/exhaust/total)	$PM_{2.5}$ lb/day (fugitive/exhaust/total)	$PM_{2.5}$ tons/year (fugitive/exhaust/total)
Demolition	3	30	8/1/9	2/1/2	2/1/3	<1/<1/<1
Building Modernization	3	20	2/1/3	<1/<1/<1	1/1/1	<1/<1/<1
Architectural Coating	80	2	1/<1/2	<1/<1/<1	<1/<1/<1	<1/<1/<1
SMAQMD Threshold of Significance	None	85	–/–/80	–/–/14.6	–/–/82	–/–/15

Notes: ROG = reactive organic gases; lb/day = pounds per day; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with aerodynamic diameter of 2.5 micrometers or less; SMAQMD = Sacramento Metropolitan Air Quality Management District.

Maximum emissions include the District's Basic Construction Emission Control Practices (Best Management Practices) under Rule 403.

Total values may not sum exactly due to rounding. See Appendix D for detailed input parameters and modeling results.

Source: Modeling performed by Ascent Environmental in 2019

Impact 4.6-2: Long-Term Operational Emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$

Although project operations would result in the generation of long-term operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$, the emissions would not exceed SMAQMD's thresholds of significance (65 lb/day for ROG, 65 lb/day for NO_X, 80 lb/day for PM_{10}, and 82 lb/day for $PM_{2.5}$). Therefore, operational emissions would not conflict with the air quality planning efforts or contribute substantially to the nonattainment status of the SVAB with respect to the CAAQS and NAAQS for ozone, CAAQS PM_{10}, or the NAAQS for $PM_{2.5}$. This impact would be **less than significant**.

Project operations would result in the generation of long-term operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$. Mobile-source emissions of criteria air pollutants and precursors would result from vehicle trips to and from the project site by employees and visitors, as well as delivery and maintenance vehicles. Table 4.4-9 in Section 4.4 "Transportation and Circulation," shows the estimated 183 additional vehicle trips that would be generated by the

project. Based on the project's additional vehicle trips and the estimated vehicle miles traveled (VMT) per employee from the Central City Specific Plan EIR (Table 4.12-8, City of Sacramento 2018), it is estimated that the project would generate an additional 2,096 daily VMT above existing use, with trips generally distributed to the surrounding roadway network based on existing travel patterns in the area and locations of nearby complementary land uses (e.g., residences, schools, commercial retail, places of employment) (Appendix D).

The renovated building would have no direct use of natural gas and electricity would be offset by 100 percent offsite renewable energy sources. Therefore, no energy-related emissions would be associated with the project. In addition to mobile sources, operational source emissions would include landscape maintenance equipment such as mowers and leaf blowers; regular testing of an emergency backup generator; the application of architectural coatings, as part of regular maintenance; and the use of various consumer produce such as cleaning chemicals that would also generate emissions of ROG. Installation of a 1,000 kilowatt emergency backup generator would require periodic testing and would only be used in the event of an emergency. According to the District's Rule 201, the project would be required to obtain an Authority to Construct and Permit to Operate before installing the new generator to ensure that the District's regulations are met, and air emissions are not exceeded.

Table 4.6-7 summarizes the maximum daily operational-related emissions of criteria air pollutants and, as well as annual emissions of PM_{10} and $PM_{2.5}$, at full buildout. Emissions were calculated based on the proposed land use type and trip lengths to match project-specific VMT (Appendix D). As shown in Table 4.6-7, daily emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ and annual emissions of PM_{10} and $PM_{2.5}$ would not exceed the respective thresholds.

The District's project thresholds are intended to maintain or achieve attainment designations in the SVAB with respect to the CAAQS and NAAQS. If the project does not exceed the District's thresholds and does not contribute to nonattainment designations, it would not exacerbate or interfere with the region's ability to attain the health-based standards (SMAQMD 2019). Furthermore, the lack of exposure of criteria air pollutants that may exceed the NAAQS and CAAQS would avoid health impacts. Because the project's operational emissions would be below SMAQMD's recommended thresholds, they would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Because the ambient air quality standards are established to be protective of public health, adverse health impacts to receptors are not anticipated due to the project's emissions being below SMAQMD's thresholds. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Table 4.6-7 Summary of Maximum Operational Emissions of Criteria Air Pollutants and Precursors at Full Buildout (2021)

Emissions Source	Maximum Daily Emissions ROG (lb/day)	Maximum Daily Emissions NO_X (lb/day)	Maximum Daily Emissions PM_{10} (lb/day)	Maximum Daily Emissions PM_{10} (tons/year)	Maximum Daily Emissions $PM_{2.5}$ (lb/day)	Maximum Daily Emissions $PM_{2.5}$ (tons/year)
Area Sources	7	<1	<1	<1	<1	<1
Vehicle Trips (Mobile Sources)	6	15	2	<1	<1	<1
Total Emissions	13	15	2	<1	<1	<1
SMAQMD Threshold of Significance	65	65	80	14.6	82	15

Notes: ROG = reactive organic gases; lb/day = pounds per day; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; SMAQMD = Sacramento Metropolitan Air Quality Management District.

Operational emissions from emergency generator is excluded from table due to <1 emissions. Total values may not sum exactly due to rounding. See Appendix D for detailed input parameters and modeling results.

Source: Modeling performed by Ascent Environmental in 2019

Impact 4.6-3: Mobile-Source CO Concentrations

Long-term operational mobile-source emissions of CO generated by the implementation of the project would not result in localized concentrations of source CO emissions that would violate or contribute substantially to exceedances of the 1-hour CAAQS of 20 ppm or the 8-hour CAAQS of 9 ppm. Therefore, project operation would not expose sensitive receptors to substantial concentrations of CO. As a result, this impact would be **less than significant**.

Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, speed, and delay. Transport of CO is extremely limited because it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain meteorological conditions, CO concentrations near roadways and/or intersections may increase to unhealthy levels at nearby sensitive land uses, such as residential units, hospitals, schools, and child care facilities. As a result, SMAQMD recommends that CO not be analyzed at the regional level, but at the local level.

Based on the project's estimated 183 additional vehicle trips and the estimated daily VMT per employee from the Central City Specific Plan EIR (Table 4.12-8, City of Sacramento 2018), it is estimated that at complete buildout, the project would generate up to 2,095 new daily VMT (Appendix D).

SMAQMD recommends a screening methodology to determine whether CO emissions generated by traffic at congested intersections have the potential to exceed, or contribute to an exceedance of, the 8-hour CAAQS of 9.0 ppm or the 1-hour CAAQS of 20.0 ppm. The screening methodology consists of two tiers of screening criteria. If the first set is not met, then the second tier may be applied. It states that the following criteria must be met (SMAQMD 2016d:4-8):

First-Tier

A project would result in a less-than-significant impact to air quality for local CO if:

- Traffic generated by the project would not result in deterioration of intersection level of service (LOS) to LOS E or F; and
- The project would not contribute additional traffic to an intersection that already operates at LOS E or F.

Second-Tier

If all the following criteria are met, a project would result in a less-than-significant impact to air quality for local CO.

- The project would not result in an affected intersection experiencing more than 31,600 vehicles per hour;
- The project would not contribute traffic to a tunnel, parking garage, bridge underpass, urban street canyon, or below-grade roadway; or other locations where horizontal or vertical mixing of air will be substantially limited; and
- The mix of vehicle types at the intersection is not anticipated to be substantially different from the County average (as identified by CalEEMod model).

Based on the traffic study conducted for the project (see Section 4.4, "Transportation and Circulation"), the addition of project-generated traffic to existing conditions (i.e., existing-plus-project conditions) would not result in the downgrading of a project-affected intersection to LOS level E or F. All intersections would continue to operate at a LOS C or better, except for Intersection 18 (W Street/16th Street/US 50 Westbound Off-Ramp) and Intersection 19 (X Street/15th Street/US 50 EB Off-Ramp), which would operate at LOS D. Refer to Section 4.4, "Transportation and Circulation" for details on the traffic intersection analysis. Because the traffic generated by the project would not result in deterioration of any intersection to LOS E or F, based on the SMAQMD CO screening methodology, operation-related local mobile-source emissions of CO would not result in a violation or contribute substantially to concentrations that exceed the 1-hour CAAQS of 20 ppm or the 8-hour CAAQS of 9 ppm. Therefore, the project would not contribute substantially to an existing or projected air quality violation or expose sensitive receptors to substantial CO concentrations. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.6-4: Exposure of Sensitive Receptors to TACs

Construction- and operations-related emissions of TACs associated with the implementation of the project would not result an incremental increase in cancer risk greater than 10 in one million or a hazard index greater than 1.0 at existing or future sensitive receptors. Therefore, this impact would be **less than significant**.

Particulate exhaust emissions from diesel-fueled engines (i.e., diesel PM) were identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of diesel PM, as discussed above in Section 3.6.2, "Environmental Setting," outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2003:K-1). With regards to exposure of diesel PM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher level of health risk for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period. According to the Office of Environmental Health Hazard Assessment, when a Health Risk Assessment is prepared to project the results of exposure of sensitive receptors to selected compounds, exposure of sensitive receptors to TAC emissions should be based on a 70- or 30-year exposure period; however, such assessments should be limited to the duration of activities associated with the proposed project if emissions occur for shorter periods (OEHHA 2015:5-23, 5-24).

The TAC that is the focus of this analysis is diesel PM because it is known that diesel PM would be emitted during project construction and operation. Although other TACs exist (e.g., benzene, 1,3-butadiene, hexavalent chromium, formaldehyde, methylene chloride), they are primarily associated with industrial operations and the project site would not include any industrial sources of other TACs. Operation of the Bateson Building would not result in new sources of TACs, therefore, the operation of the project has no impact. Construction-related activities that would result in temporary, intermittent emissions of diesel PM would be from the exhaust of off-road equipment used during demolition and building modernization and on-road heavy-duty trucks. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they do not operate at any one location for extended periods of time such that they would expose a single receptor to excessive diesel PM emissions.

As noted above, diesel PM is the primary pollutant of concern for this analysis. Based on the construction-related emissions modeling conducted and presented in Table 4.6-4, above, maximum daily emissions of diesel exhaust PM_{10}, considered a surrogate for diesel PM, would not exceed 1 lb/ during the building modernization phase, which would last for the longest duration of approximately 682 days. A portion of these emissions would be due to haul trucks traveling and to and from the site and would not occur on the project site. This is below the SMAQMD-recommended threshold of 80 lb/day. In addition, all construction activities would occur during daytime hours, which is when many residents who are employed or are students typically are not home, thus limiting exposure from construction-related emissions to these receptors.

Therefore, considering the relatively low mass of diesel PM emissions that would be generated by construction activity on the project site, the relatively short duration of diesel PM-emitting construction activity at the project site, and the highly dispersive properties of diesel PM, construction-related TAC emissions would not expose sensitive receptors to an incremental increase in cancer risk greater than 10 in 1 million or a hazard index greater than 1.0. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

4.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

This section presents a summary of the current state of climate change science and greenhouse gas (GHG) emissions sources in California; a summary of applicable regulations; quantification of project-generated GHG emissions and discussion about their potential contribution to global climate change; and analysis of the project's resiliency to climate change-related risks.

For the purposes of this analysis, GHG emissions are measured as metric tons of carbon dioxide equivalent ($MTCO_2e$). A GHG is determined as its atmospheric impact standardized to one-unit mass of carbon dioxide (CO_2), based on the global warming potential (GWP) of that gas. GWP is defined as the ability of one unit of gas emitted to trap heat in the atmosphere over a certain timeframe (EPA 2014).

4.7.1 Regulatory Setting

FEDERAL

In *Massachusetts et al. v. Environmental Protection Agency et al.,* 549 U.S. 497 (2007), the Supreme Court of the United States ruled that carbon dioxide (CO_2) is an air pollutant as defined under the federal Clean Air Act and that the U.S. Environmental Protection Agency (EPA) has the authority to regulate GHG emissions.

In 2010, EPA started to address GHG emissions from stationary sources through its New Source Review permitting program, including operating permits for "major sources" issued under Title V of the federal Clean Air Act.

In October 2012, EPA and the National Highway Traffic Safety Administration, on behalf of the Department of Transportation, issued final rules to further reduce GHG emissions and improve corporate average fuel economy standards for light-duty vehicles for model years 2017 and beyond (77 FR 62624). These rules would increase fuel economy to the equivalent of 54.5 miles per gallon limiting vehicle emissions to 163 grams of CO_2 per mile for the fleet of cars and light-duty trucks by model year 2025 (77 FR 62630).However, on April 2, 2018, the EPA Administrator and Department of Transportation announced a final determination that the current standards are not appropriate and should be revised. It is not yet known when these revisions are anticipated to occur (EPA 2018).

In June 2019, the EPA, under authority of the Clean Air Act section 111(d), issued the Affordable Clean Energy (ACE) rule which provides guidance to states on establishing emissions performance standards for coal-fired electric generating units (EGUs). Under this rule, states are required to submit plans to the EPA which demonstrate the use of specifically listed retrofit technologies and operating practices to achieve CO_2 emission reductions through heat rate improvement (HRI). HRI is a measurement of power plant efficiency that EPA determined as part of this rulemaking to be the best system of emission reductions for CO_2 generated from coal-fired EGUs (EPA 2019).

STATE

Statewide GHG Emission Targets and Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the state government for approximately two decades (State of California 2018). GHG emission targets established by the state legislature including reducing statewide GHG emissions to 1990 levels by 2020 (AB 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (SB 32 of 2016). Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. Executive Order B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets are in line with the scientifically established levels needed in the U.S. to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (United Nations 2015:3).

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by the California Air Resources Board (CARB), outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017: 1, 3, 5, 25–26). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). CARB and other State agencies are currently developing a National and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal of Executive Order B-55-18.

The State has also passed more detailed legislation addressing GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption, as summarized below.

Cap-and-Trade Program

CARB administers the State's Cap-and-Trade program, which covers GHG emissions source that emit more than 25,000 metric tons of carbon dioxide equivalent ($MTCO_2e$), such as refineries, power plants, and industrial facilities. This market-based approach to reducing GHG emissions provides economic incentives for achieving GHG emission reductions.

Transportation-Related Standards and Regulations

As part of its Advanced Clean Cars program, CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel–powered on-road vehicles. In addition, the program's zero-emission vehicle (ZEV) regulation requires battery, fuel cell, and plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025 (CARB 2016a:15). By 2025, when the rules will be fully implemented, GHG emission from the statewide fleet of new cars and light-duty trucks will be reduced by 34 percent and cars will emit 75 percent less smog-forming pollution than the statewide fleet in 2016 (CARB 2016b:1).

Executive Order B-48-18, signed into law in January 2018, requires all state entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as 200 hydrogen fueling stations and 250,000 electric vehicle–charging stations installed by 2025. It specifies that 10,000 of these charging stations must be direct-current fast chargers.

CARB adopted the Low Carbon Fuel Standard (LCFS) in 2007 to reduce the carbon intensity of California's transportation fuels. The LCFS applies to fuels used by on-road motor vehicles and off-road vehicles, including construction equipment (Wade, pers. comm., 2017).

In addition to regulations that address tailpipe emissions and transportation fuels, the state legislature has passed regulations to address the amount of driving by on-road vehicles. Since passage of SB 375 in 2008, CARB requires metropolitan planning organizations (MPOs) to adopt plans showing reductions in GHG emissions from passenger cars and light-duty trucks in their respective regions for 2020 and 2035 (CARB 2018a:1). These plans link land use and housing allocation to transportation planning and related mobile-source emissions. The Sacramento Area Council of Governments (SACOG) serves as the MPO for Sacramento, Placer, El Dorado, Yuba, Sutter, and Yolo Counties, excluding those lands located in the Lake Tahoe Basin. SACOG adopted it Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) 2035 in 2012, and completed an update adopted in February 2016. SACOG was tasked by CARB to achieve a 7 percent per capita reduction compared to 2012 emissions by 2020 and a 16 percent per capita reduction by 2035, which CARB confirmed the region would achieve by implementing its MTP/SCS (CARB 2013). In March 2018, CARB adopted the Target Update for the SB 375 targets, tasking SACOG to achieve a 7 percent and a 19 percent per capita reduction by 2020 and 2035, respectively (CARB 2018a).

SB 743 of 2013 required that the Governor's Office of Planning and Research (OPR) propose changes to the State CEQA Guidelines to address transportation impacts in transit priority areas and other areas of the state. In response, Section 15064.3 was added to CEQA in December 2018, requiring that transportation impacts no longer consider congestion but instead focus on the impacts of vehicle miles traveled (VMT). Agencies have until July 1, 2020 to implement these changes, but can also choose to implement these changes immediately. In support of these changes, OPR published its *Technical Advisory on Evaluating Transportation Impacts in CEQA,* which recommends that the transportation impact of a project be based on whether the project would generate a level of VMT per capita (or

VMT per employee or some other metric) that is 15 percent lower than that of existing development in the region (OPR 2017:12–13), or that a different threshold is used based on substantial evidence. OPR's technical advisory explains that this criterion is consistent with PRC Section 21099, which states that the criteria for determining significance must "promote the reduction in greenhouse gas emission" (OPR 2017:18). This metric is intended to replace the use of delay and level of service to measure transportation-relate impacts. More detail about SB 743 is provided in the "Regulatory Setting" section of Section 4.4, "Transportation and Circulation."

Legislation Associated with Electricity Generation

The State has passed legislation requiring the increasing use of renewables to produce electricity for consumers. California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011); 52 percent by 2027 (SB 100 of 2018); 60 percent by 2030 (also SB 100 of 2018); and 100 percent by 2045 (also SB 100 of 2018).

Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the State's CCR Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Commission (CEC) updates the California Energy Code every three years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. The current California Energy code will require builders to use more energy-efficient building technologies for compliance with increased restrictions on allowable energy use. The CEC estimates that the 2019 California Energy Code will result in new commercial buildings that use 30 percent less energy than those designed to meet the 2016 standards, primarily through the transition to high-efficacy lighting (CEC 2018).

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of in landfills, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to State agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally-safe transformation and land disposal. Per capita disposal rates for the City of Sacramento are below the target disposal rates established by AB 939 (CalRecycle 2017).

In 2011, AB 341 modified the California Integrated Waste Management Act and directed the California Department of Resources Recycling and Recovery to develop and adopt regulations for mandatory commercial recycling. The resulting Mandatory Commercial Recycling Regulation (2012) requires that on and after July 1, 2012, certain businesses that generate four cubic yards or more of commercial solid waste per week shall arrange recycling services. To comply with this requirement, businesses may either separate recyclables and self-haul them or subscribe to a recycling service that includes mixed waste processing. AB 341 also established a statewide recycling goal of 75 percent; the 50 percent disposal reduction mandate still applies for cities and counties under AB 939, the Integrated Waste Management Act. Waste management and recycling reduces emissions generated from the decomposition of waste in landfills.

Executive Order B-18-12

In April 2012, Executive Order B-18-12 was signed into law and requires State agencies to implement green building practices to improve energy, water and materials efficiency, improve air quality and working conditions for State employees, reduce costs to the State and reduce environmental impacts from State operations. Among other actions, EO B-18-12 requires State agencies to reduce agency-wide water use by 10 percent by 2015 and 20 percent by 2020, as measured against a 2010 baseline. The Executive Order directs that new State buildings larger than 10,000 square feet use clean, on-site power generation and obtain the U.S. Green Building Council's Leadership in Energy and Environmental (LEED) Silver certification. Further, EO B-18-12 states that all new State buildings beginning design after 2025 be constructed as Zero Net Energy (ZNE) facilities, with an interim target of 50 percent of new facilities beginning design after 2020 to be ZNE. The Executive Order also calls for State agencies to identify and pursue

opportunities to provide electric vehicle charging stations at employee parking facilities in new buildings. The Executive Order also calls for State agencies to reduce overall water use at facilities from a 2010 baseline by 10 percent by 2015 and 20 percent by 2020.

LOCAL

The Gregory Bateson Building Renovation 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 DGS. 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 in its evaluation of 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.

Sacramento Metropolitan Air Quality Management District

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the primary agency responsible for addressing air quality concerns in all of Sacramento County—its role is discussed further in Section 4.6, "Air Quality." SMAQMD also recommends methods for analyzing project-generated GHGs in CEQA analyses and offers multiple potential GHG reduction measures for land use development projects. SMAQMD developed thresholds of significance to provide a uniform scale to measure the significance of GHG emissions from land use and stationary source projects in compliance with CEQA (SMAQMD 2016). SMAQMD's goals in developing GHG thresholds include ease of implementation; use of standard analysis tools; and emissions mitigation consistent with the statewide GHG targets mandated by AB 32 of 2006. However, since the establishment of new statewide GHG target of 40 percent below 1990 levels by 2030 with passage of SB 32 in 2016, SMAQMD has not developed new thresholds that align with this statewide GHG target.

City of Sacramento

City of Sacramento 2035 General Plan

The City of Sacramento 2035 General Plan includes the following policies related to reducing GHG emissions in Sacramento (City of Sacramento 2015).

- **Policy ER 6.1.5:** The City shall reduce community GHG emissions by 15 percent below 2005 baseline levels by 2020, and strive to reduce community emissions by 49 percent and 83 percent by 2035 and 2050, respectively.
- **Policy ER 6.1.7:** The City shall reduce GHG emissions from new development by discouraging auto-dependent sprawl and dependence on the private automobile; promoting water conservation and recycling; promoting development that is compact, mixed use, pedestrian friendly, and transit oriented; promoting energy-efficient building design and site planning; improving the job/housing ratio in each community; and other methods of reducing emissions.

Sacramento Climate Action Plan

The Sacramento Climate Action Plan (CAP) was adopted on February 14, 2012 by the Sacramento City Council and was incorporated into the 2035 General Plan. The CAP includes GHG emission targets, strategies, and implementation measures to help the city reach these targets. Reduction strategies address GHG emissions associated with transportation and land use; energy consumption; water use; waste management and recycling; agriculture; and open space. The City's goals related to transportation and energy use are described below.

- Improve accessibility and system connectivity by removing physical and operational barriers to safe travel.
- Reduce reliance on the private automobile.
- Use emerging transportation technologies and services to increase transportation system efficiency.
- Design, construct, and maintain a universally accessible, safe, convenient, integrated and well-connected pedestrian system that promotes walking.

- Create and maintain a safe, comprehensive, and integrated transit system as an essential component of a multimodal transportation system.
- Support the development and provision of privately funded and/or privately-operated transit services that support citywide and regional goals by reducing single-occupant vehicle (SOV) trips, vehicle miles traveled and GHG emissions.
- The City and other agencies with jurisdiction over roadways within City limits shall plan, design, operate and maintain all streets and roadways to accommodate and promote safe and convenient travel for all users—pedestrians, bicyclists, transit riders, and persons of all abilities, as well as freight and motor vehicle drivers.
- Enhance the quality of life within existing neighborhoods through the use of neighborhood traffic management and traffic calming techniques, while recognizing the City's desire to provide a grid system that creates a high level of connectivity.
- Maintain an interconnected system of streets that allows travel on multiple routes by multiple modes, balancing access, mobility and place-making functions with sensitivity to the existing and planned land use context of each corridor and major street segment.
- Create and maintain a safe, comprehensive, and integrated bicycle system and set of support facilities throughout the city that encourage bicycling that is accessible to all. Provide bicycle facilities, programs and services and implement other transportation and land use policies as necessary to achieve the City's bicycle mode share goal as documented in the Bicycle Master Plan.
- Provide and manage parking such that it balances the citywide goal of economic development, livable neighborhoods, sustainability, and public safety with the compact multi-modal urban environment prescribed by the General Plan.
- Provide for the energy needs of the city and decrease dependence on nonrenewable energy sources through energy conservation, efficiency, and renewable resource strategies.

4.7.2 Environmental Setting

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

The Physical Scientific Basis

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane, nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcing (IPCC 2014:5).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality

effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the lifetime of any particular GHG molecule is dependent on multiple variables and cannot be determined with any certainty, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO_2 emissions, approximately 55 percent is estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains stored in the atmosphere (IPCC 2013:467).

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

GREENHOUSE GAS EMISSION SOURCES

As discussed previously, GHG emissions are attributable in large part to human activities. The total GHG inventory for California in 2016 was 429 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) (CARB 2018b). This is less than the 2020 target of 431 $MMTCO_2e$ (CARB 2018c:1). Table 4.7-1 summarizes the 2016 statewide GHG inventory for California.

Table 4.7-1 Statewide GHG Emissions by Economic Sector

Sector	Emissions ($MMTCO_2e$)	Percent
Transportation	174.01	41
Industrial	100.37	23
Electricity generation (in state)	42.67	10
Electricity generation (imports)	26.28	6
Agriculture	33.84	8
Residential	28.34	7
Commercial	23.04	5
Not specified	0.79	<1

Source: CARB 2018b, CARB 2018d

As shown in Table 4.7-1, transportation, industry, and electricity generation are the largest GHG emission sectors.

Emissions of CO_2 are byproducts of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Nitrous oxide is also largely attributable to agricultural practices and soil management. CO_2 sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water), respectively, two of the most common processes for removing CO_2 from the atmosphere.

A GHG inventory for the City of Sacramento is provided in the City's CAP and summarized in Table 4.7-2.

Table 4.7-2 City of Sacramento Greenhouse Gas Emissions Inventory for 2005 and Building-as-Usual Forecast Years

Emissions Sector	2005 ($MTCO_2e$)	2020 ($MTCO_2e$)	2030 ($MTCO_2e$)	2040 ($MTCO_2e$)
Residential Energy Use	748,792	993,900	1,157,307	1,484,125
Commercial/Industrial Energy Use	979,777	1,243,593	1,419,470	1,771,224

Emissions Sector	2005 ($MTCO_2e$)	2020 ($MTCO_2e$)	2030 ($MTCO_2e$)	2040 ($MTCO_2e$)
Industrial Specific	28,656	32,789	35,544	41,054
On-Road Transportation	2,013,962	2,193,916	2,313,886	2,553,825
Off-Road Transportation	192,768	244,673	279,276	348,483
Solid Waste	241,862	285,143	313,248	378,605
Water Consumption	12,810	15,757	17,928	21,724
Wastewater Treatment	57,380	70,579	80,306	97,307
Agriculture	2,054	2,087	2,198	2,596
Total	**4,443,977**	**5,286,520**	**5,851,370**	**6,980,309**

Notes: Totals may not add due to rounding.

$MTCO_2e$ = metric tons of carbon dioxide equivalent

Sources: City of Sacramento 2012

As shown in Table 4.7-2, on-road transportation and residential and non-residential energy use are the largest GHG emission sectors for the City.

EFFECTS OF CLIMATE CHANGE ON THE ENVIRONMENT

According to the Intergovernmental Panel on Climate Change, which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature will increase by 3.7 to 4.8 degrees Celsius (°C) (6.7 to 8.6 degrees Fahrenheit [°F]) by the end of the century unless additional efforts to reduce GHG emissions are made (IPCC 2014:10). According to CEC, temperatures in California will warm by approximately 2.7°F above 2000 averages by 2050 and by 4.1°F to 8.6°F by 2100, depending on emission levels (CEC 2012:2).

Other environmental resources could be indirectly affected by the accumulation of GHG emissions and the resulting rise in global average temperature. In recent years, California has been marked by extreme weather and its effects. According to CNRA's *Safeguarding California Plan: 2018 Update*, California experienced the driest 4-year statewide precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second smallest Sierra snowpack on record in 2015 and 2014 (CNRA 2018:55). In contrast, the northern Sierra Nevada experienced its wettest year on record during the 2016-2017 water year (CNRA 2018:64). The changes in precipitation exacerbate wildfires throughout California, increasing their frequency, size, and devastation. As temperatures increase, the amount of precipitation falling as rain rather than snow also increases, which could lead to increased flooding because water that would normally be held in the snowpack of the Sierra Nevada and Cascade Range until spring would flow into the Central Valley during winter rainstorm events. This scenario would place more pressure on California's levee/flood control system (CNRA 2018:190–192). Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet, the sea level along California's coastline could rise up to 10 feet by 2100, which is approximately 30–40 times faster than the sea-level rise experienced over the last century (CNRA 2017:102). Changes in temperature, precipitation patterns, extreme weather events, wildfires, and sea-level rise have the potential to threaten transportation and energy infrastructure and crop production (CNRA 2018:64, 116–117, 127).

Cal-Adapt is a climate change scenario planning tool developed by CEC that downscales global climate model data to local and regional resolution under two emissions scenarios. The Representative Concentration Pathway (RCP) 8.5 scenario represents a business-as-usual future emissions scenario, and the RCP 4.5 scenario represents a future with reduced GHG emissions. According to Cal-Adapt, annual average temperatures in the project area are projected to rise by 5.6°F to 8.4°F by 2099, with the low and high ends of the range reflecting the lower and higher emissions increase scenarios (CEC 2019).

Sacramento county experienced an annual average high temperature of 74.4°F between 1950 and 2005. Under the RCP 4.5 scenario, the county's annual average high temperature is projected to increase by 2.8°F to 77.2°F by 2050 and increase an additional 2.3°F to 79.7°F by 2099 (CEC 2018b). Under the RCP 8.5 scenario, the county's annual average high temperature is projected to increase by 3.1°F to 77.5°F by 2050 and increase an additional 4.3°F to 83°F by 2099 (CEC 2019).

Sacramento county experienced an average precipitation of 19.2 inches per year between 1950 and 2005. Under the RCP 4.5 scenario, the county is projected to experience an increase of 2.5 inches to 21.7 inches per year by 2050 and decrease to 21.0 inches per year by 2099 (CEC 2019). Under the RCP 8.5 scenario, the county is projected to experience an increase of 1.5 inches to 20.7 inches per year by 2050 and increase to 22.7 inches per year by 2099 (CEC 2019).

4.7.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

GHG emissions associated with the project would be generated during project construction and by operation of the renovated office building. Estimated levels of construction- and operations-related GHGs are presented below. The project is evaluated for its consistency with adopted regulations, plans, and policies aimed at reducing GHG emissions. These include the 2017 Scoping Plan, Executive Order B-18-12, the California Integrated Waste Management Act, and the City of Sacramento General Plan and Climate Action Plan.

Construction-Related Greenhouse Gas Emissions

Short-term construction-generated GHG emissions were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 (CAPCOA 2016), as recommended by SMAQMD and other air districts in California. Modeling was based on project-specific information (e.g., demolition and hauling and worker trips) where available; assumptions based on typical construction activities; and default values in CalEEMod that are based on the project's location and land use type. Construction activities are anticipated to begin December 2020 and last approximately three years.

Operational Greenhouse Gas Emissions

Project-related operational emissions of GHGs were estimated for the following sources: area sources (e.g., landscaping-related fuel combustion sources, emergency backup generator operation, painting), water use, solid waste generated, and mobile sources. Operation-related mobile-source GHG emissions were modeled based on the estimated level of VMT by employees and vendors making deliveries. Table 4.4-9 in Section 4.4 "Transportation and Circulation," shows the estimated 183 additional vehicle trips that would be generated by the project. Based on the project's additional vehicle trips and the estimated daily VMT per employee from the Central City Specific Plan EIR (Table 4.12-8, City of Sacramento 2018), it is estimated that the project would generate an additional 2,096 VMT above existing levels, with trips generally distributed to the surrounding roadway network based on existing travel patterns in the area and locations of nearby complementary land uses (e.g., residences, schools, commercial retail, places of employment). Mobile-source emissions were calculated using CalEEMod 2016.3.2.

Emissions associated with electricity were excluded from the inventory due to the project's compliance with EO B-18-12 which requires electricity use to be offset by 100 percent offsite renewable sources through a contract with the Sacramento Municipal Utility District (SMUD) and a 15 percent exceedance of Title 24, Part 6 building energy efficiency standards. The inventory also excludes natural gas because the project does not and would not have any direct natural gas use.

Detailed modeling assumptions and inputs for these calculations can be found in Appendix D.

THRESHOLDS OF SIGNIFICANCE

The issue of global climate change is inherently a cumulative issue because the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Thus, the project's impact on climate change is addressed only as a cumulative impact.

The significance criteria used to evaluate project impacts on climate change under CEQA are based on Section 15064 and relevant portions of Appendix G of the State CEQA Guidelines, which recommend that a lead agency consider a project's consistency with relevant, adopted plans and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. Implementation of the project would result in a cumulatively considerable contribution to climate change if it would:

- generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
- conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.7-1: Project-Generated GHG Emissions

Project construction would generate approximately 1,695 $MTCO_2e$. Operation of the project would generate approximately 474 $MTCO_2e$/year. However, both construction and operation of the project would include GHG efficiency measures consistent with all applicable State and local polices and regulations for the purpose of reducing GHG emissions and enabling achievement of the statewide reduction targets of AB 32 of 2006 and SB 32 of 2016. The project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Therefore, this impact would be **less than significant**.

GHG emissions associated with the project would be generated during project construction and by operation of the building after renovation. Estimated levels of construction- and operations-related GHGs are presented below, followed by a discussion of the project's consistency with applicable regulations and policies established to enable the achievement of mandated statewide GHG reduction goals.

Construction-Generated Greenhouse Gas Emissions

Project-related construction activities would result in the generation of GHG emissions. Off-road construction equipment, materials transport, and worker commute during construction of the project would result in exhaust emissions of GHGs (see Section 3.3, "Air Quality," for construction activity, duration, and equipment types). Based on modeling conducted for the project, construction is estimated to generate a total of 1,695 $MTCO_2e$ over the duration of construction activities (2020–2023). Total construction emissions were amortized over a 25-year period, consistent with guidance from SMAQMD (SMAQMD 2016), resulting in annualized emissions of 68 $MTCO_2e$. See Appendix D for detailed input parameters and modeling results.

Operational Greenhouse Gas Emissions

The renovated building would have no direct use of natural gas as an energy source and electricity would be offset by renewable sources. Therefore, operation of the project would only result in mobile-source GHG emissions associated with vehicle trips to and from the project (i.e., project-generated VMT); area-source emissions from the operation of landscape maintenance equipment; stationary-source emissions from the use of an emergency diesel generator; water-source emissions from water use and the conveyance and treatment of wastewater; and waste-source emissions from the transport and disposal of solid waste. Emissions estimated to be generated from project operation are reported in Table 4.7-3.

Table 4.7-3 Operational Greenhouse Gas Emissions

Emissions Sector	Annual $MTCO_2e$
Vehicle Trips (Mobile Sources)	395
Solid Waste Generation	14
Emergency Generator	218
Water Consumption and Wastewater Treatment	<1
Area Sources	<1
Amortized Construction Emissions	68
Total Operational GHG Emissions	**696**

Notes: Totals may not add due to rounding.

$MTCO_2e$ = metric tons of carbon dioxide equivalent.

See Appendix D for detailed input parameters and modeling results.

Source: Modeled by Ascent Environmental in 2019

Operational analysis of the project assumed 960 existing employees with an additional 10 percent increase for a total of 1,056 employees. Although the project is not intended to result in any increase in employees, a 10 percent increase allows for a conservative estimate of operational emissions. The operational emissions include VMT from the additional 96 employees. The VMT and associated GHG emissions from these employees is added to the mobile source GHG emissions identified in Table 4.7-3.

Thus, the level of annual GHG emissions associated with the project, is estimated to be approximately 696 $MTCO_2e$/year.

Consistency with Applicable Plans, Policies, and Regulations for the Purpose of Reducing Greenhouse Gas Emissions

Consistency with the 2017 Scoping Plan

Consistency with the emissions targets provided by SB 32 would also result in consistency with emissions targets provided by AB 32 of 2006, which are less stringent. The 2017 Scoping Plan lays out the framework for achieving the 2030 statewide GHG reduction target of 40 percent below 1990 levels and progress toward additional reductions. Appendix C of the 2017 Scoping Plan includes detailed GHG reduction measures and local actions that land use development projects and municipalities can implement to support the statewide goal. For project-level CEQA analyses, the 2017 Scoping Plan states that projects should implement feasible mitigation, preferably measures that can be implemented on-site. The project would include GHG reduction features that would be consistent with the measures listed in Appendix C of the 2017 Scoping Plan, as detailed below

The project would achieve or exceed LEED version 4 (v4) Silver certification (version 4 is the current version of the certification standards), which reduces building energy and water consumption, resulting in a decrease in indirect GHG emissions. The building would have no direct use of natural gas and depend only on electricity. Further, the building's electricity would be provided by 100 percent renewable sources through a contract with SMUD. Other energy-efficient design features include energy-efficient interior lighting, energy-efficient exterior lighting, energy efficient HVAC systems, and upgraded windows. More details about these design features are provided in Chapter 3, "Project Description."

The project would also feature transportation-related emission reduction measures that are listed as local actions in the 2017 Scoping Plan. These include secure bicycle parking for employees, access to transit service (both light-rail and bus), limited onsite parking (i.e., one parking space for a building manager). The project would also include water efficiency measures, which would decrease indirect GHG emissions associated with the treatment and distribution of potable water through measures including an upgraded domestic water supply equipment, fire sprinkler supply, and irrigation system.

Consistency with Executive Order B-18-12

Executive Order B-18-12 requires State agencies to implement green building practices to improve energy, water, and materials efficiency. The Executive Order applies to both renovated and new State buildings with a floor area greater than 10,000 square feet and specifies that buildings must use clean, on-site power generation. The renovated Bateson Building with a building area of approximately 293,600 square feet and a net usable area of approximately 214,600 square feet of general-purpose office space, amenities, and building operations space. The project would comply with Executive Order B-18-12 through achieving or exceeding LEED v4 Silver, purchasing 100 percent renewable electricity, and installing efficient water fixtures to meet state agency water use reduction goals.

Consistency with the California Integrated Waste Management Act

The project would achieve a waste diversion rate of at least 50 percent, which is required for all State agencies, thereby reducing the level of GHGs associated with solid waste generation.

Consistency with Greenhouse Gas Policies in the City of Sacramento General Plan and Climate Action Plan

The City of Sacramento General Plan includes a policy that aims to reduce GHG emissions through "discouraging auto-dependent sprawl and dependence on the private automobile; promoting water conservation and recycling; promoting development that is compact, mixed use, pedestrian friendly, and transit oriented; promoting energy-efficient building design and site planning; improving the job/housing ratio in each community; and other methods of reducing emissions" (City of Sacramento 2015). The Sacramento Climate Action Plan, which is incorporated into the City's General Plan, includes strategies to address GHG emissions associated with transportation and land use, energy consumption, water use, solid waste management and recycling, agriculture, and open space. The project aligns with these plans because of its downtown location (preventing sprawl), its use of an existing space, and its proximity to multiple modes of public transit (e.g., light rail and bus service). The project features energy-efficient design through its exceedance of both the 2019 Title 24 building energy efficiency standards and the 2019 Title 24 water efficiency standards and incorporation of low-flow plumbing fixtures. As is required by State agencies, a waste diversion rate of at least 50 percent would be achieved.

Summary

Project construction would generate approximately 1,695 $MTCO_2e$. Operation of the project would generate approximately 542 $MTCO_2e$/year while supporting an employment center for up to approximately 1,056 employees. Both construction and operation of the office building would include GHG efficiency measures consistent with all applicable State and local polices and regulations for reducing GHG emissions and enabling achievement of the statewide GHG targets of AB 32 of 2006 and SB 32 of 2016. Thus, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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4.8 ENERGY

This section evaluates whether the project would result in inefficient, wasteful, and unnecessary consumption of energy. The capacity of existing and proposed infrastructure to serve the project is evaluated in Section 4.5, "Utilities and Infrastructure."

Project-related energy consumption would include energy directly consumed during project operation for lighting, and other electrically powered equipment. Electricity use would be sourced from 100 percent renewable sources under a capital contract agreement with the Sacramento Municipal Utility District (SMUD), the regional electricity utility provider. Transportation-related energy consumption includes the use of fuels and electricity to power cars and trucks traveling to and from the site during both construction and operational phases. While the project site has access to public transit, for the purposes of this analysis, transportation energy use from single occupancy vehicles was conservatively quantified as public transit was not considered as a means of transport to provide a worst-case analysis.

4.8.1 Regulatory Setting

Federal and state agencies regulate energy consumption through various policies, standards, and programs. At the local level, individual California cities and counties establish policies in their general plans and climate action plans related to the energy efficiency of new development and land use planning and to the use of renewable energy sources.

Energy conservation is embodied in many federal, state, and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the U.S. Environmental Protection Agency's [EPA] EnergyStar™ program) and transportation (e.g., fuel efficiency standards). At the State level, Title 24 of the California Code of Regulations sets forth energy standards for buildings. Further, the State provides rebates and tax credits for installation of renewable energy systems, and administers the Flex Your Power program, which promotes conservation in multiple areas.

FEDERAL

Energy Policy and Conservation Act, and CAFE Standards

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Pursuant to this act, the National Highway Traffic and Safety Administration, part of the U.S. Department of Transportation (DOT), is responsible for revising existing fuel economy standards and establishing new vehicle economy standards.

The Corporate Average Fuel Economy (CAFE) program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Compliance with CAFE standards is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the county. EPA calculates a CAFE value for each manufacturer based on the city and highway fuel economy test results and vehicle sales. Based on information generated under the CAFE program, DOT is authorized to assess penalties for noncompliance.

Energy Policy Act of 1992 and 2005

The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy. Section 131 of the Energy Policy Act directed EPA and the U.S. Department of Energy to jointly advance the EnergyStar™ labeling program to reduce pollution and improve building energy efficiency.

The Energy Independence and Security Act of 2007 increased the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly five-fold increase over then-current levels; and reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It represents a major step forward in expanding the production of renewable fuels, reducing dependence on oil, and confronting global climate change. The Energy Independence and Security Act of 2007 increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly five-fold increase over current levels; and reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent.

By addressing renewable fuels and the CAFE standards, the Energy Independence and Security Act of 2007 builds upon progress made by the Energy Policy Act of 2005 in setting out a comprehensive national energy strategy for the 21st century.

STATE

Renewables Portfolio Standard Program

Senate Bill (SB) 1078 (Chapter 516, Statutes of 2002) established a renewables portfolio standard (RPS), requiring renewable energy to be included into the mix of energy sources that private utilities use to supply electricity. SB 100 was enacted on September 10, 2018, modifying the RPS to require that electrical utilities supply 44 percent of retail sales from renewable resources by December 31, 2024, 50 percent by December 31, 2026, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. The law requires that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. In 2017, SMUD the electrical utility provider in the project area, obtained 19 percent of its supplied electricity from renewable energy sources (CEC 2018a).

Executive Order B-18-12: Green Building Action Plan

In 2012, Executive Order (EO) B-18-12 (State of California Governor Office 2012) and the 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 Zero Net Energy (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.
- 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.

Guidelines for State agencies to meet the Energy and Sustainability goals required by EO B-18-12 are published in Section 1800 of the State Administrative Manual (SAM). SAM Section 1815 and related DGS Management Memo MM 15-04 focus specifically on energy use reduction for new, existing, and leased buildings (DGS 2015).

California Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the state's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). California Energy Commission (CEC) updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. In 2016, CEC updated the California Energy Code again, effective January 1, 2017. CEC estimates that the 2016 California Energy Code is 28 percent more efficient than 2013 California Energy Code for residential construction and is 5 percent more efficient for non-residential construction.

The 2019 California Energy Code was adopted by CEC on May 9, 2018 and will apply to projects constructed after January 1, 2020. Non-residential buildings are anticipated to reduce energy consumption by 30 percent as compared to the 2016 California Energy Code primarily through prescriptive requirements for high-efficiency lighting (CEC 2018b). The California Energy Code is enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary due to local climatologic, geologic, or topographic conditions, provided that these standards exceed those provided in the California Energy Code.

State Administrative Manual Section 1815.3-1(d), states that "All new building and renovation projects larger than 10,000 gross square feet shall be commissioned in accordance with… California Title 24, Part 6 Energy Efficiency Standards that are in effect at the time." Additionally, 1815.3-1(a) states that "all new building and renovation projects shall be designed and constructed to exceed by 15 percent the applicable version of the Title 24, Part 6, Building Energy Efficiency Standards.

California Green Building Standards (Title 24, Part 11)

The California Green Building Standards, also known as CALGreen, is a reach code (i.e., optional standards that exceed the requirements of mandator codes) developed by CEC that provides green building standards for statewide residential and non-residential construction. The current version is the 2016 CALGreen Code, which will remain in effect until December 31, 2019. It is anticipated that a new version of the CALGreen code will replace the current code on January 1, 2020. The CALGreen Code sets equivalent or more stringent design requirements than the California Energy Code for energy efficiency, water efficiency, waste diversion and indoor air quality. These codes are adopted local agencies that enforce building codes and used as guidelines by State agencies for meeting the requirements of B-18-12.

Senate Bill 375

SB 375 requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy for Regional Transportation Plans. The Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) is used by CARB to set reduction targets for GHGs emitted by passenger cars and light trucks. The Sacramento Area Council of Governments (SACOG) serves as the MPO for the proposed project area. SACOG adopted its MTP/SCS 2035 in 2012, and completed an update adopted on February 18, 2016 (SACOG 2016). SACOG was tasked by CARB to achieve a 7 percent per capita reduction compared to 2012 emissions by 2020 and a 16 percent per capita reduction by 2035, which CARB confirmed the region would achieve by implementing its SCS (CARB 2013). In March 2018, CARB

adopted the Target Update for the SB 375 targets tasking SACOG to achieve a 7 percent and a 19 percent per capita reduction by 2020 and 2035, respectively (CARB 2018). MTP/SCS is federally required to be updated every four years and is currently being updated for adoption by February 2020.

Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars program which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017 through 2025. The new rules strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025. By 2025, when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions than the statewide fleet in 2016 (CARB 2016).

LOCAL

The Gregory Bateson Building Renovation 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 DGS. 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 in its evaluation of 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.

City of Sacramento

City of Sacramento 2035 General Plan

The City of Sacramento 2035 General Plan includes the following policies applicable to the energy efficiency of new development and reducing communitywide energy consumption in Sacramento:

- **Policy U 6.1.5.** 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 U 6.1.6.** 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 U 6.1.7.** 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 U 6.1.8.** 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 U 6.1.15.** Energy Efficiency Appliances. The City shall encourage builders to supply EnergyStar™ appliances and HVAC [heating, ventilation, and cooling] systems in all new residential developments, and shall encourage builders to install high-efficiency boilers where applicable, in all new non-residential developments.

Sacramento Climate Action Plan

The Sacramento Climate Action Plan was adopted on February 14, 2012 by the Sacramento City Council and was incorporated into the 2035 General Plan. The Sacramento Climate Action Plan includes GHG emission reduction targets, strategies, and implementation measures developed to help the city reach these targets. Reduction strategies address GHG emissions associated with transportation and land use, energy, water, waste management and recycling, agriculture, and open space. The City's goals related to transportation and energy use are described below.

- Improve accessibility and system connectivity by removing physical and operational barriers to safe travel.

- Reduce reliance on the private automobile.
- Use emerging transportation technologies and services to increase transportation system efficiency.
- Design, construct, and maintain a universally accessible, safe, convenient, integrated and well-connected pedestrian system that promotes walking.
- Create and maintain a safe, comprehensive, and integrated transit system as an essential component of a multimodal transportation system.
- Support the development and provision of privately funded and/or privately-operated transit services that support citywide and regional goals by reducing single-occupant vehicles (SOV) trips, vehicle miles traveled and GHG emissions.
- The City and other agencies within jurisdiction over roadways within City limits shall plan, design, operate and maintain all streets and roadways to accommodate and promote safe and convenient travel for all users – pedestrians, bicyclists, transit riders, and persons of all abilities, as well as freight and motor vehicle drivers.
- Maintain an interconnected system of streets that allows travel on multiple routes by multiple modes, balancing access, mobility and place-making functions with sensitivity to the existing and planned land use context of each corridor and major street segment.
- Create and maintain a safe, comprehensive, and integrated bicycle system and set of support facilities throughout the city that encourage bicycling that is accessible to all. Provide bicycle facilities, programs and services and implement other transportation and land use policies as necessary to achieve the City's bicycle mode share goal as documented in the Bicycle Master Plan.
- Provide and manage parking such that it balances the citywide goal of economic development, livable neighborhoods, sustainability, and public safety with the compact multi-modal urban environment prescribed by the General Plan.
- Provide for the energy needs of the city and decrease dependence on nonrenewable energy sources through energy conservation, efficiency, and renewable resource strategies.

4.8.2 Environmental Setting

PHYSICAL SETTING

Energy Facilities and Services in the Project Area

Electric services in the City of Sacramento are provided by SMUD. Natural gas services are provided by the Pacific Gas and Electric Company (PG&E). The State maintains a contract with SMUD requiring that energy provided to State buildings by SMUD be from 100 percent renewable resources.

The building does not have natural gas service; however, the building's heating and cooling is, and would continue to be, provided by chilled water and steam from the State's Central Utility Plant. Steam is generated by boilers heated with natural gas delivered by PG&E. The water chilling system uses a combination of cooling towers that use evaporative cooling and electric chillers. Electricity that operates fans, pumps, and other equipment associated with the cooling towers, and the electric chillers, is delivered by SMUD.

Energy Types and Sources

California relies on a regional power system composed of a diverse mix of natural gas, petroleum, renewable energy, hydroelectric, and nuclear generation sources. In 2014, approximately 35 percent of natural gas consumed in the state was used to generate electricity.

Power plants in California meet approximately 68 percent of the in-state electricity demand, hydroelectric power from the Pacific Northwest provides 12 percent, and power plants in the southwestern U.S. provide the remaining 20 percent

(EIA 2014). The contribution of in- and out-of-state power plants depends on the precipitation that occurred in the previous year, the corresponding amount of hydroelectric power that is available, and other factors. SMUD is the primary electricity supplier in the City of Sacramento. In 2017, SMUD received 19 percent of its power from renewable sources (e.g. biomass, geothermal, hydroelectric, solar, and wind), 35 percent from large hydroelectric, 44 percent from natural gas, and 2 percent from unspecified sources. (CEC 2018a). The proportion of SMUD-delivered electricity generated from eligible renewable energy sources is anticipated to increase over the next three decades to comply with the RPS and SB 100 goals described in Section 4.8.1. However, as described previously, the State maintains a contract with SMUD requiring that energy provided to State buildings by SMUD be from 100 percent renewable resources.

ENERGY USE FOR TRANSPORTATION

On-road vehicles use about 90 percent of the petroleum consumed in California. The California Department of Transportation projected that 782 million gallons of gasoline and diesel were consumed in Sacramento County in 2015, an increase of approximately 88 million gallons of fuel from 2010 levels (Caltrans 2008).

4.8.3 Impacts and Mitigation Measures

METHODOLOGY

Levels of construction- and operations-related energy consumption by the project include electricity consumption measured in megawatt hours, natural gas consumption measured in therms, and consumption of gasoline and diesel fuel (measured in gallons).

Energy consumption estimates were calculated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 computer software (CAPCOA 2016). Where project-specific information was not known, CalEEMod default values based on the project's location were used.

Fuel use estimates were calculated using the mobile-source emissions module of CalEEMod and the estimated level of vehicle miles traveled associated with project operation. See Appendix E for detailed assumptions and modeling results.

THRESHOLDS OF SIGNIFICANCE

The significance criteria used to evaluate project impacts on energy under CEQA are based on Appendix G of the State CEQA Guidelines. Implementing the project would have a significant impact related to energy if it would:

- result in a potentially significant environmental impact due to the wasteful, inefficient, or unnecessary consumption of energy during project construction or operation; or
- conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.8-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Project Construction or Operations

Although the addition of 96 new employees would result in more energy use, the project would be designed with energy efficiency features, implementation of the project would offset all electricity use through a 100 percent offsite renewable energy agreement through SMUD, and there would be no direct use of natural gas. Because there is no onsite parking at the Bateson Building, and because of the proximity to multiple modes of transportation in the downtown area, the project allows for a reduction in operational vehicle energy use. The project would not result in wasteful, inefficient and unnecessary consumption of energy during construction or operation. This impact would be **less than significant**.

Appendix G of the State CEQA Guidelines requires the consideration of the energy implications of a project. CEQA requires mitigation measures to prevent or reduce "wasteful, inefficient and unnecessary" energy usage. Neither the law nor the State CEQA Guidelines establish thresholds that define when energy consumption is considered wasteful, inefficient and unnecessary.

Table 4.8-1 summarizes the levels of energy consumption for the first full year (2024) of operations, of the renovated Bateson Building.

Table 4.8-1 Operational Energy Consumption in 2023

Land Use/Energy Type	Energy Consumption
Office Building	
Electricity (kWh)[1]	4,239,580
Natural Gas (therms)[2]	0
Diesel (gallons)[3]	12,472
Transportation	
Gasoline (gallons)	19,224
Diesel (gallons)	1,452

Notes: kWh = kilowatt hours, 1 therm = 100,000 British Thermal Units

1. Electricity consumption would be offset by 100 percent offsite renewable energy through a contract with SMUD.

2. Direct natural gas use by office building.

3. Office Building diesel fuel use is consumed by the periodic testing of an emergency generator. Diesel fuel use by the emergency generator is based on a conservative operation time of 500 hours/year.

Source: Calculations by Ascent Environmental in 2019

Most of the construction-related energy consumption would be associated with off-road equipment and the transport of equipment and waste using on-road haul trucks. An estimated 52,218 gallons of gasoline and 80,310 gallons of diesel fuel would be used during construction of the project (Appendix E). The energy needs for project construction would be temporary and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Associated energy consumption would be typical of that associated with office renovation projects in an urban setting. Automotive fuels would be consumed to transport people to and from the project site. Energy would be required to renovate project elements and transport construction materials. The one-time energy expenditure required to construct the physical infrastructure associated with the project would be nonrecoverable. There is no atypical construction related energy demands associated with the proposed project. Non-renewable energy would not be consumed in a wasteful, inefficient and unnecessary manner when compared to other construction activity in the region.

Operation of the project would be typical of office uses requiring electricity for lighting, climate control, and day-to-day activities. Annual electrical use for the buildings would be fully offset by renewable energy resources though an agreement with SMUD.

The building renovations would be designed to consume 15 percent less energy than the mandatory energy efficiency standards set in the 2019 California Green Building Standards for non-residential buildings CCR Title 24, Part 11, Division 5.2. This level of energy efficiency would comply with the Green Building Action Plan for State owned buildings established under EO B-18-12. Also consistent with EO B-18-12, measures addressing energy use reduction, energy-efficient design strategies, and renewable energy sources would be implemented to meet the Silver rating of the U.S. Green Building Council's Leadership in Energy and Environmental Design Version (LEED v4) Green Building Rating System.

In addition, there would be no direct use of natural gas and therefore natural gas consumption is excluded from building operation-related energy use.

Fuel consumption associated with project-related vehicle trips would not be considered wasteful, inefficient or unnecessary in comparison to other similar developments in the region. Based on the estimated annual vehicle miles traveled (532,303 miles) the project would generate during operation; gasoline consumption is estimated at 19,224 gallons per year and diesel consumption is estimated at 1,452 gallons per year. State and federal regulations regarding fuel efficiency standards for vehicles in California are designed to reduce wasteful, inefficient and unnecessary use of energy for transportation. Additionally, the project is located in a Transit Priority Area, adjacent to accessible Regional Transit light rail station and additional transit services and provide bicycle storage, which both align with regional sustainability strategies identified in SACOG's current MTP/SCS.

According to Appendix F of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing per capita energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. All the electricity consumed during operation of the project site would be provided by renewable electricity sources managed by SMUD. Although the addition of 96 employees would require more energy us, the project site, the project would be more energy efficient than existing and newly constructed office buildings and implement energy efficiency measures to meet the LEED v4 Silver standard, thereby providing a relatively energy-efficient land use. For these reasons, the project would not result in a wasteful, inefficient and unnecessary consumption of energy. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.8-2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

Renewable energy generation pursuant to EO-12-18 would result in an increase in renewable energy use, which would directly support the goals and strategies in the State's 2008 EAP II. The renovated building features would improve overall building energy efficiency. The conservation of transportation fuel use would be encouraged through the lack of onsite parking and proximity to multiple modes of transportation in the downtown area. Therefore, implementation of the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be **less than significant**.

Relevant plans that pertain to the efficient use of energy include the EAP, which focuses on energy efficiency; demand response; renewable energy; the supply and reliability of electricity, natural gas, and transportation fuels; and achieving GHG reduction targets (CEC and CPUC 2008).

Renewable Energy Use

Although the addition of 96 new employees would result in more energy use, the project would be designed with energy efficiency design features and the implementation of the project would offset all electricity use through a 100

percent offsite renewable energy agreement through SMUD. In addition, the project would have no direct use of natural gas allowing for all direct emissions to be offset through renewable sources.

Building Energy Efficiency

The project would be designed to achieve LEED v4 Silver certification through the installation of energy efficiency design features such as water fixtures.

Transportation

Because of the project's downtown location, it is within a Transit Priority Area, close proximity to multiple modes of transportation. Furthermore, the Bateson Building does not provide parking for visitors or employees encouraging building occupants to seek more fuel-efficient forms of transportation.

The project's initiative to improve the longevity of the building over its life cycle and reduce its impact on the environment plays a role in reducing its energy use. With the offset of building energy use through the purchase of 100 percent renewable energy from SMUD, conserving energy with the installation of energy efficiency design features, and promoting alternative forms of transportation, the project would directly support EAP goals and strategies. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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4.9 NOISE

This section includes a summary of applicable regulations related to noise, a description of ambient-noise conditions, and an analysis of potential short-term construction and long-term operational-source noise impacts associated with the Gregory Bateson Building Renovation Project (project). Additional data is provided in Appendix F, "Noise Measurement Data and Noise Modeling Calculations."

4.9.1 Acoustic Fundamentals

Prior to discussing the noise setting for the project, background information about sound, noise, vibration, and common noise descriptors is needed to provide context and a better understanding of the technical terms referenced throughout this section.

Sound, Noise, and Acoustics

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a human ear. Noise is defined as loud, unexpected, annoying, or unwanted sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Frequency

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz, or thousands of hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this large range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB).

Addition of Decibels

Because decibels are logarithmic units, SPLs cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness at the same time, the resulting sound level at a given distance would be 3 dB higher than if only one of the sound sources was producing sound under the same conditions. For example, if one idling truck generates an SPL of 70 dB, two trucks idling simultaneously would not produce 140 dB; rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level approximately 5 dB louder than one source.

A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within this range better than sounds of the same amplitude with frequencies outside of this range. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an "A-weighted" sound level (expressed in units of A-weighted decibels) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgment correlates well with the A-scale sound levels of those sounds. Thus, noise levels are typically reported in terms of A-weighted decibels. Table 4.9-1 describes typical A-weighted noise levels for various noise sources.

Table 4.9-1 Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet	— 100 —	
Gas lawn mower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 miles per hour	— 80 —	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, daytime, Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	— 60 —	
Quiet urban daytime	— 50 —	Large business office, Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime	— 30 —	Library, Bedroom at night
Quiet rural nighttime	— 20 —	
	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013a: Table 2-5

Human Response to Changes in Noise Levels

The doubling of sound energy results in a 3-A-weighted decibels (dBA) increase in the sound level. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different from what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear can discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In general, the healthy human ear is most sensitive to sounds between 1,000 and 5,000 Hz and perceives both higher and lower frequency sounds of the same magnitude with less intensity (Caltrans 2013a:2-18). In typical noisy environments, changes in noise of 1–2 dBA are generally not perceptible. However, it is widely accepted that people can begin to detect sound level increases of 3 dBA in typical noisy environments. Further, a 5-dBA increase is generally perceived as a distinctly noticeable increase, and a 10-dBA increase is generally perceived as a doubling of loudness (Caltrans 2013a:2-10). Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dBA increase in sound would generally be perceived as barely detectable.

Common Noise Descriptors

Noise in our daily environment fluctuates over time. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors used throughout this section.

Equivalent Continuous Sound Level (L_{eq}): L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound level that occurs during the same period (Caltrans 2013a:2-48). For instance, the 1-hour equivalent sound level, also

referred to as the hourly L_{eq}, is the energy average of sound levels occurring during a 1-hour period and is the basis for noise abatement criteria used by Caltrans and FTA (Caltrans 2013a:2-47, FTA 2018:10).

Maximum Sound Level (L_{max}): L_{max} is the highest instantaneous sound level measured during a specified period (Caltrans 2013a:2-48, FTA 2018:10).

Day-Night Level (L_{dn}): L_{dn} is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-dB "penalty" applied to sound levels occurring during nighttime hours between 10 p.m. and 7 a.m. (Caltrans 2013a:2-48, FTA 2018:10).

Community Noise Equivalent Level (CNEL): CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m. and a 5-dB penalty applied to the sound levels occurring during evening hours between 7 p.m. and 10 p.m. (Caltrans 2013a:2-48).

Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which a noise level decreases with distance depends on the following factors:

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dBA for each doubling of distance from a point source. Roads and highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources, thus propagating at a slower rate in comparison to a point source. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dBA for each doubling of distance from a line source.

Ground Absorption

The propagation path of noise from a source to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling provides additional attenuation associated with geometric spreading. Traditionally, this additional attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver, such as soft dirt, grass, or scattered bushes and trees), additional ground-attenuation value of 1.5 dBA per doubling of distance is normally assumed. When added to the attenuate rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dBA per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dBA per doubling of distance.

Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels, as wind can carry sound. Sound levels can be increased over large distances (e.g., more than 500 feet) from the source because of atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also affect sound attenuation.

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dBA of noise reduction (Caltrans 2013a:2-41, FTA 2018:15, 16). Vegetation between the

source and receiver is rarely effective in reducing noise because it does not create a solid barrier unless there are multiple rows of vegetation (FTA 2018:106).

Vibration

The typical background vibration-velocity level in residential areas is approximately 50 vibration decibels (VdB). Ground vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (FTA 2018:120, Caltrans 2013b:27).

Typical outdoor sources of perceptible ground vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur to fragile buildings. Construction activities can generate sufficient ground vibrations to pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants (FTA 2018:112, 113).

Construction activities generate varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. Typical construction activities that generate the greatest ground vibration are shown in Table 4.9-2.

Table 4.9-2 Representative Ground Vibration Levels for Construction Equipment

Equipment	PPV at 25 feet (in/sec)	Approximate VdB at 25 feet
Impact Pile Driver	1.518	112
Blasting	1.13	109
Sonic Pile Driver	0.734	105
Large Dozer	0.089	87
Caisson Drilling	0.089	87
Loaded Trucks	0.076	86
Rock Breaker	0.059	83
Jackhammer	0.035	79
Small Dozer	0.003	58

Notes: PPV = peak particle velocity; L_v = the root mean square velocity expressed in vibration decibels (VdB), assuming a crest factor of 4

Source: FTA 2018

4.9.2 Regulatory Setting

FEDERAL

U.S. Environmental Protection Agency Office of Noise Abatement and Control

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate Federal noise control activities. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to state and local governments. However, documents and research completed by the EPA Office of Noise Abatement and Control continue to provide value in the analysis of noise effects.

Federal Transit Administration

To address the human response to ground vibration, the Federal Transit Administration (FTA) has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines are presented in Table 4.9-3.

Table 4.9-3 Ground-Borne Vibration Impact Criteria for General Assessment

Land Use Category	GVB Impact Levels (VdB re 1 micro-inch/second) Frequent Events [a]	GVB Impact Levels (VdB re 1 micro-inch/second) Occasional Events [b]	GVB Impact Levels (VdB re 1 micro-inch/second) Infrequent Events [c]
Category 1: Buildings where vibration would interfere with interior operations.	65 [d]	65 [d]	65 [d]
Category 2: Residences and buildings where people normally sleep.	72	75	80
Category 3: Institutional land uses with primarily daytime uses.	75	78	83

Notes: VdB = vibration decibels referenced to 1 µ inch/second and based on the root mean square (RMS) velocity amplitude.

[a] "Frequent Events" is defined as more than 70 vibration events of the same source per day.

[b] "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

[c] "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.

[d] This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define acceptable vibration levels.

Source: FTA 2018

STATE

California General Plan Guidelines

The State of California General Plan Guidelines 2017, published by the California Governor's Office of Planning and Research (2017), provides guidance for the compatibility of projects within areas of specific noise exposure. Acceptable and unacceptable community noise exposure limits for various land use categories have been determined to help guide new land use decisions in California communities. In many local jurisdictions, these guidelines are used to derive local noise standards and guidance. Citing EPA materials and the State Sound Transmissions Control Standards, the State's general plan guidelines recommend interior and exterior CNEL of 45 and 60 dB for residential units, respectively (OPR 2017:378).

California Department of Transportation

In 2013, the Caltrans published the Transportation and Construction Vibration Manual (Caltrans 2013b). The manual provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage. Table 4.9-4 presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

Table 4.9-4 Caltrans Recommendations Regarding Levels of Vibration Exposure

PPV (in/sec)	Effect on Buildings
0.4-0.6	Architectural damage and possible minor structural damage
0.2	Risk of architectural damage to normal dwelling houses
0.1	Virtually no risk of architectural damage to normal buildings
0.08	Recommended upper limit of vibration to which ruins and ancient monuments should be subjected
0.006-0.019	Vibration unlikely to cause damage of any type

Notes: PPV= Peak Particle Velocity; in/sec = inches per second

Source: Caltrans 2013b

LOCAL

The Gregory Bateson Building Renovation 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 DGS. 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 in its evaluation of 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.

City of Sacramento 2035 General Plan

The Noise section within the Environmental Constraints Element of the City of Sacramento 2035 General Plan establishes the following standards and policies that are relevant to the analysis of the noise effects of the project:

- **Policy EC 3.1.1 Exterior Noise Standards.** The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table EC 1 (presented as Table 4.9-5, below), to the extent feasible.
- **Policy EC 3.1.2 Exterior Incremental Noise Standards.** The City shall require noise mitigation for all development that increases existing noise levels by more than the allowable increment shown in Table EC 2 (presented as Table 4.9-6, below), to the extent feasible.
- **Policy EC 3.1.3 Interior Noise Standards.** The City shall require new development to include noise mitigation to assure acceptable interior noise levels appropriate to the land use type: 45 dBA L_{dn} (with windows closed) for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep; and 45 dBA L_{eq} (peak hour with windows closed) for office buildings and similar uses.
- **Policy EC 3.1.5 Interior Vibration Standards.** The City shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or FTA criteria.
- **Policy EC 3.1.6 Effects of Vibration.** The City shall consider potential effects of vibration when reviewing new residential and commercial projects that are proposed in the vicinity of rail lines or light rail lines.
- **Policy EC 3.1.7 Vibration.** The City shall require an assessment of the damage potential of vibration-induced construction activities, highways, and rail lines in close proximity to historic buildings and archaeological sites and require all feasible measures be implemented to ensure no damage would occur.
- **Policy EC 3.1.8 Operational Noise.** The City shall require mixed-use, commercial, and industrial projects to mitigate operational noise impacts to adjoining sensitive uses when operational noise thresholds are exceeded.
- **Policy EC 3.1.10 Construction Noise.** The City shall require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on these uses, to the extent feasible.
- **Policy EC 3.1.11 Alternatives to Sound Walls.** The City shall encourage the use of design strategies and other noise reduction methods along transportation corridors in lieu of sound walls to mitigate noise impacts and enhance aesthetics.

Table 4.9-5 Exterior Noise Compatibility Standards for Various Land Uses

Land Use Type	Highest Level of Noise Exposure that is Regarded as "Normally Acceptable" [a] (L_{dn} [b] or CNEL [c])
Residential—Low Density Single Family, Duplex, Mobile Homes	60 dBA [d,e]
Residential—Multi Family [f]	65 dBA
Urban Residential Infill [g] and Mixed-Use Projects [h,i]	70 dBA
Transient Lodging—Motels, Hotels	65 dBA

Land Use Type	Highest Level of Noise Exposure that is Regarded as "Normally Acceptable" [a] (L_{dn} [b] or CNEL [c])
Schools, Libraries, Churches, Hospitals, Nursing Homes	70 dBA
Auditoriums, Concert Halls, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70 dBA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75 dBA
Office Buildings—Business, Commercial and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agriculture	75 dBA

a. As defined in the Guidelines, "Normally Acceptable" means that the "specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements."

b. Ldn or Day Night Average Level is an average 24-hour noise measurement that factors in day and night noise levels.

c. CNEL or Community Noise Equivalent Level measurements are a weighted average of sound levels gathered throughout a 24-hour period.

d. Applies to the primary open space area of a detached single-family home, duplex, or mobile home, which is typically the backyard or fenced side yard, as measured from the center of the primary open space area (not the property line). This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.

e. dBA or A-weighted decibel scale is a measurement of noise levels.

f. Applies to the primary open space areas of townhomes and multi-family apartments or condominiums (private year yards for townhomes; common courtyards, roof gardens, or gathering spaces for multi-family developments). These standards shall not apply to balconies or small attached patios in multistoried multi-family structures.

g. With land use designations of Central Business District, Urban Neighborhood (Low, Medium, or High) Urban Center (Low or High), Urban Corridor (Low or High).

h. All mixed-use projects located anywhere in the City of Sacramento

i. See notes d and f above for definition of primary open space areas for single-family and multi-family developments.

Source: OPR 2003, cited in City of Sacramento 2015, 2035 General Plan Table EC 1

Table 4.9-6 Exterior Incremental Noise Impact Standards for Noise-Sensitive Uses

Residences and Buildings where People Normally Sleep [a] Existing dBA L_{dn}	Residences and Buildings where People Normally Sleep [a] Allowable Noise Increment	Institutional Land Uses with Primarily Daytime and Evening Uses [b] Existing Peak Hour dBA L_{eq}	Institutional Land Uses with Primarily Daytime and Evening Uses [b] Allowable Noise Increment
45	8	45	12
50	5	50	9
55	3	55	6
60	2	60	5
65	1	65	3
70	1	70	3
75	0	75	1
80	0	80	0

a. This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.

b. The category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material.

Source: FTA 2006, cited in City of Sacramento 2015, 2035 General Plan Table EC 2

City of Sacramento Noise Control Ordinance

The City's Noise Control Ordinance establishes the following standards related to noise that may be applicable to the project:

8.68.060 Exterior Noise Standards

A. The following noise standards, unless otherwise specifically indicated in this article, shall apply to all agricultural and residential properties.

   1. From seven a.m. to ten p.m. the exterior noise standard shall be fifty-five (55) dBA.

   2. From ten p.m. to seven a.m. the exterior noise standard shall be fifty (50) dBA.

B. It is unlawful for any person at any location to create any noise which causes the noise levels when measured on agricultural or residential property to exceed for the duration of time set forth following, the specified exterior noise standards in any one hour by:

Exterior Noise Standards

Cumulative Duration of the Intrusive Sound	Allowance Decibels
Cumulative period of 30 minutes per hour	0
Cumulative period of 15 minutes per hour	+5
Cumulative period of 5 minutes per hour	+10
Cumulative period of 1 minute per hour	+15
Level not to be exceeded for any time per hour	+20

C. Each of the noise limits specified in subsection B. of this section shall be reduced by 5 dBA for impulsive or simple tone noises, or for noises consisting of speech or music.

D. If the ambient noise level exceeds that permitted by any of the first four noise limit categories specified in subsection B of this section, the allowable noise limit shall be increased in 5 dBA increments in each category to encompass the ambient noise level. If the ambient noise level exceeds the fifth noise level category, the maximum ambient noise level shall be the noise limit for that category.

8.68.070 Interior Noise Standards

A. In any apartment, condominium, townhouse, duplex or multiple dwelling unit it is unlawful for any person to create any noise from inside his or her unit that causes the noise level when measured in a neighboring unit during the periods ten p.m. to seven a.m. to exceed:

   1. Forty five (45) dBA for a cumulative period of more than five minutes in any hour;

   2. Fifty (50) dBA for cumulative period of more than one minute in any hour

   3. Fifty five (55) dBA for any period of time.

B. If the ambient noise level exceeds that permitted by any of the noise level categories specified in subsection A of this section, the allowable noise limit shall be increased in five dBA increments in each category to encompass the ambient noise level.

8.68.080 Exemptions

The following activities shall be exempted from the provisions of this chapter:

D. Noise sources due to the erection (including excavation), demolition, alteration or repair of any building or structure between the hours of seven a.m. and six p.m., on Monday, Tuesday, Wednesday, Thursday, Friday and Saturday, and between nine a.m. and six p.m. on Sunday; provided, however, that the operation of an internal combustion engine shall not be exempt pursuant to this subsection if such engine is not equipped with suitable exhaust and intake silencers which are in good working order. The director of building inspections, may permit work to be done during the hours not exempt by this subsection in the case of urgent necessity and in the interest of public health and welfare for a period not to exceed three days. Application for this exemption may be made in conjunction with the application for the work permit or during progress of the work.

4.9.3 Environmental Setting

EXISTING NOISE ENVIRONMENT

Existing Noise-Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels, and because of the potential for nighttime noise to result in sleep disruption. Additional land uses such as schools, transient lodging, historic sites, cemeteries, and places of worship are also generally considered sensitive to increases in noise levels. These land use types are also considered vibration-sensitive land uses in addition to commercial and industrial buildings where vibration would interfere with operations within the building, including levels that may be well below those associated with human annoyance.

The nearest noise-sensitive receptors are Saratoga Townhomes located along Q Street and 9th Street approximately 140 feet to the southeast of the project site boundary. Rainbow Daycare Inc., is located approximately 400 feet east of the project site at 901 P Street. Franklin D. Roosevelt Park is located approximately 75 feet east of the project site boundary across 9th Street. Office buildings are located to the north, west, and south of the project site, each approximately 80 – 95 feet from the project site boundary. Office buildings and public parks are not generally considered as primary noise-sensitive land uses. However, the City of Sacramento includes noise compatibility standards for such uses within the General Plan Environmental Constraints Section. Therefore, in order to provide a conservative analysis of potential construction noise, nearby offices and parks were identified as noise-sensitive receptors for construction noise modeling. Figure 4.9-1 shows the locations of noise-sensitive receptors relative to the project site.

Source: Data provided by Ascent Environmental 2019

Figure 4.9-1 Sensitive Receptors

Existing Noise Sources and Ambient Levels

Transportation Noise

The predominant noise source in the project area is vehicle traffic on the surrounding roadway network (e.g., 8th Street, 9th Street, P Street, Q Street) and the Sacramento Regional Transit District (SacRT) light rail which travels along O Street, north of the project site. The eastbound and westbound 8th and O SacRT light rail stop is approximately 500 feet north of the project site. Noise associated with the light rail operations near the project consists of warning bells, passengers boarding and exiting trains, wheels squealing during train acceleration and deceleration, mechanical rooftop equipment, and idling.

Existing traffic noise levels on roadway segments in the project area were modeled using calculation methods consistent with the Federal Highway Administration (FHWA) Traffic Noise Model, Version 2.5 (FHWA 2004) and using existing peak-hour traffic volumes provided in the traffic analysis in Section 4.4, "Transportation and Circulation." Table 4.9-7 summarizes the modeled existing traffic noise levels at 50 feet from the centerline of each roadway segment analyzed and lists distances from each roadway centerline to the 70, 65, and 60 dBA CNEL traffic noise contours. For further details on traffic-noise modeling inputs and parameters, refer to Appendix F.

Table 4.9-7 Summary of Modeled Existing Traffic Noise Levels

Roadway Segment/ Segment Description Street Name	Roadway Segment/ Segment Description From	Roadway Segment/ Segment Description To	CNEL (dBA) at 50 feet from Roadway Centerline	Distance (feet) from Roadway Centerline to CNEL Contour 70 dBA	Distance (feet) from Roadway Centerline to CNEL Contour 65 dBA	Distance (feet) from Roadway Centerline to CNEL Contour 60 dBA
N Street	7th Street	8th Street	61.9	8	25	78
N Street	8th Street	9th Street	61.9	8	25	78
N Street	9th Street	10th Street	63.0	10	32	100
N Street	10th Street	11th Street	63.5	11	35	112
O Street	8th Street	9th Street	51.5	1	2	7
O Street	10th Street	11th Street	53.3	1	3	11
P Street	2nd Street	3rd Street	65.5	18	56	178
P Street	3rd Street	7th Street	67.7	29	93	295
P Street	7th Street	8th Street	65.6	18	58	183
P Street	8th Street	9th Street	65.4	17	55	173
P Street	9th Street	10th Street	65.5	18	56	178
P Street	10th Street	11th Street	65.4	17	55	174
Q Street	2nd Street	3rd Street	69.3	43	136	430
Q Street	3rd Street	7th Street	69.1	40	128	405
Q Street	7th Street	8th Street	66.7	24	75	236
Q Street	8th Street	9th Street	66.3	21	67	211
Q Street	9th Street	10th Street	66.2	21	66	210
Q Street	10th Street	11th Street	65.3	17	54	170
W Street	10th Street	11th Street	67.0	25	78	248
W Street	11th Street	15th Street	66.9	25	78	246
W Street	15th Street	16th Street	66.8	24	76	241
W Street	16th Street	17th Street	65.3	17	54	171
X Street	14th Street	15th Street	63.5	11	35	112
X Street	15th Street	16th Street	67.7	29	92	292

Roadway Segment/ Segment Description Street Name	Roadway Segment/ Segment Description From	Roadway Segment/ Segment Description To	CNEL (dBA) at 50 feet from Roadway Centerline	Distance (feet) from Roadway Centerline to CNEL Contour 70 dBA	Distance (feet) from Roadway Centerline to CNEL Contour 65 dBA	Distance (feet) from Roadway Centerline to CNEL Contour 60 dBA
X Street	16th Street	17th Street	65.5	18	56	178
8th Street	Capitol Mall	N Street	61.0	6	20	62
8th Street	N Street	P Street	61.1	6	20	64
8th Street	P Street	Q Street	61.0	6	20	62
8th Street	Q Street	R Street	61.0	6	20	63
9th Street	Capitol Mall	N Street	64.5	14	44	140
9th Street	N Street	O Street	63.7	12	37	117
9th Street	O Street	P Street	64.9	16	49	155
9th Street	P Street	Q Street	65.1	16	51	160
9th Street	Q Street	R Street	65.4	17	55	175
3rd Street	O Street	P Street	66.0	20	63	200
3rd Street	P Street	Q Street	63.0	10	31	99
3rd Street	Q Street	R Street	62.2	8	26	83
7th Street	O Street	P Street	64.0	13	40	126
7th Street	P Street	Q Street	63.2	10	33	105
7th Street	Q Street	R Street	61.7	7	23	74
10th Street	Capitol Mall	N Street	63.9	12	39	124
10th Street	N Street	O Street	65.1	16	51	161
10th Street	O Street	P Street	65.6	18	58	182
10th Street	P Street	Q Street	65.7	19	59	186
10th Street	Q Street	R Street	64.6	15	46	146
11th Street	V Street	W Street	62.8	10	30	96
11th Street	W Street	X Street	64.2	13	41	130
15th Street	V Street	W Street	67.0	25	78	248
15th Street	W Street	X Street	66.3	22	68	215
15th Street	X Street	Broadway	65.2	17	52	166
16th Street	V Street	W Street	67.0	25	78	248
16th Street	W Street	X Street	65.3	17	54	171
16th Street	X Street	Broadway	65.4	17	55	173
On Ramp	15th Street	US 50 WB	64.2	13	42	133
On Ramp	16th Street	US 50 EB	62.9	10	31	97
Off Ramp	US 50 WB	15th Street	64.2	13	41	131
Off Ramp	US 50 EB	16th Street	64.0	13	40	127

Notes: CNEL = Community Noise Equivalent Level

All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow, and does not account for shielding of any type or finite roadway adjustments. All noise levels are reported as A-weighted noise levels. For additional details, refer to Appendix F for detailed traffic data, and traffic-noise modeling input data and output results.

Source: Data modeled by Ascent Environmental in 2019

As shown in Table 4.9-7, the 70 dBA CNEL contours along the roadway segments bordering the project site (P Street between 8th and 9th, Q Street between 8th and 9th, 8th Street between P Street and Q Street, and 9th Street between P Street and Q Street) would not extend farther than 21 feet from the roadway centerline. Additionally, the 65 dBA CNEL contours along the roadway segments bordering the Saratoga Townhomes (9th Street between Q Street and R Street, 10th Street between Q Street and R Street, and Q Street between 9th Street and 10th Street) would not extend farther than 66 feet from the roadway centerline. As shown in Table 4.9-7, none of the 70 dBA CNEL contours along the roadway segments analyzed would extend past 43 feet from the roadway centerline.

4.9.4 Environmental Impacts and Mitigation Measures

METHODOLOGY

Construction Noise and Vibration

To assess potential short-term (construction-related) noise and vibration impacts, sensitive receptors and their relative exposure were identified. Project-generated construction noise and vibration levels were determined based on methodologies, reference emission levels, and usage factors from FTA's *Transit Noise and Vibration Impact Assessment Manual* methodology (FTA 2018) and FHWA's *Roadway Construction Noise Model User's Guide* (FHWA 2006). Reference levels for noise and vibration emissions for specific equipment or activity types are well documented and the usage thereof common practice in the field of acoustics.

Operational Noise and Vibration

With respect to non-transportation noise sources (e.g., stationary) associated with project implementation, the assessment of long-term (operational-related) impacts was based on reference noise emission levels, and measured noise levels for activities and equipment associated with project operation (e.g., heating, ventilation and air conditioning [HVAC] units, delivery docks), and standard attenuation rates and modeling techniques.

To assess potential long-term (operation-related) noise impacts due to project-generated increases in traffic, noise levels were estimated in using calculations consistent with the FHWA's Traffic Noise Model Version 2.5 (FHWA 2004) and project-specific traffic data (Appendix C). The analysis is based on the reference noise emission levels for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and ground attenuation factors. Note that the modeling conducted does not account for any natural or human-made shielding (e.g., the presence of walls or buildings) or reflection off building surfaces.

THRESHOLDS OF SIGNIFICANCE

Although State projects are exempt from local ordinances and standards, City noise standards are reasonable and appropriate thresholds for determination of significance. Therefore, a noise impact is considered significant if implementation of the Gregory Bateson Building Renovation Project would result in any of the following:

- construction-generated noise levels exceeding City Noise Control Ordinance standards during the more noise-sensitive evening, nighttime, and early-morning hours (6 p.m. to 7 a.m., Monday through Saturday, and between 6 p.m. and 9 a.m. on Sunday), specifically, for all agricultural and residential properties, exterior noise levels exceeding 55 dBA from 6 p.m. to 10 p.m., Monday through Sunday, and 7 a.m. to 9 a.m., Sunday; or 50 dBA from 10 p.m. to 7 a.m., Monday through Sunday;
- an increase in ambient-noise levels of more than the allowable noise increment at nearby existing noise-sensitive land uses (Table 4.9-6) as specified in the City of Sacramento General Plan Environmental Constraints Section, or an increase in ambient-noise levels exceeding interior noise standards (45 dBA CNEL/L_{dn}) at nearby existing noise-sensitive land uses as specified in the City of Sacramento General Plan Environmental Constraints Section;

- long-term noise levels generated by stationary or area sources that exceed City Noise Control Ordinance interior standards (55 L_{max}), specifically exterior noise levels at agricultural and residential properties above 55 dBA from 7 a.m. to 10 p.m. or above 50 dBA from 10 p.m. to 7 a.m.;
- construction-generated vibration levels exceeding Caltrans's recommended standards with respect to the prevention of structural building damage (0.2 and 0.08 in/sec PPV for normal and historical buildings, respectively) or FTA's maximum-acceptable-vibration standard with respect to human response (80 VdB for residential uses) at nearby existing vibration-sensitive land uses; or
- for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, excessive noise for people residing or working in the project area.

ISSUES NOT DISCUSSED FURTHER

The project is not located within an airport land use plan, within two miles of a public airport, or within two miles of a private airstrip. Sacramento Executive Airport, the closest airport, is located approximately 3.75 miles south of the project site. Therefore, the project would not result in the exposure of people residing or working in the project area to excessive aircraft-related noise levels and this issue is not discussed further.

Renovation of the existing office building would result in similar long-term operations as existing conditions. Building operations would continue to involve noise-generating mechanical equipment such as HVAC systems, emergency generators, and elevator motors. However, such mechanical equipment would be located within the building or enclosed on the roof and would not alter long-term noise levels nor result in noise levels. The project would not result in long-term stationary noise levels that exceed City Noise Control Ordinance standards. Therefore, the project would not result in a stationary noise impact and this issue is not discussed further.

The project would not require the use of pile driving and would only require minimal use of heavy construction equipment. Construction-related vibration levels generated from the use of dozers would only exceed FTA's maximum acceptable level of 80 VdB with respect to human response at areas within 43 feet of the project site. In respect to structural damage, the Caltrans 0.08 in/sec PPV vibration standard for ruins and ancient monuments, the Caltrans recommended standard of 0.1 in/sec PPV for the prevention of structural damage for normal buildings, or the Caltrans recommended standard of 0.2 in/sec PPV for the prevention of structural damage for dwellings, would only be exceeded at areas within 27 feet, 23 feet, and 15 feet, respectively. There are no vibration-sensitive receptors located within close proximity of the project site and the FTA and Caltrans vibration impact standards would not be exceeded. Therefore, there would be no impacts related to vibration and this issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.9-1: Short-Term Construction-Generated Noise Levels

Proposed construction areas are located in close proximity to existing noise-sensitive receptors. Most noise-generating construction activity would be performed during daytime hours, when construction noise is exempt from noise standards by the City of Sacramento Noise Control Ordinance. Minor indoor construction activity may be required during the non-exempt evening and nighttime hours (6 p.m. to 7 a.m., Monday through Saturday, and between 6 p.m. and 9 a.m. on Sunday). However, such indoor construction activities would not expose nearby noise-sensitive receptors to noise levels that exceed City of Sacramento Noise Control Ordinance nighttime noise standards. This impact would be **less than significant**.

Short-term construction noise levels near the project site would fluctuate depending on the type, number, and duration of usage for the varying equipment. The effects of construction noise largely depend on the type of construction activities being performed; noise levels generated by those activities; distances to noise-sensitive

receptors; the relative locations of noise attenuating features such as vegetation and existing structures; and existing ambient noise levels.

As discussed in Chapter 3, "Project Description," construction activities at the project site would include hazardous materials abatement, utility upgrades, and interior and exterior renovations. The construction labor force would fluctuate depending on the phase of work, with approximately 75 to 95 workers on-site daily during peak construction periods.

Construction equipment may include, but would not be limited to backhoes, dozers, haul trucks, concrete saws, man-lifts, cranes, rollers, concrete trucks and pumps, welders, and generators. The project would not require pile driving or blasting. Noise levels for individual equipment can range from 55 to 85 dBA at 50 feet, as indicated in Table 4.9-8.

Table 4.9-8 Noise Emission Levels from Construction Equipment

Equipment Type	Typical Noise Level (dBA) @ 50 feet
Compressor (Air)	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Crane	85
Dozer	85
Dump Truck	76
Front End Loader	80
Man Lift	75
Roller	85
Generator	82
Pickup Trucks	55

Notes: Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacturer-specified noise levels for each piece of heavy construction equipment.

Source: FTA 2018

Construction generally occurs in several discrete stages, each phase requiring a specific complement of equipment with varying equipment type, quantity, and intensity. These variations in the operational characteristics of the equipment change the effect they have on the noise environment of the project site and in the surrounding area for the duration of the construction period.

Specific timing of each construction phase and activity was not available at the time of this analysis, and therefore, the construction-noise evaluation conservatively assumed that three of the highest noise-generating pieces of equipment could operate simultaneously in close proximity to each other near the boundaries of the project site.

Based on the reference noise levels listed in Table 4.9-8 and accounting for typical usage factors of individual pieces of equipment, on-site construction-related activities could generate a combined hourly average noise level of approximately 88 dBA L_{eq} and a maximum noise level as high as 92 dBA L_{max} at 50 feet from the project boundary. Detailed inputs and parameters for the estimated construction noise exposure levels are provided in Appendix F.

Noise-sensitive receptors that could be adversely affected by construction noise are shown in Table 4.9-9. See Figure 4.9-1 for locations of all nearby sensitive land uses. The distance to, and daytime noise exposure levels at each receptor location were estimated for the closest possible construction activities (at the project boundary) and are summarized in Table 4.9-9. These values represent a conservative assessment because they do not account for any shielding provided by existing buildings and, as stated above, the modeling assumes that three of the highest noise-generating pieces of equipment could operate simultaneously in close proximity to each other near the boundaries of the project site.

As shown in Table 4.9-9, modeled daytime construction-generated noise levels could reach 79.2 dBA L_{eq} at the Saratoga Townhomes, and 70.1 dBA L_{eq} at the Rainbow Daycare Inc. In addition, daytime construction-generated noise levels could reach 84.1 dBA L_{eq} and 84.6 dBA L_{eq} at adjacent office buildings and the Franklin D. Roosevelt Park, respectively.

Table 4.9-9 Levels of Noise Exposure at Noise-Sensitive Receptors during Typical Daytime Construction Activity

Sensitive Receptor [a]	Distance to Project Site (feet)	Daytime Construction Noise Exposure Level at Sensitive Receptor [b] L_{eq} (dBA)	Daytime Construction Noise Exposure Level at Sensitive Receptor [b] L_{max} (dBA)
Saratoga Townhomes	140	79.2	83.2
Rainbow Daycare Inc.	400	70.1	74.1
Office Buildings	80	84.1	88.0
Franklin D. Roosevelt Park	75	84.6	88.6

a. See Figure 4.9-1 for locations of sensitive land uses relative to the project site.

b. Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment.

Source: Data modeled by Ascent Environmental in 2019

Based on the construction noise modeling, short-term noise levels would exceed the City's exterior noise compatibility standards, described in Table 4.9-5. However, as described in Section 4.9.1, "Regulatory Setting," noise generated by construction activity between 7 a.m. and 6 p.m., Monday through Saturday, and between 9 a.m. and 6 p.m. on Sunday are exempt from the provisions of the City Noise Control Ordinance.

Because exterior ambient noise levels typically decrease during the late evening and nighttime hours as traffic volumes and commercial activities decrease, and because typical sleep hours occur during these times, construction activities performed during these more noise-sensitive periods of the day can result in increased annoyance and potential sleep disruption for occupants of nearby residential uses.

Outdoor construction activities would only be conducted between 7 a.m. and 6 p.m., Monday through Saturday, and between 9 a.m. and 6 p.m. on Sunday. No nighttime outdoor construction would occur. Indoor construction activities, such as installing wiring, drywall, and carpet, would be permitted during nighttime hours. However, such activities would not require heavy construction equipment that would potentially result in an increase in ambient noise levels.

Daytime construction noise would be exempt from the City Noise Control Ordinance provisions and indoor nighttime construction activities would not affect residential areas or sensitive receptors where people sleep. Thus, impacts related to short-term construction-generated noise would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.9-2: Long-Term (Operational) Traffic-Generated Noise Levels

Project-generated traffic would not result in traffic noise increases that would expose existing receptors to noise levels or noise level increases that exceed the City of Sacramento noise standards. Therefore, this impact would be **less than significant**.

Project-generated vehicle trips due to 96 new employees would result in an increase in average daily traffic volumes and associated increases in traffic noise levels along affected roadway segments near the project site. To analyze the impact of project-generated operational transportation noise sources, traffic noise levels under existing and existing-plus-project conditions were modeled for affected roadway segments. For further details on traffic volumes and conditions, see Section 4.4, "Transportation and Circulation." Refer to Appendix F for detailed noise modeling input parameters.

Table 4.9-10 summarizes the modeled traffic noise levels at the nearest applicable off-site receptors from the roadway centerlines under existing and existing-plus-project conditions, along with the overall net change in noise level as a result of project-generated traffic.

Table 4.9-10 Summary of Modeled Traffic Noise Levels under Existing and Existing-Plus-Project Conditions

Roadway Segment/Segment Description Street Name	Roadway Segment/Segment Description From	Roadway Segment/Segment Description To	Applicable Exterior CNEL/L_{dn} Noise Standard along Roadway Segment (dBA) [1,2]	CNEL at 50 feet from Roadway Centerline (dBA) Existing No Project	CNEL at 50 feet from Roadway Centerline (dBA) Existing +Project	Change (dBA)
N Street	7th Street	8th Street	70	61.9	61.9	0.0
N Street	8th Street	9th Street	70	61.9	61.9	0.0
N Street	9th Street	10th Street	70	63.0	63.0	0.0
N Street	10th Street	11th Street	70	63.5	63.5	0.0
O Street	8th Street	9th Street	70	51.5	51.5	0.0
O Street	10th Street	11th Street	70	53.3	53.3	0.0
P Street	2nd Street	3rd Street	65	69.0	69.0	0.0
P Street	3rd Street	7th Street	65	67.7	67.7	0.0
P Street	7th Street	8th Street	70	65.6	65.6	0.0
P Street	8th Street	9th Street	70	65.4	65.4	0.0
P Street	9th Street	10th Street	70	65.5	65.5	0.0
P Street	10th Street	11th Street	65	65.4	65.4	0.0
Q Street	2nd Street	3rd Street	65	69.3	69.4	0.1
Q Street	3rd Street	7th Street	65	69.1	69.1	0.0
Q Street	7th Street	8th Street	70	66.7	66.7	0.0
Q Street	8th Street	9th Street	70	66.3	66.3	0.0
Q Street	9th Street	10th Street	70	66.2	66.2	0.0
Q Street	10th Street	11th Street	65	65.3	65.3	0.0
W Street	10th Street	11th Street	60	67.0	67.0	0.0
W Street	11th Street	15th Street	60	66.9	66.9	0.0
W Street	15th Street	16th Street	60	66.8	66.8	0.0
W Street	16th Street	17th Street	60	65.3	65.3	0.0
X Street	14th Street	15th Street	70	63.5	63.5	0.0
X Street	15th Street	16th Street	70	67.7	67.7	0.0
X Street	16th Street	17th Street	60	65.5	65.5	0.0
8th Street	Capitol Mall	N Street	70	61.0	61.0	0.0
8th Street	N Street	P Street	70	61.1	61.1	0.0
8th Street	P Street	Q Street	70	61.0	61.0	0.0
8th Street	Q Street	R Street	70	61.0	61.2	0.2
9th Street	Capitol Mall	N Street	70	64.5	64.5	0.0
9th Street	N Street	O Street	70	63.7	63.7	0.0
9th Street	O Street	P Street	70	64.9	64.9	0.0
9th Street	P Street	Q Street	70	65.1	65.1	0.0
9th Street	Q Street	R Street	65	65.4	65.5	0.1
3rd Street	O Street	P Street	65	66.0	66.0	0.0
3rd Street	P Street	Q Street	65	63.0	63.0	0.0
3rd Street	Q Street	R Street	70	62.2	62.2	0.0

Roadway Segment/Segment Description Street Name	Roadway Segment/Segment Description From	Roadway Segment/Segment Description To	Applicable Exterior CNEL/L_{dn} Noise Standard along Roadway Segment (dBA) [1,2]	CNEL at 50 feet from Roadway Centerline (dBA) Existing No Project	CNEL at 50 feet from Roadway Centerline (dBA) Existing +Project	Change (dBA)
7th Street	O Street	P Street	65	64.0	64.0	0.0
7th Street	P Street	Q Street	70	63.2	63.2	0.0
7th Street	Q Street	R Street	65	61.7	61.7	0.0
10th Street	Capitol Mall	N Street	70	63.9	63.9	0.0
10th Street	N Street	O Street	70	65.1	65.1	0.0
10th Street	O Street	P Street	70	65.6	65.6	0.0
10th Street	P Street	Q Street	65	65.7	65.7	0.0
10th Street	Q Street	R Street	65	64.6	64.6	0.0
11th Street	V Street	W Street	60	62.8	62.8	0.0
11th Street	W Street	X Street	70	64.2	64.2	0.0
15th Street	V Street	W Street	60	67.0	67.0	0.0
15th Street	W Street	X Street	70	66.3	66.3	0.0
15th Street	X Street	Broadway	70	65.2	65.2	0.0
16th Street	V Street	W Street	70	67.0	67.0	0.0
16th Street	W Street	X Street	70	65.3	65.3	0.0
16th Street	X Street	Broadway	70	65.4	65.4	0.0
On Ramp	15th Street	US 50 WB	70	64.2	64.2	0.0
On Ramp	16th Street	US 50 EB	70	62.9	62.9	0.0
Off Ramp	US 50 WB	15th Street	70	64.2	64.2	0.0
Off Ramp	US 50 EB	16th Street	70	64.0	64.0	0.0

Notes: CNEL = Community Noise Equivalent Level; dBA = A-weighted decibels;

1. 70 dBA CNEL – Exterior Noise Standard for office buildings, schools, libraries, churches, hospitals, neighborhood parks, and mixed-use projects per City of Sacramento General Plan.

2. 65 dBA CNEL – Exterior Noise Standard for multi-family residential.

Refer to Appendix F for detailed traffic data, and traffic-noise modeling input data and output results.

Source: Noise levels modeled by Ascent Environmental in 2019

As shown in Table 4.9-10, the addition of project-generated traffic to the surrounding roadway network would not result in any of the roadway study segments experiencing noise increases above 1 dBA. Thus, the project would not result in a perceptible noise increase and would not exceed the allowable noise increment increase standard detailed in the City of Sacramento General Plan (see Table 4.9-6).

Interior noise levels would not exceed the City of Sacramento General Plan standard of 45 dBA CNEL/L_{dn} for residential buildings, given that the typical residential construction provides at least 24 dBA exterior-to-interior attenuation (EPA 1978:11). Therefore, exterior noise levels would need to be at least 69 dBA CNEL for the most stringent interior noise standards (residential standards) to be exceeded.

Therefore, existing receptors would not be exposed to noise levels or noise level increases that exceed applicable City of Sacramento noise standards. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

4.10 HAZARDS AND HAZARDOUS MATERIALS

This section describes the potential impacts of the Gregory Bateson Building Renovation Project related to hazardous materials and public health. The evaluation provided in this section is based on a database search, a hazardous materials survey report for the building, and a Historic Structures Report for the building.

4.10.1 Regulatory Setting

FEDERAL

Management of Hazardous Materials

Federal laws require planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and if such materials are accidentally released, to prevent or mitigate injury to health or the environment. The U.S. Environmental Protection Agency (EPA) is the agency primarily responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. Applicable federal regulations pertaining to hazardous materials are primarily contained in CFR Titles 29, 40, and 49. Hazardous materials, as defined in the Code, are listed in 49 CFR 172.101. Management of hazardous materials is governed by the following laws.

- The Toxic Substances Control Act of 1976 (15 United States Code [USC] Section 2601 et seq.) regulates the manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. Section 403 of the Toxic Substances Control Act establishes standards for lead-based paint hazards in paint, dust, and soil.
- The Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.) is the law under which EPA regulates hazardous waste from the time the waste is generated until its final disposal ("cradle to grave").
- The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also called the Superfund Act or CERCLA) (42 USC 9601 et seq.) gives EPA authority to seek out parties responsible for releases of hazardous substances and ensure their cooperation in site remediation.
- The Superfund Amendments and Reauthorization Act (SARA) of 1986 (Public Law 99-499; USC Title 42, Chapter 116), also known as SARA Title III or the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), imposes hazardous materials planning requirements to help protect local communities in the event of accidental release.
- The Spill Prevention, Control, and Countermeasure (SPCC) rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC Plans. The SPCC rule is part of the Oil Pollution Prevention regulation, which also includes the Facility Response Plan rule.

Transport of Hazardous Materials

The U.S. Department of Transportation regulates transport of hazardous materials between states and is responsible for protecting the public from dangers associated with such transport. The federal hazardous materials transportation law, 49 USC 5101 et seq. (formerly the Hazardous Materials Transportation Act 49 USC 1801 et seq.) is the basic statute regulating transport of hazardous materials in the United States. Hazardous materials transport regulations are enforced by the Federal Highway Administration, the U.S. Coast Guard, the Federal Railroad Administration, and the Federal Aviation Administration.

Worker Safety

The federal Occupational Safety and Health Administration (OSHA) is the agency responsible for assuring worker safety in the handling and use of chemicals identified in the Occupational Safety and Health Act of 1970 (Public Law 91-596, 9 USC 651 et seq.). OSHA has adopted numerous regulations pertaining to worker safety, contained in CFR

Title 29. These regulations set standards for safe workplaces and work practices, including standards relating to the handling of hazardous materials and those required for excavation and trenching.

STATE

Management of Hazardous Materials

In California, both federal and state community right-to-know laws are coordinated through the Governor's Office of Emergency Services (Cal OES). The federal law, SARA Title III or EPCRA, described above, encourages and supports emergency planning efforts at the state and local levels and to provide local governments and the public with information about potential chemical hazards in their communities. Because of the community right-to-know laws, information is collected from facilities that handle (e.g., produce, use, store) hazardous materials above certain quantities. The provisions of EPCRA apply to four major categories:

- emergency planning,
- emergency release notification,
- reporting of hazardous chemical storage, and
- inventory of toxic chemical releases.

Information gathered in these four categories helps federal, state, and local agencies and communities understand the chemical hazards in a particular location or area and what chemicals individual facilities are using, storing, or producing onsite.

The corresponding state law is Chapter 6.95 of the California Health and Safety Code (Hazardous Materials Release Response Plans and Inventory). Under this law, applicable businesses are required to prepare a Hazardous Materials Business Plan, which would include hazardous materials and hazardous waste management procedures and emergency response procedures, including emergency spill cleanup supplies and equipment. At such time as the applicant begins to use hazardous materials at levels that reach applicable state and/or federal thresholds, the plan is submitted to the administering agency.

The California Department of Toxic Substances Control (DTSC), a division of the California Environmental Protection Agency, has primary regulatory responsibility over hazardous materials in California, working in conjunction with EPA to enforce and implement hazardous materials laws and regulations. As required by Section 65962.5 of the California Government Code, DTSC maintains a hazardous waste and substances site list for the State, known as the Cortese List. Individual regional water quality control boards (RWQCBs) are the lead agencies responsible for identifying, monitoring, and overseeing cleanup of leaking underground storage tanks (USTs). The Central Valley RWQCB has jurisdiction over the project site.

Transport of Hazardous Materials and Hazardous Materials Emergency Response Plan

The State of California has adopted U.S. Department of Transportation regulations for the movement of hazardous materials originating within the state and passing through the state; state regulations are contained in 26 California Code of Regulations (CCR). State agencies with primary responsibility for enforcing state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation (Caltrans). Together, these agencies determine container types used and license hazardous waste haulers to transport hazardous waste on public roads.

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local governments and private agencies. Response to hazardous materials incidents is one part of the plan. The plan is managed by Cal OES, which coordinates the responses of other agencies in the project area.

Worker Safety

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations within the state. Cal/OSHA standards are typically more stringent than

federal OSHA regulations and are presented in Title 8 of the CCR. Cal/OSHA conducts onsite evaluations and issues notices of violation to enforce necessary improvements to health and safety practices.

LOCAL

The Gregory Bateson Building Renovation 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 DGS. 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 in its evaluation of 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.

County of Sacramento

The County of Sacramento enforces State regulations governing hazardous substance generators; hazardous substance storage; and the inspection, enforcement, and removals of USTs in both the City of Sacramento and Sacramento County. The County Hazardous Materials Division (HMD) regulates the storage, use, and disposal of hazardous materials in Sacramento County by issuing permits, monitoring regulatory compliance, and investigating complaints. HMD oversees remediation of certain contaminated sites resulting from leaking USTs, reviews technical aspects of cleanup of hazardous-substance sites, and provides assistance to public and private operations seeking to minimize the generation of hazardous substances.

City of Sacramento 2035 General Plan

The following goal and policies from the Sacramento 2035 General Plan Health and Safety Element pertain to hazardous materials and are relevant to the project:

GOAL PHS 3.1: Reduce Exposure to Hazardous Materials and Waste. Protect and maintain the safety of residents, businesses, and visitors by reducing, and where possible, eliminating exposure to hazardous materials and waste.

- Policy PHS 3.1.1: Investigate Sites for Contamination. The City shall ensure buildings and sites are investigated for the presence of hazardous materials and/or waste contamination before development for which City discretionary approval is required. The City shall ensure appropriate measures are taken to protect the health and safety of all possible users and adjacent properties.
- Policy PHS 3.1.2: Hazardous Material Contamination Management Plan. The City shall require that property owners of known contaminated sites work with Sacramento County, the State, and/or Federal agencies to develop and implement a plan to investigate and manage sites that contain or have the potential to contain hazardous materials contamination that may present an adverse human health or environmental risk.
- Policy PHS 3.1.4: Transportation Routes. The City shall restrict transport of hazardous materials within Sacramento to designated routes.

City of Sacramento Department of Utilities

The City of Sacramento regulates the discharge of groundwater to the City's sewer and separated drainage systems. The City's Department of Utilities Engineering Services Resolution No. 92-439 requires approval of a Memorandum of Understanding (MOU) for long-term (greater than 30 days), and an approval letter for short term (less than 30 days), groundwater dewatering discharges to the City's sewer and/or separated drainage system. The MOU must cover proposed dewatering details such as flow rate, system design, and contaminant monitoring plan. Discharges to the sewer must meet the Sacramento Regional County Sanitation District (SRCSD) and RWQCB-approved levels. Dischargers to the sewer must obtain a SRCSD discharge permit. Discharges to the separated drainage system will require approval from RWQCB.

City of Sacramento Hazardous Materials Program

The City's Hazardous Materials Program (HazMat) provides capability for response to hazardous material emergencies. HazMat contains a minimum of 108 fire fighters trained to the Hazardous Materials Response level and includes three Hazardous Materials Response Teams and one Decontamination Team. Under a contractual agreement, HazMat provides 24-hour first response to hazardous materials incidents within the City of Sacramento (City of Sacramento 2014).

City of Sacramento Emergency Operations Plan

The City of Sacramento Emergency Operations Plan (EOP) (2005) provides safeguards to minimize loss of life and property damage during natural disasters and emergencies of national defense. The EOP establishes an Emergency Management Organization and assigns functions and tasks in accordance with California's Standardized Emergency Management System. The EOP provides guidance as to disaster response from the initial onset through the cost recovery process. It includes policies, responsibilities, and procedures necessary to protect human health and safety, public and private property, and the environment from the effects of natural and anthropogenic disasters and emergencies. The EOP outlines the specific emergency-related responsibilities of City agencies. For example, the City of Sacramento Police Department is responsible for implementing emergency evacuations, including traffic control plans, while the City of Sacramento Fire Department is the first responder for hazardous materials incidents (City of Sacramento 2005).

City of Sacramento Evacuation Plan

The City of Sacramento Evacuation Plan (2008) provides evacuation-specific strategy and information to support and guide the City's Emergency Managers, Emergency Operations Center staff, and other governmental and non-governmental agencies that would be involved with an evacuation event in the City. Therefore, the Evacuation Plan serves as an amendment to the EOP. Flooding is considered the primary threat that would invoke an evacuation in Sacramento. Therefore, much of the Evacuation Plan is dedicated to procedures to be followed in the event of a flood emergency. However, the associated strategy and plan details apply to other hazards, as well. The City of Sacramento Fire Department maintains updated records of the emergency response and evacuation routes for the City (City of Sacramento 2008).

4.10.2 Environmental Setting

For purposes of this section, the term "hazardous materials" refers to both hazardous substances and hazardous wastes. A "hazardous material" is defined in the Code of Federal Regulations (CFR) as "a substance or material that … is capable of posing an unreasonable risk to health, safety, and property when transported in commerce" (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

> "Hazardous material" means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

"Hazardous wastes" are defined in California Health and Safety Code Section 25141(b) as wastes that:

> … because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness [or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

The Gregory Bateson Building was originally constructed in 1981 with several building repairs occurring in 2002 due to damage from water intrusion; generally, most hazardous building materials (e.g., lead-based paint and asbestos) predate the 1980s. However, hazardous materials are known to exist in the Gregory Bateson Building. Lead-based-

paint and lead-containing materials were observed during preparations of the Historic Structures Report for the building. The report determined that most materials appeared to be in good condition, with the exception of the loading dock roll-up door, which is deteriorating (Page and Turnbull 2019). Further, the Hazardous Materials Survey Report prepared for the building in August 2018, determined that lead was not detected above the laboratory reporting limit in samples collected for the survey (Aurora ESI 2018).

Asbestos is not harmful unless asbestos fibers become airborne due to material deterioration or damage. The building materials which contain or are assumed to contain asbestos identified in the Gregory Bateson building were generally in good condition and are not likely to release asbestos fibers unless disturbed (DGS 2019). Asbestos-containing materials observed include sealants, floor tiling, insulation, wood, metal, and cement floor conduit. Further, the Hazardous Materials Survey Report prepared in 2018 determined that asbestos was not detected in any samples from the building (Aurora ESI 2018).

All other hazardous materials identified were determined to be in good condition. Sealant samples collected and analyzed for polychlorinated biphenyls (PCBs) had no detections. Samples from landscaping soil showed the only chemical that was detected above regulatory agency criteria was the metal arsenic. Arsenic was detected at a range of 2.8 to 4.7 milligrams per kilogram (mg/kg) with a resultant arithmetic mean concentration of 3.7 mg/kg (Page and Turnbull 2019).

4.10.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The following reports and data sources, which document potential hazardous conditions at the Gregory Bateson Building, were reviewed for this analysis:

- Gregory Bateson Building Historic Structure Report (Page and Turnbull 2019),
- Limited Hazardous Materials Survey Report: Asbestos and Lead (Aurora ESI 2018),
- Asbestos Notification (DGS 2019), and
- available literature, including documents and databases published by federal, State, County, and City agencies.

The proposed renovation activities were evaluated against the hazardous materials information gathered from these sources to determine whether the project would result in any risks to public health and safety or if other conflicts would occur.

THRESHOLDS OF SIGNIFICANCE

The significance criteria used to evaluate project impacts on hazards and hazardous materials under CEQA are based on Appendix G of the State CEQA Guidelines. Implementing the project would have a significant impact related to hazards and hazardous materials if it would:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment;
- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;

- for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area;
- impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

ISSUES NOT DISCUSSED FURTHER

There are no schools within one-quarter mile of the project site; the nearest school is William Land Elementary School in the Sacramento City Unified School District and approximately 0.5-mile southwest of the project site. However, there are several day care/child care centers within one-quarter mile of the project site. Many of these are located within State-owned office buildings and facilities. California Government Code Section 4560-4563 calls for, under certain circumstances, the provision of space for child-care facilities in State office buildings. Although some materials qualifying as hazardous may be used in an office building setting (e.g., cleaners, lubricants for mechanical equipment), these materials, used in this context, are not considered incompatible with nearby day care/child care facilities. The issue of the project emitting hazardous emissions or resulting in the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school is not evaluated further in this Draft EIR.

The project site is not on a list of hazardous-materials sites compiled pursuant to Government Code Section 65962.5 (Cortese List) (CalEPA 2018). Therefore, this issue is not evaluated further.

The project site is not located within an airport land use plan or within two miles of a public airport or public use airport, or within the vicinity of a private airstrip, and would not result in an aviation related safety or noise hazard for people residing or working in the project area. Therefore, this issue is not evaluated further.

Implementation of the project would not result in changes to existing plans, routes, and emergency response within the project vicinity. As described in Chapter 3, "Project Description," DGS would prepare a traffic control plan during the construction period of the project. Implementation of this plan would ensure that any hazardous safety or traffic conditions be avoided. Once the building is operational, similar to existing conditions, there would be no impacts related to emergency evacuation or response plans. No impact would occur, and this issue is not evaluated further.

The project site is in downtown Sacramento, an urban area that includes office buildings; apartments, high-rise condominiums, and other residences; parks; restaurants, and shops. The project site is not adjacent to or intermixed with wildlands. Therefore, the project would not expose people or structures to significant risk due to wildland fires and this issue is not evaluated further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.10-1: Storage, Use, or Transport of Hazardous Materials

Renovation of the Gregory Bateson Building would involve the storage, use, and transport of hazardous materials at the project site. However, use of hazardous materials would be in compliance with local, State, and federal regulations. Therefore, adverse impacts related to the creation of significant hazards to the public through routine transport, storage, use, disposal, and risk of upset would not occur. This impact would be **less than significant**.

Project renovations and operation would involve the temporary storage, use, and transport of hazardous materials (e.g., fuels, lubricants, paint, solvents, cleaners). Transportation of hazardous materials on area roadways is regulated by the California Highway Patrol and Caltrans, whereas use of these materials is regulated by DTSC, as outlined in CCR Title 22. The State would be required to use, store, and transport hazardous materials in compliance with local,

State, and federal regulations during facility construction. Any disposal of hazardous materials would occur in a manner consistent with applicable regulations and at an appropriate off-site disposal facility. In addition, the County Hazardous Materials Division shall be notified if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during exterior renovations, utility trenching, or landscaping. Any storage or use of hazardous materials during operation of the office building would be required to comply with appropriate regulatory agency standards designed to avoid releases of hazardous materials. Because operation and construction associated with building renovations of the project would comply with existing hazardous materials regulations, impacts related to creation of significant hazards to the public through routine transport, use, disposal, and risk of upset would not occur. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.10-2: Exposure of Construction Workers and Others to Hazardous Materials

According to the literature and database review conducted for the project site, hazardous materials (lead-based paint, lead-containing materials, and asbestos-containing materials) were identified in the building, but determined to be generally contained. In addition, levels of arsenic were detected within landscaping soils at the perimeter of the building. Renovation of the building would involve removal of materials containing lead, asbestos, or arsenic, which could result in the exposure of construction workers hazardous materials. Contractors and the State are required to comply with federal, State, and local regulations intended to protect workers and the public from exposure to hazardous materials as well as regulations related to remediation and disposal of contaminated materials. Compliance with these regulations would prevent the project from resulting in a significant risk to construction workers or the public. This impact would be **less than significant**.

Lead-based-paint, lead-containing materials, and asbestos-containing materials within the Gregory Bateson Building were determined to be generally contained. In addition, metal arsenic was detected within landscaping soils above regulatory agency criteria. As described in Chapter 3, "Project Description," building renovations would involve interior and exterior upgrades, including but not limited to hazardous materials abatement, trenching for utility upgrades, and landscaping modifications. Hazardous materials abatement and/or removal of existing building features for renovations has the potential to encounter or mobilize hazardous materials in the building (i.e., flooring, sealants, insulation). Therefore, renovation activities could result in the exposure of construction workers and the public to lead-based paint or other lead-containing materials, asbestos-containing materials, or arsenic.

Contractors and the State are required to comply with federal, State, and local regulations related to the remediation and disposal of any known or yet-unknown contaminated materials encountered during construction, and regulations pertaining to worker safety. The State must coordinate with various agencies regarding appropriate methods to address hazardous materials found in and around the building during renovation activities, including DTSC, EPA, Cal/OSHA, and the Central Valley RWQCB. Remediation and/or methods for containment/removal of asbestos-, lead-, and arsenic-containing materials would follow all regulatory standards. All asbestos-, lead-, arsenic-containing materials removed from the project site would be disposed of in a manner consistent with applicable regulations at an appropriate off-site disposal facility. In addition, the County HMD shall be notified in the unlikely event that evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during utility trenching and (if necessary) dewatering activities. Any disposal of hazardous materials would occur in a manner consistent with applicable regulations and at an appropriate off-site disposal facility.

Remediation and disposal of any identified hazardous materials would be implemented in accordance with federal, State, and local laws and regulations intended to protect workers and the public from exposure to hazardous materials. Compliance with these laws and regulations would be achieved, in part, through direct coordination with applicable regulatory agencies. Compliance with existing regulations would prevent the implementation of the

project from resulting in a significant risk to construction workers or the public from exposure to hazardous materials. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

4.11 BIOLOGICAL RESOURCES

This section addresses common and sensitive biological resources that could be affected by implementation of the Gregory Bateson Building Renovation Project. The data reviewed in preparation of this analysis included:

- California Native Diversity Database (CNDDB) record search of the Taylor Monument, Rio Linda, Citrus Heights, Sacramento West, Sacramento East, Carmichael, Clarksburg, Florin, and Elk Grove U.S. Geological Survey 7.5-minute quadrangles (CNDDB 2019);
- California Native Plant Society (CNPS), Rare Plant Program database search of the Taylor Monument, Rio Linda, Citrus Heights, Sacramento West, Sacramento East, Carmichael, Clarksburg, Florin, and Elk Grove U.S. Geological Survey 7.5-minute quadrangles (CNPS 2019);
- aerial photographs of the project site;
- *City of Sacramento 2035 General Plan Update and Master EIR*; and
- reconnaissance-level survey of the project site on May 2, 2019.

4.11.1 Regulatory Setting

FEDERAL

Federal Endangered Species Act

Pursuant to the federal Endangered Species Act (ESA) (16 U.S.C. Section 1531 et seq.), the U.S. Fish and Wildlife Service (USFWS) regulates the taking of species listed in the ESA as threatened or endangered. In general, persons subject to ESA (including private parties) are prohibited from "taking" endangered or threatened fish and wildlife species on private property, and from "taking" endangered or threatened plants in areas under federal jurisdiction or in violation of state law. Under Section 9 of the ESA, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS has also interpreted the definition of "harm" to include significant habitat modification that could result in take.

Section 10 of the ESA applies if a non-federal agency is the lead agency for an action that results in take and no other federal agencies are involved in permitting the action. Section 7 of the ESA applies if a federal discretionary action is required (e.g., a federal agency must issue a permit), in which case the involved federal agency consults with USFWS.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it will be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. Under the MBTA, "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities." A take does not include habitat destruction or alteration, as long as there is not a direct taking of birds, nests, eggs, or parts thereof. The current list of species protected by the MBTA can be found in Title 50 of the Code of Federal Regulations (CFR), Section 10.13 (50 CFR 10.13). The list includes nearly all birds native to the United States.

STATE

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA), a permit from CDFW is required for projects that could result in the "take" of a plant or animal species that is listed by the state as threatened or endangered. Under CESA,

"take" is defined as an activity that would directly or indirectly kill an individual of a species, but does not include "harm" or "harass," as does the federal definition. As a result, the threshold for take is higher under CESA than under the federal ESA. Authorization for take of state-listed species can be obtained through a California Fish and Game Code Section 2081 incidental take permit.

California Fish and Game Code Sections 3503 and 3503.5—Protection of Bird Nests and Raptors

Section 3503 of the Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the California Fish and Game Code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders *Falconiformes* and *Strigiformes*), including their nests or eggs. Typical violations include destruction of active nests as a result of tree removal or disturbance caused by project construction or other activities that cause the adults to abandon the nest, resulting in loss of eggs and/or young.

Fully Protected Species under the California Fish and Game Code

Protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take.

LOCAL

The Gregory Bateson Building Renovation 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 DGS. 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 in its evaluation of 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.

City of Sacramento 2035 General Plan

The following policies of the *City of Sacramento 2035 General Plan* (City of Sacramento 2015) are relevant to the analysis of biological resources effects of the project:

- **Policy ER 2.1.1:** Resource Preservation. The City shall encourage new development to preserve on-site natural elements that contribute to the community's native plant and wildlife species value and to its aesthetic character.
- **Policy ER 3.1.2:** Manage and Enhance the City's Tree Canopy. The City shall continue to plant new trees, ensure new developments have sufficient right-of-way width for tree plantings, manage and care for all publicly owned trees, and work to retain healthy trees. The City shall monitor, evaluate and report, by community plan area and city wide, on the entire tree canopy in order to maintain and enhance trees throughout the City and to identify opportunities for new plantings.
- **Policy ER 3.1.3:** Trees of Significance. The City shall require the retention of City trees and Heritage Trees by promoting stewardship of such trees and ensuring that the design of development projects provides for the retention of these trees wherever possible. Where tree removal cannot be avoided, the City shall require tree replacement or appropriate remediation.
- **Policy ER 3.1.4:** Visibility of Commercial Corridors. The City shall balance the tree canopy of the urban forest with the need for visibility along commercial corridors, including the selection of tree species with elevated canopies.
- **Policy ER 3.1.6:** Urban Heat Island Effects. The City shall continue to promote planting shade trees with substantial canopies, and require, where feasible, site design that uses trees to shade rooftops, parking facilities, streets, and other facilities to minimize heat island effects.
- **Policy ER 3.1.7:** Shade Tree Planting Program. The City shall continue to provide shade trees along street frontages within the city.

City of Sacramento Tree Preservation Ordinance

The City of Sacramento has adopted an ordinance to protect trees as a significant resource to the community (City Code Title 12, Chapter 12.56, Ordinance 2016-0026 Section 4). It is the City's policy to retain all trees when possible regardless of their size. When circumstances will not allow for retention, permits are required to remove trees that are within City jurisdiction. Trees in the median between the curb and sidewalk are within City jurisdiction; trees on State-owned property are not within City jurisdiction and are not subject to the City's Tree Preservation Ordinance. Removal of, or construction around, trees that are protected by the tree ordinance are subject to permission and inspection by City arborists. The City's Tree Services Division reviews project plans and works with the City Public Works Department during the construction process to minimize impacts on street trees in Sacramento.

4.11.2 Environmental Setting

The project site is composed of the existing Gregory Bateson Building, impervious surfaces (e.g., sidewalks, streets), and urban landscaping. The project site does not contain any aquatic habitat (e.g., streams, wetlands) or any other native vegetation communities.

URBAN LANDSCAPING

Urban landscaping within the project site includes large street trees along 8th Street, 9th Street, P Street, and Q Street; as well as shrubs, small trees, and flowers within planters directly adjacent to the Bateson Building. Street trees include London plane (*Platanus acerifolia*), nonnative pine (*Pinus* spp.), trident maple (*Acer buergerianum*), black locust (*Robinia pseudoacacia*), palm, and sweetgum (*Liquidambar* spp.). Some of the larger street trees are as tall at the Bateson Building and up to approximately 30 inches in diameter. Smaller trees and shrubs adjacent to the building include ornamental dogwood (*Cornus* spp.), azaleas (*Rhododendron* spp.), and English ivy (*Hedera helix*).

COMMON WILDLIFE SPECIES

The project site supports a low diversity of wildlife because it is located in a heavily urbanized area with no native vegetation communities and is subjected to frequent human activity. Most of the wildlife species expected to occur in the project vicinity are adapted to urban environments, and several are nonnative species. Common bird species expected to occur in the project vicinity include house finch (*Haemorhous mexicanus*), Brewer's blackbird (*Euphagus cyanocephalus*), house sparrow (*Passer domesticus*), American robin (*Turdus migratorius*), rock pigeon (*Columba livia*), and American crow (*Corvus brachyrhynchos*). Common mammals that are expected to occur in the project vicinity include opossum (*Didelphis virginiana*) and non-native eastern fox squirrel (*Sciurus niger*).

SENSITIVE BIOLOGICAL RESOURCES

Special-Status Species

Special-status species are plants and animals that are legally protected under CESA (Fish and Game Code, Section 2050 et seq.), ESA, or other regulations, as well as species considered sufficiently rare by the scientific community to qualify for such listing. For this EIR, special-status species are defined as:

- species listed or proposed for listing as threatened or endangered under ESA (50 Code Fed. Regs., Section 17.12) for listed plants, (50 Code Fed. Regs., Section 17.11) for listed animals, and various notices in the Federal Register for proposed species;
- species that are candidates for possible future listing as threatened or endangered under ESA (75 Code Fed. Regs., Section 69222);
- species that are listed or proposed for listing by the State of California as threatened or endangered under CESA of 1984 (14 Cal. Code Regs., Section 670.5);

- plants considered by CDFW to be "rare, threatened, or endangered in California" (Rare Plant Ranks 1A, 1B, 2A, and 2B; CNDDB 2019; CNPS 2019);
- species that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA) Guidelines, Section 15380;
- animals fully protected in California (Fish and Game Code, Section 3511 for birds, Section 4700 for mammals, and Section 5050 for reptiles and amphibians); or
- animal species of special concern to CDFW.

The term "species of special concern" is applied by CDFW to animals not listed under ESA or CESA, but that are considered to be declining at a rate that could result in listing, or that historically occurred in low numbers and known threats to their persistence currently exist. CDFW's fully protected status was California's first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as threatened or endangered under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time, and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.

Table 4.11-1 provides a list of the special-status plant species, and Table 4.11-2 provides a list of the special-status wildlife species that have been documented in the project area, or within nine U.S. Geological Survey 7.5-minute quadrangles surrounding the project site, and described their regulatory status, habitat, and potential for occurrence within the site. A total of 17 special-status plant species and 27 special-status animal species were determined to be present or potentially present within the nine U.S. Geological Survey 7.5-minute quadrangles surrounding the project site (CNDDB 2019, CNPS 2019, Tables 4.11-1 and 4.11-2).

None of the 17 special-status plants identified during the review of existing data could occur within the project site. The project site does not contain any suitable natural habitat for these special-status plants (e.g., wetlands, vernal pools, valley and foothill grassland, riparian woodland; Table 4.11-1). One special-status wildlife species has potential to occur within the project area due to potential nesting habitat in large street trees: Swainson's hawk (*Buteo swainsoni*) (Table 4.11-2).

Common Native Nesting Birds

The large street trees adjacent to the Bateson Building may provide suitable nesting habitat for non-special-status native nesting birds that are provided protection under California Fish and Game Code.

Bats

Suitable roosting habitat for special-status bat species with potential to occur in the project vicinity (e.g., pallid bat [*Antrozous pallidus*], western red bat [*Lasiurus blossevillii*]) is not present within or adjacent to the building. However, the building may provide suitable roosting habitat for common bats, within exterior features, including cracks, crevices, eaves, and small spaces.

Table 4.11-1 Special-Status Plant Species Known to Occur in the Project Vicinity and Their Potential for Occurrence on the Project Site

Species	Listing Status [a] Federal	Listing Status [a] State	Listing Status [a] CRPR	Habitat	Potential for Occurrence [b]
Ferris' milk-vetch *Astragalus tener* var. *ferrisiae*			1B.1	Meadows and seeps, valley and foothill grassland. Subalkaline flats on overflow land in the Central Valley; usually seen in dry, adobe soil. 16 to 246 ft in elevation. Blooms April-May.	Not expected to occur. The project site does not contain wetland or grassland habitat.
bristly sedge *Carex comosa*			2B.1	Marshes and swamps, coastal prairie, valley and foothill grassland, and lake margins. -16 to 5,315 ft in elevation. Blooms May-September.	Not expected to occur. The project site does not contain wetland or grassland habitat.

Species	Listing Status [a] Federal	Listing Status [a] State	Listing Status [a] CRPR	Habitat	Potential for Occurrence [b]
pappose tarplant *Centromadia parryi* ssp. *parryi*			1B.2	Chaparral, coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Vernally mesic, often alkaline sites. 7 to 1,378 ft in elevation. Blooms May-November.	Not expected to occur. The project site does not contain chaparral, wetland, or grassland habitat.
Peruvian dodder *Cuscuta obtusiflora* var. *glandulosa*			2B.2	Freshwater marshes and swamps. 49 to 919 ft in elevation. Blooms July-October.	Not expected to occur. The project site does not contain wetland habitat.
dwarf downingia *Downingia pusilla*			2B.2	Valley and foothill grassland, vernal pools, and vernal lakes. 3 to 1,608 ft in elevation. Blooms March-May.	Not expected to occur. The project site does not contain wetland or grassland habitat.
Boggs Lake hedge-hyssop *Gratiola heterosepala*		SE	1B.2	Freshwater marshes and swamps, lake margins, and vernal pools. Clay soils. 33 to 7,792 ft in elevation. Blooms April-August.	Not expected to occur. The project site does not contain wetland habitat.
woolly rose-mallow *Hibiscus lasiocarpos* var. *occidentalis*			1B.2	Freshwater marshes and swamps. Moist, freshwater-soaked riverbanks and low peat islands in sloughs; can also occur on riprap and levees. 0 to 509 ft in elevation. Blooms June-September.	Not expected to occur. The project site does not contain wetland habitat.
Northern California black walnut *Juglans hindsii*			1B.1	Riparian forest and riparian woodland. Few extant native stands remain; widely naturalized. Deep alluvial soil associated with a creek or stream. 0 to 2,100 ft in elevation. Blooms April-May.	Not expected to occur. The project site does not contain riparian habitat.
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*			1B.2	Restricted to the edges of vernal pools in valley and foothill grassland. 98 to 328 ft in elevation. Blooms March-May.	Not expected to occur. The project site does not contain wetland or grassland habitat.
legenere *Legenere limosa*			1B.1	In beds of vernal pools. 3 to 2,887 ft in elevation. Blooms April-June.	Not expected to occur. The project site does not contain wetland habitat.
Heckard's pepper-grass *Lepidium latipes* var. *heckardii*			1B.2	Valley and foothill grassland and vernal pools. Alkaline soils. 3 to 98 ft in elevation. Blooms March-May.	Not expected to occur. The project site does not contain wetland or grassland habitat.
Mason's lilaeopsis *Lilaeopsis masonii*			1B.1	Freshwater and brackish marshes and riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or riverbank erosion. 0 to 33 ft in elevation. Blooms April-November.	Not expected to occur. The project site does not contain wetland habitat.
slender Orcutt grass *Orcuttia tenuis*	FT	SE	1B.1	Vernal pools and wetlands. Often in gravelly substrate. 82 to 5,758 ft in elevation. Blooms May-September.	Not expected to occur. The project site does not contain wetland habitat.
Sacramento Orcutt grass *Orcuttia viscida*	FE	SE	1B.1	Vernal pools and wetlands. 49 to 279 ft in elevation. Blooms April-July.	Not expected to occur. The project site does not contain wetland habitat.
Sanford's arrowhead *Sagittaria sanfordii*			1B.2	Wetland. Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0 to 2,133 ft in elevation. Blooms May-October.	Not expected to occur. The project site does not contain wetland habitat.
Suisun Marsh aster *Symphyotrichum lentum*			1B.2	Freshwater marshes and swamps. Most often seen along sloughs with *Phragmites*, *Scirpus*, blackberry, *Typha*, etc. 0 to 98 ft in elevation. Blooms May-November.	Not expected to occur. The project site does not contain wetland habitat.

Species	Listing Status [a] Federal	Listing Status [a] State	Listing Status [a] CRPR	Habitat	Potential for Occurrence [b]
saline clover *Trifolium hydrophilum*			1B.2	Marshes, swamps, valley and foothill grassland, and vernal pools. Mesic, alkaline sites. 0 to 984 ft in elevation. Blooms April-June.	Not expected to occur. The project site does not contain wetland or grassland habitat.

Notes: CRPR = California Rare Plant Rank

[a] Legal Status Definitions

Federal:

FE Endangered (legally protected by ESA)

FT Threatened (legally protected by ESA)

State:

SE Endangered (legally protected by CESA)

California Rare Plant Ranks:

1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

Threat Ranks:

0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)

0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)

[b] Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

Sources: CNDDB 2019, CNPS 2019

Table 4.11-2 Special-Status Wildlife Species Known to Occur in the Project Vicinity and Their Potential for Occurrence on the Project Site

Species	Listing Status [a] Federal	Listing Status [a] State	Habitat	Potential for Occurrence [b]
Amphibians and Reptiles				
giant gartersnake *Thamnophis gigas*	FT	ST	Marsh and swamp, riparian scrub, wetland. Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California.	Not expected to occur. The project site does not contain aquatic habitat and is not adjacent to any suitable aquatic habitat.
western pond turtle *Actinemys marmorata*		SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Not expected to occur. The project site does not contain aquatic habitat and is not adjacent to any suitable aquatic habitat.
western spadefoot *Spea hammondii*		SSC	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Not expected to occur. The project site does not contain vernal pool or grassland habitat and is not adjacent to any suitable habitat for this species.
Birds				
bank swallow *Riparia riparia*		ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Not expected to occur. The project site does not contain riparian habitat, or bank or cliff habitat.

Species	Listing Status [a] Federal	Listing Status [a] State	Habitat	Potential for Occurrence [b]
burrowing owl *Athene cunicularia*		SSC	Coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, and valley and foothill grassland. Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Not expected to occur. The project site does not contain suitable grassland nesting habitat for this species.
California black rail *Laterallus jamaicensis coturniculus*		ST FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays.	Not expected to occur. The project site does not contain marsh or wetland habitat.
golden eagle *Aquila chrysaetos*		FP	Broadleaved upland forest, cismontane woodland, coastal prairie, Great Basin grassland, Great Basin scrub, lower montane coniferous forest, pinyon and juniper woodlands, upper montane coniferous forest, and valley and foothill grassland. Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Not expected to occur. The project site does not contain suitable habitat for this species.
least Bell's vireo *Vireo bellii pusillus*	FE	SE	Riparian forest, riparian scrub, riparian woodland. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, *Baccharis*, mesquite.	Not expected to occur. The project site does not contain riparian habitat.
purple martin *Progne subis*		SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	Not expected to occur. Purple martin is known to occur within bridge habitat in downtown Sacramento; however, the project site does not contain suitable habitat for this species (CNDDB 2019).
song sparrow ("Modesto" population) *Melospiza melodia*		SSC	Emergent freshwater marshes, riparian willow thickets, riparian forests of valley oak (*Quercus lobata*), and vegetated irrigation canals and levees.	Not expected to occur. The project site does not contain marsh, wetland, or riparian habitats.
Swainson's hawk *Buteo swainsoni*		ST	Great Basin grassland, riparian forest, riparian woodland, valley and foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	May occur. There are two known Swainson's hawk nesting occurrences within one mile of the project site in downtown Sacramento (CNDDB 2019).
tricolored blackbird *Agelaius tricolor*		ST SSC	Freshwater marsh, marsh and swamp, swamp, wetland. Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Not expected to occur. The project site does not contain marsh, wetland, or other aquatic habitat.
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT	SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Not expected to occur. The project site does not contain riparian habitat.

Species	Listing Status [a] Federal	Listing Status [a] State	Habitat	Potential for Occurrence [b]
white-tailed kite *Elanus leucurus*		FP	Cismontane woodland, marsh and swamp, riparian woodland, valley and foothill grassland, and wetlands. Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Not expected to occur. White-tailed kite is known to nest within the riparian habitat within the American River Parkway; however, the project site does not contain suitable nesting habitat for this species (CNDDB 2019).
yellow-headed blackbird *Xanthocephalus xanthocephalus*		SSC	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds.	Not expected to occur. The project site does not contain marsh, wetland, or other aquatic habitat.
Fish				
chinook salmon - Central Valley spring-run ESU *Oncorhynchus tshawytscha* pop. 6	FT	ST	Sacramento/San Joaquin flowing waters.	Not expected to occur. The project site does not contain aquatic habitat.
chinook salmon - Sacramento River winter-run ESU *Oncorhynchus tshawytscha* pop. 7	FE	SE	Sacramento/San Joaquin flowing waters. Sacramento River below Keswick Dam. Spawns in the Sacramento River, but not in tributary streams.	Not expected to occur. The project site does not contain aquatic habitat.
longfin smelt *Spirinchus thaleichthys*	FC	SSC	Found in open waters of estuaries, mostly in middle or bottom of water column.	Not expected to occur. The project site does not contain aquatic habitat.
Sacramento perch *Archoplites interruptus*		SSC	Historically found in the sloughs, slow-moving rivers, and lakes of the Central Valley.	Not expected to occur. The project site does not contain aquatic habitat.
Sacramento splittail *Pogonichthys macrolepidotus*		SSC	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay and associated marshes. Slow moving river sections, dead end sloughs.	Not expected to occur. The project site does not contain aquatic habitat.
steelhead - Central Valley DPS *Oncorhynchus mykiss irideus* pop. 11	FT		Populations in the Sacramento and San Joaquin rivers and their tributaries.	Not expected to occur. The project site does not contain aquatic habitat.
Invertebrates				
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT		Riparian scrub. Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *caerulea*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	Not expected to occur. The project site does not contain elderberry shrub habitat for this species.
vernal pool fairy shrimp *Branchinecta lynchi*	FT		Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not expected to occur. The project site does not contain vernal pool habitat.
vernal pool tadpole shrimp *Lepidurus packardi*	FE		Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	Not expected to occur. The project site does not contain vernal pool habitat.

Species	Listing Status [a] Federal	Listing Status [a] State	Habitat	Potential for Occurrence [b]
Mammals				
American badger *Taxidea taxus*		SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not expected to occur. The project site does not contain suitable grassland or other natural habitat for this species.
pallid bat *Antrozous pallidus*		SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Not expected to occur. The project site does not contain suitable roosting habitat for this species.
western red bat *Lasiurus blossevillii*		SSC	Cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland. Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Not expected to occur. The project site does not contain suitable roosting habitat for this species.

Notes: CNDDB = California Natural Diversity Database; DPS = distinct population segment: ESU = evolutionarily significant unit.

[a] Legal Status Definitions

Federal:

FE Endangered (legally protected)

FT Threatened (legally protected)

FD Delisted

State:

FP Fully protected (legally protected)

SSC Species of special concern (no formal protection other than CEQA consideration)

SD Delisted

SE Endangered (legally protected)

ST Threatened (legally protected)

[b] Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available; however, there are little to no other indicators that the species might be present.

Source: CNDDB 2019

Sensitive Natural Communities

Sensitive natural communities include those that are of special concern to resource agencies or are afforded specific consideration through CEQA or other federal or State laws. Sensitive natural communities may be of special concern to regulatory agencies and conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species. Many of these communities are tracked in CDFW's CNDDB. There are no sensitive natural communities within or adjacent to the project site.

4.11.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

This impact evaluation is based on data collected during a reconnaissance-level field survey conducted in May 2, 2019, review of aerial photographs, and review of existing databases that address biological resources in the project vicinity as described above.

THRESHOLDS OF SIGNIFICANCE

The significance criteria used to evaluate project impacts on biological resources under CEQA are based on Appendix G of the State CEQA Guidelines. Implementing the project would have a significant impact related to biological resources if it would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- have a substantial adverse effect on state-protected or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

ISSUES NOT DISCUSSED FURTHER

As described above, the project site is occupied by the Bateson Building, pavement, and landscaping; it does not include any potential habitat for special-status plant species. Therefore, no impact on any plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS would occur during construction or operation of the proposed project, and this issue is not discussed further.

The project site, in a developed urban environment in downtown Sacramento, does not contain riparian habitat or other sensitive natural communities. There are no riparian habitats or other sensitive habitats on or adjacent to the project site that would be affected directly or indirectly by project construction or operation. Therefore, no impact on riparian habitat or other sensitive natural communities would occur during construction or operation of the proposed project, and this issue is not discussed further.

The project site does not contain state- or federally-protected wetlands or other features. The project site does not support any wetlands or waters regulated by other agencies. Therefore, no impact on wetlands would occur during construction or operation of the proposed project, and this issue is not discussed further.

The project site does not contain any aquatic habitats, including any waterways supporting fish populations. In addition, runoff from the project site drains into the City's combined stormwater/sewer system and is treated before discharge. Therefore, the project would not have a direct or indirect effect on fisheries habitat or cause fish species to drop below self-sustaining levels. Impacts related to fishery resources are not discussed further.

The project site and surrounding downtown Sacramento area is characterized by urban development with limited vegetation, which consists primarily of ornamental trees and shrubs. There are no areas of native habitats or vegetation in the project vicinity. The project site neither connects nor separates any significant wildlife habitat areas. Therefore, redevelopment of the site would not substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife species to drop below self-sustaining levels; threaten to eliminate a plant or animal community; interfere substantially with the movement of any resident or migratory fish or wildlife species, or with established resident or migratory wildlife corridors; or impede the use of wildlife nursery sites. Impacts related to these significance criteria are not discussed further.

There is no adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan that applies to the project site. The South Sacramento Habitat Conservation Plan does not encompass the project area. The project would not conflict with any habitat conservation plans, and this impact is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.11-1: Disturbance to Swainson's Hawk, Other Nesting Raptors, and Other Native Nesting Birds

Although unlikely, project implementation could result in direct or indirect disturbance to nesting Swainson's hawk, other nesting raptors, and other native nesting birds, if present within the large street trees adjacent to the project site. This is a **potentially significant** impact.

Swainson's hawk is listed as threatened under CESA. The nearest known occurrences of Swainson's hawk are approximately 0.5 mile east and 1.2 miles northeast of the project site (CNDDB 2019). These two occurrences are located within downtown Sacramento, in areas with characteristics similar to the project site (e.g., in an urban setting with development, roads, and noise associated with urban activity). While downtown Sacramento does not have suitable foraging habitat for Swainson's hawk, it is presumed that these nesting birds forage in nearby agricultural areas of Sacramento and Yolo County.

The project site contains landscaped trees and large street trees, some of which may provide suitable nesting habitat for this species. While large nests were not observed during the May 2, 2019 survey, there is some potential for a Swainson's hawk or other raptors (e.g., red-tailed hawk [*Buteo swainsoni*], Cooper's hawk [*Accipiter cooperii*]) to nest within one of these large trees. Additionally, common native nesting birds, which are protected under California Fish and Game Code, could also nest within these trees. Project implementation might include pruning or removal of trees, which could result in direct impacts to nesting Swainson's hawk, other raptors, or other native birds would not be expected. In addition, exterior renovation activities would include replacing windows, walls, and roofing, installing a new fire-water connection to the building, installing a CCTV security system, additional planting of landscape plants, and installation of an irrigation system. Project construction may involve the use of equipment such as boom lifts, generators, and trucks. While these activities would likely not be substantially different from the existing urban conditions in the vicinity of the project site (e.g., vehicle traffic, pedestrian traffic, buses, nearby construction activities), the noise and activity associated with construction could result in indirect disturbance to a nearby nesting Swainson's hawk, other raptor, or other native bird. Indirect disturbance could potentially result in the nest abandonment. Interior renovations are not expected to result in disturbance to Swainson's hawk or other nesting raptors. The direct or indirect disturbance of nesting Swainson's hawk, other nesting raptors, and other native nesting birds, if present within the trees surrounding the Jesse M. Unruh Building or the City street trees adjacent to the project site would be a **potentially significant** impact.

Mitigation Measures

Mitigation 4.11-1: Protect Nesting Swainson's Hawks, Other Raptors, and Other Native Birds

DGS shall require that the following measures are implemented before and during construction:

- To minimize the potential for loss of nesting raptors and other native nesting birds, tree removal and construction activities that could result in disturbance to nesting raptors (i.e., external building renovations near or within the sightline of a raptor nest), to the maximum extent feasible, will be conducted during the nonbreeding season (September 1-January 31). If construction activities commence during the nonbreeding season, and no lapse in activities greater than 14 days occurs, no further mitigation will be required.
- If construction activities that could result in disturbance to nesting raptors commence during the breeding season (February 1 through August 31), a qualified biologist will conduct a survey no more than 14 days prior to the start of construction of the trees surrounding the building to assess whether any trees contain nesting Swainson's hawk, other nesting raptors, or other nesting native bird species (protected by Section 3503 of the Fish and Game Code). Construction activities will only commence if the biologist verifies that no active nests for any Swainson's hawks or other raptor species are present. If an active raptor nest is present, construction will not start until young have fledged. If construction activities that could result in disturbance to nesting raptors lapse for greater than 14 days during the breeding season, then an additional survey will be required prior to the restart of construction.
- If a species other than a raptor species is found nesting, DGS will coordinate with CDFW regarding the best approach for compliance with Section 3503 of the Fish and Game Code. For example, common species in urban environments, such as house finch, may tolerate some increase in noise or other construction activities within close proximity of the nest, and presence of these nests may have no effect on nearby construction activity.

Significance after Mitigation

Implementation of Mitigation Measure 4.11-1 would reduce impacts on Swainson's hawk, other nesting raptors, and other native nesting birds to a **less-than-significant** level because indirect disturbance to the nests would be avoided.

Impact 4.11-2: Disturbance to Common Bat Roosts and Maternal Colonies

Project implementation could result in inadvertent disturbance to roosts or maternal colonies of common bat species or inadvertent exclusion of these bats, if present within the exterior of the Gregory Bateson Building. This is a **potentially significant** impact.

Roost habitat for common bat species is present within downtown Sacramento, including bridges, parking structures, trees, vacant buildings, and cavities (e.g., in human-made structures). The Gregory Bateson Building has been continuously occupied and will continue to be occupied until initiation of construction activities; thus, it is not likely that large maternity roosts have been established within the building. However, common cavity-nesting bat species could roost within exterior features, including cracks, crevices, and small spaces.

Project implementation would include exterior renovation activities such as replacing windows, walls and roofing, and installing a new fire-water connection to the building. These activities, and the associated presence of work crews and equipment (e.g., boom lifts) could result in disturbance of a common bat maternal colony, if present, within the building. Additionally, repairs to the exterior of the Gregory Bateson Building could result in inadvertent exclusion of bats, if the repaired area was previously used as an entry point to a maternal colony. Disturbance or exclusion of a common bat maternal colony would be a **potentially significant** impact.

Mitigation 4.11-2: Conduct Preconstruction Surveys for Bats and Exclude Bats from Roosting Site

DGS shall require that the following measures are implemented before and during construction:

- Prior to commencement of construction activities, a qualified biologist will conduct a survey of the exterior and interior of the Bateson Building for roosting bats. If evidence of bat use is observed, the species and number of bats using the roost will be determined. Bat detectors may be used to supplement survey efforts. If no evidence of bat roosts is found, then no further study and no further mitigation will be required.
- If bat roosts or a maternity colony are found, bats will be excluded from the roosting site before construction begins. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while

females in maternity colonies are nursing young). Once, it is confirmed that bats are not present in the original roost site, construction activities may commence.

Significance after Mitigation

Implementation of Mitigation Measure 4.11-2 would reduce impacts on common bat roosts and maternity colonies to a **less-than-significant** level because roosts and maternity colonies would be identified and bats would be excluded during construction activities.

Impact 4.11-3: Conflict with Applicable Local Policies Protecting Biological Resources

Implementation of the project could result in the direct loss or temporary disturbance of trees protected under the City of Sacramento Tree Preservation Ordinance. This impact would be **potentially significant**.

Trees on the project site may need to be pruned or removed for renovation of the office building. This may include various trees within the State-owned landscaped areas directly adjacent to the Bateson Building (ornamental dogwood [*Cornus spp*.], azaleas [*Rhododendron spp*.], and English ivy [*Hedera helix*]) or trees of various species between the sidewalk and street along 8th Street, 9th Street, P Street, and Q Street (e.g., London plane [*Platanus acerifolia*], nonnative pine [*Pinus spp*.], trident maple [*Acer buergerianum*], black locust [*Robinia pseudoacacia*], palm, and sweetgum [*Liquidambar spp*.]). Trees on State-owned land are generally not subject to the City of Sacramento Tree Preservation Ordinance. However, the trees along 8th Street, 9th Street, P Street, and Q Street between the sidewalk and adjacent streets, qualify as "City street trees" (see the discussion of the City of Sacramento Tree Preservation Ordinance in Section 4.11.1, "Regulatory Background"). It is possible that as final site plans and construction access and operations requirements are developed, one or more City street trees may need to be pruned or removed.

Loss or disturbance of City street trees would conflict with tree protection requirements in the City of Sacramento Tree Preservation Ordinance. This impact is considered **potentially significant**.

Mitigation Measure 4.11-3: Remove and Replace Trees Consistent with the City of Sacramento Tree Preservation Ordinance

Before construction, DGS will complete a survey of trees at the project site and any other areas affected by excavation (e.g., utility work) and construction, and prepare and submit a detailed tree removal, protection, replanting, and replacement plan to the City arborist. The tree removal plan will be developed by a certified arborist. The plan shall include the following elements:

- The number, location, species, health, and sizes of all trees to be trimmed; have their roots affected; or to be removed, relocated, and/or replaced will be identified. This information will also be provided on a map/design drawing to be included in the in the project plans.
- Planting techniques, necessary maintenance regime, success criteria, and a monitoring program for all trees planted on, or retained on the project site will be described.
- DGS will ensure implementation of the tree removal, protection, replanting, and replacement plan during project construction and operation.

Significance after Mitigation

Implementation of this mitigation measure would reduce potentially significant impacts associated with tree removal to a **less-than-significant** level by providing replacement trees and complying with the City's Tree Preservation Ordinance.

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5 CUMULATIVE IMPACTS

5.1 INTRODUCTION TO THE CUMULATIVE ANALYSIS

This Draft EIR provides an analysis of cumulative impacts of the Gregory Bateson Building Renovation Project taken together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. The goal of such an exercise is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant; and second, to determine whether the incremental contribution to any such cumulatively significant impacts by the project would be "cumulatively considerable" (and thus significant). (See State CEQA Guidelines Sections 15130[a]–[b], Section 15355[b], Section 15064[h], and Section 15065[c]; and Communities for a Better Environment v. California Resources Agency [2002] 103 Cal. App. 4th 98, 120.) In other words, the required analysis intends first to create a broad context in which to assess cumulative impacts, viewed on a geographic scale beyond the project site itself, and then to determine whether the project's incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., "cumulatively considerable").

Cumulative impacts are defined in State CEQA Guidelines Section 15355 as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." A cumulative impact occurs from "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (State CEQA Guidelines Section 15355[b]).

Consistent with State CEQA Guidelines Section 15130, the discussion of cumulative impacts in this Draft EIR focuses on significant and potentially significant cumulative impacts. Section 15130(b) of the State CEQA Guidelines provides, in part, the following:

> [t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

A proposed project is considered to have a significant cumulative effect if:

- the cumulative effects of development without the project are not significant and the project's additional impact is substantial enough, when added to the cumulative effects, to result in a significant impact; or
- the cumulative effects of development without the project are already significant and the project contributes measurably to the effect.

The term "measurably" is subject to interpretation. The standards used herein to determine measurability are that the impact must be noticeable to a reasonable person, or must exceed an established threshold of significance (defined throughout the resource sections in Chapter 4 of this Draft EIR).

5.2 CUMULATIVE SETTING

5.2.1 Geographic Scope

The geographic area that could be affected by the project and is appropriate for a cumulative impact analysis varies depending on the environmental resource topic, as presented in Table 5-1.

Table 5-1 Geographic Scope of Cumulative Impacts

Resource Topic	Geographic Area
Archaeological, Historical, and Tribal Cultural Resources	City of Sacramento (historic period resources) Portions of Central Valley identified as the territory of the local Native American community (prehistoric archaeological resources and tribal cultural resources)
Transportation and Circulation	City of Sacramento and Sacramento region
Utilities and Infrastructure	City of Sacramento
Air Quality	Sacramento Valley Air Basin (regional) and immediate project vicinity for highly localized pollutant emissions
Greenhouse Gas Emissions and Climate Change	Global, statewide
Energy	City of Sacramento and Sacramento region
Noise	Immediate project vicinity where project-generated noise could be heard concurrently with noise from other sources
Hazards and Hazardous Materials	City of Sacramento, Central City
Biological Resources	Can be defined differently for each species, based on species distribution, habitat requirements, and scope of impact from proposed activities

Source: Compiled by Ascent Environmental in 2019

5.2.2 Cumulative Context

The City of Sacramento was founded in 1849 along the Sacramento River waterfront and extended east along J Street toward Sutter's Fort. The city's current charter was adopted by voters in 1920, establishing a city council-and-manager form of government, still used today. The city expanded continuously over the years in the first half of the 1900s and in 1964 merged with the city of North Sacramento, just north of the American River. Large annexations were made of the Pocket area on the south and Natomas area on the north. Sacramento currently covers a total area of approximately 99 square miles (City of Sacramento 2015a).

Even with the City's annexations and population growth, there remain substantial areas of land in North Natomas, North Sacramento, South Sacramento, and the Airport Meadowview planning areas that are undeveloped or lightly developed. In addition to these outlying areas, there are significant redevelopment areas in the City core, such as the Railyards, Richards Boulevard, and Docks areas, that are targeted for new higher density development (City of Sacramento 2015b).

Population in the City of Sacramento has increased substantially since 2000, from about 407,000 in 2000 (U.S. Census Bureau 2001) to an estimated 501,344 in 2018 (California Department of Finance 2018). Population growth in the city is projected to continue between 2020 and 2035, and most growth is expected to occur in the Central City. City of Sacramento population projections indicate that the city may have about 640,000 residents by 2035, an increase of approximately 138,700 residents, representing 21 percent of the region's total population (City of Sacramento 2013:H 3-6).

On a broad geographic basis, the Sacramento metropolitan area as a whole is facing numerous regional issues pertaining to degradation of air quality, traffic generation, loss of biological habitat, loss of farmland, and other environmental changes related to urban expansion. In response to these concerns, the City's 2035 General Plan favors developing inward, in and near existing developed areas, rather than outward into greenfields on the edge of

the city. The General Plan growth pattern focuses on infilling and reusing underutilized properties, intensifying development near transit and mixed-use activity centers, and locating jobs closer to housing. The General Plan includes policies to reduce carbon emissions, including encouraging mixed-use development that supports walking, biking, and use of public transit; "green building" practices; and use of solar energy systems, architectural design to reduce heat gain, recycled construction materials, and water conservation measures (City of Sacramento 2015b).

The project site is located within the Central Business District (CBD) of the Central City Community Plan area, which is the core of the City of Sacramento (City of Sacramento 2014) (see Figure 4.2-1 of this EIR). The CBD is identified in the City's 2035 General Plan as a Priority Investment Area (PIA). PIAs are areas of the city that are the highest priority for investment and development through infill, reuse, or redevelopment. The CBD is an urban downtown area that includes State government buildings, corporate offices and businesses, high-rise condominiums, historic neighborhoods, parks and recreational areas, restaurants and shops, schools, and industrial and manufacturing complexes all within a tree-lined street grid. The City's Housing Element estimated that the Central City Community Plan area had 32,367 residents in 2010 and projected that by 2035, the area will have a total of 109,312 residents (City of Sacramento 2013:H 3-5 and H 3-6).

The State's Capitol Area Plan (CAP), the statutory master plan for development on State-owned land surrounding the State Capitol (within the City's Central City Community Plan area), also encourages moving offices within -and using the existing resources of- the Capitol Area (State of California 1997). The CAP speaks to increased energy conservation and use of the transit system in the Capitol Area, and suggests examination of underutilized State properties. As described under "Land Use" in Section 4.2 of this EIR, the Gregory Bateson Building is designated as "office" in the State's CAP (DGS 1997).

5.2.3 Regional Planning Environment

The Gregory Bateson Building Renovation Project involves renovation of a State-owned site within the Capitol Area (covered by the State's CAP) and within the CBD PIA (covered by the City's 2035 General Plan and Central City Community Plan). For this reason, the area most relevant to cumulative impacts is the Central City area of Sacramento. The following plans establish and assess the land use pattern and goals for development and growth in the Central City:

- 1997 Capitol Area Plan (State of California 1997);
- Capitol Area Plan EIR, certified in 1997;
- Capitol Area Plan Progress Report (DGS 2015);
- Sacramento Central City Community Plan, adopted March 3, 2015;
- Master EIR: City of Sacramento 2035 General Plan Update, certified 2015 (SCH No. 2012122006); and
- Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) EIR, certified 2016 (SCH No. 2014062060) (SACOG 2016).

These documents were relied upon in preparing the cumulative impact analysis. The documents are available for review at the California Department of General Services, Real Estate Services Division, Environmental Services Section, 707 Third Street, Third Floor, West Sacramento, CA 95605.

5.2.4 Related Projects

The following analysis of cumulative impacts relies primarily on the plans for land use and growth in downtown Sacramento, as listed in above in Section 5.2.3. This is consistent with Section 15130(d) of the State CEQA Guidelines, which states, "Previously approved land use documents, including, but not limited to, general plans, specific plans, regional transportation plans, plans for the reduction of greenhouse gas emissions, and local coastal plans may be used in cumulative impact analysis."

However, this analysis also considers related projects, or those large past, present, and probable future projects located in downtown Sacramento that could relate to the project. This approach is consistent with Section 15130(b)(1)(A) of the State CEQA Guidelines, which states that a discussion of significant cumulative impacts may include "[a] list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency…." Past projects are constructed and operational projects that are considered as part of the existing baseline conditions, such as the Golden 1 Center (at 5th Street between J and L Streets) and the State's Central Heating and Cooling Plant (between 6th and 7th Streets and P and Q Streets). The probable future projects considered herein are those in the project vicinity that are reasonably foreseeable, meaning projects that are proposed, approved, or planned. The analysis of cumulative environmental impacts associated with the project addresses the potential incremental impacts of the proposed project in combination with the related projects. This is not an all-inclusive list of projects in the region. Rather, it identifies projects approved or planned in downtown Sacramento that, based on the nature of environmental resources being examined, location, and project type, have the potential to interact on a cumulative basis with the proposed project. Each of the following projects is of substantial size, would generate or exacerbate many of the environmental effects being examined for the Gregory Bateson Building Renovation Project, and are located in the general vicinity of the project.

Section 15130(b) of the State CEQA Guidelines provides that a cumulative impact analysis consider either a list of projects (the list approach) or relevant plans and planning documents (the plan approach). The following cumulative impact analysis exceeds the requirements of Section 15130(b) by implementing a plan approach and supplementing the analysis with a modified list approach. This combined approach ensures that the projects likely to have the greatest cumulative interaction with the proposed project are considered.

STATE OF CALIFORNIA

Capital Annex Project

The California State Capitol Building and its Annex house essential government functions, officials, and staff, and welcomes countless visitors each year. However, the State Capitol Building Annex, long past its useful life, is currently inadequate from the perspectives of safety, structure, and size. The current facility is incapable of providing the functional support that elected officials and staff need, and the quality experience that visitors deserve. After construction of the 10th and O Street Office Building, the officials and staff from the Annex would be moved into the new office building and the Joint Rules Committee may pursue the construction of a State Capitol Building Annex or the restoration, rehabilitation, renovation or reconstruction of the State Capitol Building Annex. Once the Annex project is complete, government officials and staff would be moved back into the Annex, and the 10th and O Street Office Building would be occupied by other State programs and employees.

10th and O Street Office Building

The 10th and O Street Office Building Project, currently under construction, involves demolition and removal of the existing asphalt parking lots and some ornamental trees (including City street trees) and then construction of a new office building at 10th and O Streets and construction of a new child care facility at 11th and Q Streets. The new office building will consist of up to 490,000 GSF of office space, plus some limited parking. The new office building will have a maximum height of 150 feet and a proposed occupancy of up to 2,200 staff. It is anticipated that staff occupying the 10th and O Street office building will be the State Legislature and executive branch, and staff, staff from other leased space in the region, and/or from one or more other State-owned buildings slated for eventual renovation and upgrade. In accordance with State policy, the building will be zero net energy (ZNE) facility. Electricity will be provided by Sacramento Municipal Utility District (SMUD), using a contract between SMUD and the State requiring that electricity provided to State buildings be from 100 percent renewable sources.

The child care facility will be a single-story building with approximately 11,500 GSF of space. The new facility will have capacity for 86 children, including 56 transferred from the Department of Transportation (DOT) Tot Child Care Center and an additional 30 children. After the new facility is constructed the DOT Tot Child Care Center will be closed and the existing modular structure would be removed and that location would be converted to surface parking.

1215 O Street Office Building Project – Clifford L. Allenby Building

The 1215 O Street Office Building Project, currently under construction, involves demolition of the existing vacant California Department of Food and Agriculture (CDFA) Annex building located on the southwestern portion of the block bounded by O and N Streets and 12th and 13th Streets and construction of a new approximately 300,000 to 350,000 GSF office building. The new building would be up to 11 stories tall, not exceeding 150 feet in height. In addition, the surface parking lot across O Street from the office building site will be used as a temporary construction staging area during demolition of the CDFA Annex and construction of the new office building. Once construction of the new office building is complete, this parking lot would be repaved, parking spaces painted, and an array of photo-voltaic solar panels would be installed over the parking to generate energy for the new 1215 O Street Office Building. The purpose of the new O Street Office Building is to consolidate and upgrade State office space in the region, specifically to vacate the existing Gregory Bateson building located at 1600 9th Street. Vacating the existing at Bateson Building would allow the eventual renovation and re-occupation of that building (see below). This project would also include ground-level commercial space and would be connected to the State-owned Central Plant for heating and cooling. The project has been approved and is currently being constructed.

P Street Office Building Project

The P Street Office Building Project, currently under construction, involves demolition of an existing surface parking lot and construction of a new office building, or multiple buildings, on the block bounded by O and P Streets and 7th and 8th Streets to accommodate approximately 800,000 gross square feet of office space, plus limited parking. The purpose of the new construction is to consolidate and upgrade State office space in the region, specifically to vacate the existing Resources Building, located at 1416 9th Street (on the southern half of the block between 8th and 9th Streets and N and O Streets). Vacating the existing Resources Building would allow the eventual renovation and reoccupation of that building (see below). Development of the new office building does not affect the historic Heilbron House in its current location. This project also includes ground-level commercial space and will be connected to the State-owned Central Plant for heating and cooling. The project has been approved and is currently being constructed.

Renovation and Reoccupation of the Jesse M. Unruh Building

Renovation of the Jesse M. Unruh Building, proposed by DGS, would renovate and restore the historic, approximately 164,600 GSF building located at 915 Capitol Mall in downtown Sacramento. The project would include removal of hazardous materials; upgrades to fire and life safety; renovations to meet current Americans with Disabilities Act codes and requirements; replacement of mechanical, electrical, and plumbing systems; replacement of non-historic walls and architectural finishes; replacement and restoration of windows and skylights; replacement of elevators; installation of a new stairwell; removal of the Capitol Fountain; and other site work. The building is expected to be vacant during construction and designed for a 50-year life span. Proposed occupancy is approximately 470 – 517 employees.

Renovation and Reoccupation of the Resources Building

Construction of the P Street Office Building Project, which is underway, will allow the existing Resources Building to be vacated, facilitating the restoration and reoccupation of the Resources Building. It is reasonably foreseeable that a building at this location would continue to serve as a State office building with similar massing and similar occupancy. Therefore, for purposes of this cumulative analysis, it is assumed that in the future, the Resources Building site would undergo some of renovation, resulting in a similar size office building able to accommodate approximately 2,300 employees.

Richards Boulevard State Office Complex

The Richards Boulevard State Office Complex project proposes construction of a new office campus on a 17-acre state-owned site at Richards Boulevard and North 7th Street in the River District Specific Plan area of the City of Sacramento. The site currently supports the State Printing Plant, Textbook Warehouse, and associated facilities which are slated for demolition. The project would include 1.3 million square feet of office space in three five-story, mid-rise office buildings, a 24-story, high-rise office building consisting of a five-floor podium and 24-story office tower. The

project would also include a five-level parking garage and additional surface parking. The design will target Zero Net Energy, off-site utility improvements, and space for a cafeteria, auditorium, and childcare facilities.

CITY OF SACRAMENTO

Sacramento Commons Phase I

Phase I of the Sacramento Commons, which has been approved, will involve construction of two seven-story midrise buildings with apartments, live-work units, open space terraces, retail spaces, and enclosed parking. The project is within the approved Sacramento Commons Planned Unit Development, with Phase I at the intersection of 5th and O Streets. The entire Sacramento Commons Planned Unit Development site totals approximately 11.17 acres and is bounded by 5th and 7th Streets and N and P Streets.

The Railyards Project

The Railyards property is located just north of downtown and south of the River District. Once serving as the western terminus of the 1860s Transcontinental Railroad, today the Railyards continue to house a major transportation hub. The 244-acre Railyards site will be a mixed-use hub for entertainment, retail, housing, office, theaters, parks, hotels, and museums

The original Sacramento Railyards project was approved by the City Council on December 11, 2007. The project involved the development of a maximum of 12,100 dwelling units, 1.4 million square feet of retail uses, 1,100 hotel rooms, 2.4 million square feet of office uses, 485,390 square feet of historic/cultural space, and 491,000 square feet of mixed use. A subdivision modification for minor changes was approved by the Planning and Design Commission in 2012. The changes included revising sections of 5th Street and 7th Streets to slow two-way traffic; changing the alignment of 5th and 6th Streets; and revising the tentative map to reflect the realignment and to accommodate a parking garage. In 2016, the City Council approved planning entitlement for:

- 6,000–10,000 dwelling units,
- 514,270 square feet of retail,
- 2,757,027–3,857,027 square feet of office use,
- 771,405 square feet of flexible mixed use,
- 1,228,000 square feet of medical campus,
- 1,100 hotel rooms,
- 485,390 square feet of historic and cultural uses,
- 33 acres of open space, and
- a soccer stadium with 19,621 seats and potential to expand to approximately 25,000 seats

West Broadway Park Specific Plan

The West Broadway Park Specific Plan area is generally bound by the Sacramento River on the west, Broadway on the north; Muir Way and 5th Street on the east; and 4th Avenue on the south. The 279-acre project area includes the Northwest Land Park Planned Unit Development (PUD) area, an infill project (under construction) known as The Mill at Broadway; Alder Grove Public Housing Community and Marina Vista Public Housing community; William Land Woods Affordable Housing Community; Leataata Floyd Elementary School; Health Professionals High School; approximately 32 acres of existing industrial land uses; Miller Regional Park and the Sacramento Marina. The West Broadway Park Specific Plan will include land use regulations and policies, and will identify necessary public improvements to support new urban development. The anticipated development will be consistent with the framework of the General Plan which anticipates a mix of traditional and urban scale housing with neighborhood commercial uses.

I Street Bridge Replacement over the Sacramento River

In 2011, the cities of Sacramento and West Sacramento identified the need for new bridge crossings and replacement of the existing I Street Bridge. The existing I Street Bridge is 100 years old. Because of this, the lanes are too narrow to serve buses, there are no bicycle lanes, and sidewalks are too narrow to meet accessibility standards. The I Street Bridge Replacement project will include construction of a new bridge upstream of the existing structure. The new bridge will cross the Sacramento River between the Sacramento Railyards and the West Sacramento Washington planned developments and provide a new bicycle, pedestrian, and automobile crossing. The existing I Street Bridge would continue to be used by the railroad. The approach viaducts to the existing I Street Bridge will be demolished, which should result in better access to the waterfront in both cities.

City of Sacramento Central City Specific Plan

The City of Sacramento's Central City Specific Plan integrates a number of planned transportation improvements and programs to further enhance the downtown grid. The future infrastructure improvements include but are not limited to:

- 10th Street, 15th Street, and L Street lane reduction from 3 lanes to 2 lanes;
- N Street conversion from an eastbound 1-Way vehicle travel to 2-Way vehicle travel;
- Pedestrian network improvements within the vicinity of the project site;
- Class II Enhanced Buffered Bike Lane along 10 Street and 15th Street, Class II Bike Lane along N Street, the existing Class II Bike Lane bisecting Capitol Park;
- Bus Stop enhancements on 15th Street

5.3 ANALYSIS OF CUMULATIVE IMPACTS

The following sections contain a discussion of the cumulative effects anticipated from implementation of the Gregory Bateson Building Renovation Project, together with related projects and planned development in downtown, for each of the environmental issue areas evaluated in this Draft EIR. The analysis conforms with Section 15130(b) of the State CEQA Guidelines, which specifies that the "discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact."

When considered in relation to other reasonable foreseeable projects, cumulative impacts to some resources would be significant and more severe than those caused by the proposed project alone.

For purposes of this EIR, the project would result in a significant cumulative effect if:

- the cumulative effects of related projects (past, current, and probable future projects) are not significant and the incremental impact of implementing the Gregory Bateson Building Renovation Project is substantial enough, when added to the cumulative effects of related projects, to result in a new cumulatively significant impact; or
- the cumulative effects of related projects (past, current, and probable future projects) are already significant and implementation of the Gregory Bateson Building Renovation Project makes a considerable contribution to the effect. The standards used herein to determine a considerable contribution are that either the impact must be substantial or must exceed an established threshold of significance.

This cumulative analysis assumes that all mitigation measures identified in Chapter 4 to mitigate project impacts are adopted and implemented, and all elements of the design build performance criteria that would minimize environmental effects are implemented. The analysis herein analyzes whether, after implementation of project-specific mitigation and performance criteria that minimize environmental effects, the residual impacts of the project would cause a cumulatively significant impact or would contribute considerably to existing/anticipated (without the

project) cumulatively significant effects. Where the project would so contribute, additional mitigation is recommended where feasible.

5.3.1 Archaeological, Historical, and Tribal Cultural Resources

Cultural resources in the project region generally consist of prehistoric sites, historic sites, historic structures, and isolated artifacts. During the 19th and 20th centuries, localized urbanization and intensive agricultural use in the region resulted in the destruction or disturbance of numerous prehistoric sites while many structures now considered to be historic were erected. From the latter half of the 20th century to the present, prehistoric and historic structures have been disturbed and destroyed. During this period, the creation and enforcement of various regulations protecting cultural resources have substantially reduced the rate and intensity of these impacts; however, even with these regulations, cultural resources are still degraded or destroyed as cumulative development in the region proceeds.

ARCHAEOLOGICAL RESOURCES

As-yet-undiscovered subsurface historic and prehistoric archaeological resources might underlie the project site. Mitigation measures are identified for Impacts 4.3-1, 4.3-2, and 4.3-3 of this EIR to reduce potential impacts on significant historic and prehistoric archaeological resources, tribal cultural resources, and human burials to a less-than-significant level. Implementing these mitigation measures would minimize the potential for the proposed project to incrementally contribute to any significant cumulative impacts on important archaeological and tribal cultural resources in the project region.

Mitigation measures applied to the project comply with State CEQA Guidelines Section 15064.5 and related provisions to the Public Resources Code. It is assumed that similar measures would be applied to other development projects in the region, as appropriate. Where federal agency approvals are required to implement projects, additional protection would be required under the National Historic Preservation Act.

Because significant historic and prehistoric archaeological resources in the project area are protected, significant cumulative impacts are not anticipated. Implementation of the project would not incrementally contribute to a significant cumulative effect on archaeological and tribal cultural resources.

HISTORIC STRUCTURES

Although there are various laws and regulations directed at the protection of historic structures, significant historic structures have been and will continue to be damaged or removed over time. Even with implementation of mitigation measures and compliance with existing policies and regulations, the proposed project, and presumably some reasonably foreseeable future projects, would contribute to an ongoing significant cumulative loss and degradation of historic structures. DGS shall implementation of Mitigation Measure 4.3-4, which would minimize the impact caused by the proposed project to a less-than-significant level by ensuring that preservation treatment objectives meet all Secretary of the Interior's Standards (SOIS) for character-defining features having primary significance status and meet as many SOIS as feasible for those character-defining features designated as having secondary significance status, and require adherence to the California State Historical Building Code to the extent feasible in instances when DGS must address human safety issues not compatible with the SOIS. This mitigation will minimize or eliminate the potential for the project to impair the qualities that qualify the Gregory Bateson Building for listing as a historical resource. Therefore, the Gregory Bateson Building would retain a strong ability to convey its historical significance and the project would not make a significant incremental contribution to the significant cumulative impact of the loss and degradation of historic structures.

5.3.2 Transportation and Circulation

As described under "Land Use" in Section 4.2 of this EIR, the Gregory Bateson Building is designated as "office" in the State's Capitol Area Plan (DGS 1997) and is designated Central Business District within the City of Sacramento's 2035 General Plan and the Central City Specific Plan, as shown on Figure 4.2-1 of this EIR. The Central Business District includes a mixture of high-, mid-, and low-rise governmental, office, residential, entertainment, and visitor serving uses built on a formal framework of streets and park spaces. The Central Business District allows 61-450 dwelling units/acre and 3.0-15.0 FAR. The intent of the City's Central City Specific Plan is to incentivize residential and non-residential growth within the Central City Specific Planning Area. The Central City Specific Plan would implement the transportation system generally as described in Sacramento Grid 3.0, which is the City's plan to integrate a number of planned transportation improvements and programs and to further enhance and facilitate increased mobility options on the downtown street grid.

The Gregory Bateson Building Renovation Project is consistent with the intent of the State's Capitol Area Plan, the City's 2035 General Plan, and the Central City Specific Plan because the project includes rehabilitating and upgrading an existing dilapidated building, the existing office building would remain office, and the project proposes to increase the number of employees (i.e. increasing density). Additionally, no modifications to the existing transportation network are proposed. Because the project is consistent with the intent of the Central City Specific Plan, the following findings identified in the City's Central City Specific Plan EIR are applicable to the project's transportation and circulation impacts.

INTERSECTION LEVEL OF SERVICE

Implementation of the Central City Specific Plan would result in most intersections continuing to operate acceptably at LOS C or better during both peak hours, with other intersections operating acceptably at LOS D or E during one or both peak hours. General Plan Policy M 1.2.2 was adopted to allow decreased levels of service (e.g., LOS F) in the urbanized Core Area of the City that supports more transportation alternatives and places residents proximate to employment, entertainment, retail and neighborhood centers and thus reduces overall vehicle miles traveled and results in environmental benefits (e.g., improved air quality and reduced GHG emissions). Based on this evaluation, the City determined that LOS F is considered acceptable during peak hours within the Core Area. As shown in Table 4.4-2, most intersections currently operate at LOS C or better under both the AM and PM peak hours, with one intersection operating at LOS D during both peak hours. Overall, the existing roadway system within the area can be characterized as operating efficiently. Motorists typically incur modest delays, do not experience sustained vehicle queues, and benefit from the coordinated traffic signal system along the primary commute corridors that connect downtown to the regional freeway system. Even if the project contribution of an additional 96 employees contributes to potential increase in delay at study area intersections, LOS F is acceptable in the Core Area during peak hours. Therefore, the project's contribution to cumulative LOS impacts would be less than significant.

VEHICLE MILES TRAVELED

Per SB 743 and more specifically, Public Resource Code Section 21155.4, the project is exempt from VMT analysis based on the following:

1) The Gregory Bateson Building is located within a Transit Priority Area, as defined in subdivision (a) of Public Resource Code Section 21099, as it is located within one-half mile of an existing major transit stop.
2) The project is undertaken to implement and is consistent with the intent of the Central City Specific Plan and the Central City Specific Plan Environmental Impact Report, which was certified on April 19, 2018.
3) The project is consistent with the general use designation, density, building intensity, and applicable policies specific for the project area identified in the 2016 Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), which identifies the project area as a higher density major employment center.

Additionally, the project does not require further project-specific analysis of VMT for the purposes of CEQA compliance per the Central City Specific Plan. With implementation of the City's Central City Specific Plan, the study area average VMT per employee is 77 percent of the countywide average, which is below the 85 percent threshold used to identify significant impacts. Since the average VMT per employee for the Central City Specific Plan is below the existing countywide average calculated by SACOG, the impact would not be cumulatively considerable. Implementation of the Central City Specific Plan, including all consistent land use development and transportation improvements, would have no significant impact on per employee VMT in the Central City Specific Plan area, and would not require further project-specific analysis of VMT for the purposes of CEQA compliance. Therefore, the project would result in a less-than-cumulatively-considerable VMT impact.

5.3.3 Utilities and Infrastructure

WATER

The City of Sacramento 2015 Urban Water Management Plan was prepared using information about planned growth included in the Sacramento 2035 General Plan. As shown in Table 4.5-5 of this EIR, there are sufficient water supplies to meet existing and future demand associated with population and development growth in the city through 2040, including during normal, single-dry, and multiple-dry years. The cumulative water supply condition is therefore less than significant. In addition, there is sufficient water supply for the project and for buildout of the city through 2040; therefore, the project would have a less-than significant cumulative impact on water supply.

It is assumed that the development of related projects served by the City's water system, and development of additional utility systems required to serve them, would be preceded by the required CEQA review. Additionally, in consultation with the City, individual projects are required to provide adequate facilities or pay their fair share of the cost for facilities needed to provide services to accommodate growth without adversely affecting current service levels. Development of the project could require construction of water delivery infrastructure improvements. However, as described in Section 4.5 "Utilities and Infrastructure," the project's water demand of 7.52 acre-feet per year (afy) would represent 0.009 percent of the City's existing available water supply and 0.005 percent of the projected water supply. Therefore, significant cumulative utilities impacts related to water delivery infrastructure would not occur and implementing the project would not result in a considerable contribution to cumulative water delivery infrastructure impacts.

WASTEWATER

Stormwater/Wastewater Conveyance Facilities

Although stormwater runoff would not increase over existing conditions, wastewater generated by the Gregory Bateson Building Renovation Project could exceed the capacity of the City's combined sewer system (CSS) during large storm events. The City has identified flooding during large storm events in the project vicinity (City of Sacramento 2018), which together create an existing adverse cumulative condition. It is assumed that the development of related projects served by the CSS, and that development of additional utility systems required to serve them, would be preceded by the required CEQA review. There is capacity for the project's wastewater flows during dry weather, and the project would include water conservation measures that would further reduce wastewater flows. Therefore, the project would not result in a considerable incremental contribution to the adverse cumulative impact.

Wastewater Treatment Facilities

Wastewater generated by the Gregory Bateson Building Renovation Project would be treated at the Sacramento Regional Wastewater Treatment Plant (Regional San WWTP). The City of Sacramento and the Sacramento Regional County Sanitation District have an operating agreement that allows the City to convey up to 60 million gallons per day (mgd) to the Regional San WWTP. When flows exceed 60 mgd, wastewater in the CSS is conveyed to the

Combined Wastewater Treatment Plant (CWTP) and Pioneer Reservoir for treatment and storage, if needed, prior to being discharged to the Sacramento River. Currently, the City conveys about 18 mgd to the Regional San WWTP, so there would be sufficient capacity to treat wastewater from the proposed project in addition to other similar projects during dry weather. However, there is currently insufficient capacity in the CSS wastewater treatment plants to treat wastewater during peak storm events. This is considered a cumulatively adverse condition. It is assumed that the development of related projects served by the Regional San WWTP, CWTP, and Pioneer Reservoir, and that development of additional utility systems required to serve them, would be preceded by the required CEQA review. Additionally, individual projects are required to provide adequate facilities or pay their fair share of the cost for facilities needed to provide services to accommodate growth without adversely affecting current service levels. Furthermore, 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 its wastewater contributions to the CSS. 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 result in a considerable incremental contribution to this cumulative adverse condition.

The related projects considered in this cumulative analysis would be located downtown and could result in increases in stormwater runoff to the CSS. Similar to the proposed project, these related projects would be required to comply with the City's requirements for demonstrating that stormwater runoff would not contribute to a cumulative impact on the CSS. In addition, the related projects would undergo separate environmental review to ensure that adequate surface drainage facilities are included as part of those projects. For these reasons, significant cumulative utilities impacts related to stormwater conveyance facilities would not occur. Because the proposed project would not result in an increase in stormwater that flows to the CSS, the project would not result in a cumulatively considerable incremental contribution to this cumulatively significant impact.

ELECTRICITY, NATURAL GAS, ENERGY EFFICIENCY

The geographic area considered for cumulative impacts related to energy use includes the service areas for the Sacramento Municipal Utility District (SMUD) and Pacific Gas and Electric Company (PG&E). These providers employ various programs and mechanisms to support provision of these services to new development; various utilities charge connection fees and recoup costs of new infrastructure through standard billings for services. The project would include reconnection to existing electric infrastructure.

Cumulative development would increase the demand for electrical and natural gas supply. However, both SMUD and PG&E are establishing or gaining access to new energy sources to serve existing and future customers. Based on existing available energy supplies, new sources, and because the Gregory Bateson Building is already served by SMUD (there is no direct natural gas use at the building), it is expected that sufficient electricity and natural gas supplies are available to support cumulative development. In addition, electricity and natural gas impacts of related projects would undergo separate environmental review to ensure that adequate electricity and natural gas supplies and infrastructure would be available. For these reasons, significant cumulative impacts related to electricity and natural gas would not occur from implementation of the related projects. The project would not result in a cumulatively considerable incremental contribution to a significant cumulative impact related to demand for electricity and natural gas.

5.3.4 Air Quality

Construction and operation of the Gregory Bateson Building Renovation Project would result in emissions of criteria air pollutants (e.g., particulate matter with an aerodynamic diameter of 10 microns or less [PM_{10}] and with an aerodynamic diameter of 2.5 microns or less [$PM_{2.5}$]) and precursors (e.g., oxides of nitrogen [NO_X] and reactive organic gases [ROG]) in Sacramento County, within the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). Sacramento County is currently in nonattainment with respect to the California

Ambient Air Quality Standards (CAAQS) and the National Ambient Air Quality Standards (NAAQS) for ozone, CAAQS for PM_{10}, and NAAQS for $PM_{2.5}$.

Ozone impacts are the result of cumulative emissions from numerous sources in the region and transport from outside the region. Ozone is formed in chemical reactions involving NO_X, ROG, and sunlight. Only the largest individual sources emit NO_X and ROG in amounts that could have a measurable effect on ambient ozone concentrations by themselves. However, when all sources throughout the region are combined, they can result in severe ozone problems. Because the region is in nonattainment for either CAAQS or NAAQS for ozone precursors (i.e., NO_X and ROG), and criteria air pollutants (PM_{10} and $PM_{2.5}$), emissions from cumulative development are considered to be cumulatively considerable.

Air districts in California in nonattainment for ozone precursors develop air quality attainment plans designed to reduce emissions of ozone precursors enough to attain the federal ozone standard by the earliest practicable date. Air quality attainment plans include a multitude of air pollution control strategies. When developing air quality attainment plans, air districts account for the emissions from all present and future development in the region by relying on city and county general plans. Because the proposed project would be consistent with the land use designation in the City of Sacramento 2035 General Plan, emissions associated with the development of the project are accounted for in SMAQMD's air quality attainment plan.

Further, project-related construction emissions would not exceed the applicable mass emission thresholds for any of the criteria air pollutants or precursors established by SMAQMD that would interfere with the region's health-based standards. Therefore, the short-term contribution of criteria air pollutants and precursors from project construction, combined with other cumulative sources of ozone precursors in the region would not be cumulatively considerable and would not contribute to adverse health impacts.

Long-term operation of the project would result in regional emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from area, energy, and mobile sources. Area-source emissions include those from the regular testing of the emergency backup generator and occasional operation during power outages, and operation of landscape maintenance equipment. Mobile source emissions, for the purposes of this analysis, include the VMT associated with the 96 additional employees. VMT per employee was estimated from the Central City Specific Plan Long-term operation-related emissions generated by the project would not exceed SMAQMD's significance thresholds for ROG, NO_X, PM_{10}, or $PM_{2.5}$ (see Table 5-2). Consequently, long-term operation of the proposed project would not contribute to an increase in regional emissions of ROG, NO_X, PM_{10}, or $PM_{2.5}$ that would conflict with adopted air quality plans or cause adverse health impacts, and therefore would not be cumulatively considerable.

Table 5-2 Summary of Cumulative Emissions of Criteria Air Pollutants and Precursors at Full Buildout (2024)

Source Type	Maximum Daily Emissions (lb/day) ROG	Maximum Daily Emissions (lb/day) NO_X	Maximum Daily Emissions (lb/day) PM_{10}	Maximum Daily Emissions (lb/day) $PM_{2.5}$
Area	7	<1	<1	<1
Mobile	6	15	2	<1
Total emissions	13	15	2	<1
Annual emissions (tons per year)			<1	<1
SMAQMD threshold of significance	65 lb/day	65 lb/day	80 lb/day and 14.6 tons/year	82 lb/day and 15 tons/year
Exceed significance threshold?	No	No	No	No

Notes: NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; ROG = reactive organic gases; SMAQMD = Sacramento Metropolitan Air Quality Management District.

Operational emissions from emergency generator is excluded from table due to <1 emissions. Total values may not add correctly due to rounding. See Appendix D for detailed input parameters and modeling results.

Source: Modeling performed by Ascent Environmental in 2019

Under Cumulative-Plus-Project conditions, all intersections would continue to operate at level of service (LOS) C or better, except Intersection 18 (W Street/16th Street/US 50 WB Off-Ramp) and Intersection 19 (X Street/15th Street/US 50 EB Off-Ramp), which would operate at LOS D during the p.m. peak hour. (See Section 4.4 "Transportation and Circulation"). Further, CO emission factors in future years are expected to be lower than current levels because of more stringent vehicle emissions standards and improvement in vehicle emissions technology. Ambient local CO concentrations under future cumulative conditions would continue to decline. Therefore, 1- and 8-hour CO concentrations for the future cumulative conditions would not be anticipated to exceed the significance thresholds of 20.0 and 9.0 parts per million, respectively. Consequently, the project would not result in cumulatively considerable incremental contribution such that a significant cumulative impact related to CO concentrations would occur.

The project would not generate significant health risks associated with toxic air contaminants because it would not expose any single receptor to a level of cancer risk that exceeds an incremental increase of 10 in one million, or to a hazard index of 1. Construction-generated emissions of diesel PM would be short term and intermittent and would not occur for an extended period of time. In addition, operation of the Gregory Bateson Building would not result in new sources of TACs. Therefore, construction and operation of the project has no impact.

Implementing the project would not result in the generation of odor sources.

5.3.5 Greenhouse Gas Emissions and Climate Change

Greenhouse gas (GHG) emissions generated by project construction and operation, discussed under Impact 4.7-1 of this EIR, are inherently cumulative. GHG emissions from one project cannot, on their own, result in changes in climatic conditions; therefore, the emissions from one project must be considered in the context of their contribution to cumulative global emissions. Both construction and operation of the project would include GHG efficiency measures consistent with all applicable State and local polices and regulations for the purpose of reducing GHG emissions and enabling achievement of the statewide reduction targets. The project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Thus, the project would not result in a considerable contribution to a significant cumulative GHG impact.

5.3.6 Energy

Implementation of the Gregory Bateson Building Renovation Project would include energy efficient design Features consistent with green building requirements for state owned buildings in Executive Order B-18-12. This performance criteria requires that the building consume 15 percent less energy than the mandatory requirements of the 2019 California Green Building Code. Measures addressing energy use reduction, energy-efficient design strategies, and renewable energy sources would be implemented to meet the Silver rating of the U.S. Green Building Council's Leadership in Energy and Environmental Design Version (LEED v4) Green Building Rating System. Additionally, the office building would have no direct use of natural gas and all electricity use would be offset by 100 percent offsite renewable energy through a contract with SMUD. Construction energy use associated with the project would also not be considered inefficient, wasteful, or unnecessary, because the energy needs for project renovations would be temporary and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Furthermore, construction equipment use and associated energy consumption would be typical of those associated with renovation projects in an urban setting. Transportation energy use associated with operation of the proposed project would also not be considered inefficient, wasteful, or unnecessary, because the project involves renovations to an existing building located in a Transit Priority Area, adjacent to an accessible Regional Transit light rail station and additional transit services.

5.3.7 Noise

Implementing the Gregory Bateson Building Renovation Project would generate noise and vibration levels above existing conditions. However, this increase would primarily occur during construction and would not result in any significant impacts related to noise or vibration and no mitigation would be required. Noise and vibration are

localized issues in that they attenuate with distance, particularly vibration. Therefore, only reasonably foreseeable future development projects in the direct vicinity of the Gregory Bateson Building Renovation Project site would have the potential to add to anticipated project-generated noise and vibration and thus result in a cumulative noise or vibration impact. The P Street Office Building Project site is approximately 75 feet north of the Gregory Bateson Building Renovation Project site and is currently under construction. Construction of the P Street Office Building Project is anticipated to be completed in 2021 and could occur simultaneously with construction of the Gregory Bateson Building Renovation Project. However, simultaneous construction would only occur for a limited duration (less than one year) and would be within the City of Sacramento Noise Control Ordinance exemption for daytime construction noise. Therefore, project-generated construction noise and vibration would not combine with other foreseeable construction activities to result in a new cumulatively considerable significant impact.

While construction noise can be controlled on-site at the point of origin, traffic noise may extend beyond a project site along existing roadways and result in significant traffic noise impacts at sensitive uses along these roadways. Operation of the Gregory Bateson Building Renovation Project would generate a minimal number of new vehicle trips (see Section 4.4, "Transportation and Circulation") and would not make a perceptible contribution to traffic noise (see Table 4.9-9). The types of standard-duty cars and trucks associated with trips during project operation would not generate perceptible groundborne vibration. The traffic noise increase by the project would be imperceptible, and therefore, would not be a significant contribution. The Gregory Bateson Building Renovation Project would not make a cumulatively considerable contribution to a significant cumulative traffic noise impact.

5.3.8 Hazards and Hazardous Materials

The Gregory Bateson Building Renovation Project and related projects would all involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction and operation. Impacts related to these activities would be less than significant related to the Gregory Bateson Building Renovation Project because the storage, use, disposal, and transport of hazardous materials are extensively regulated by various federal, State, and local agencies, and because it is assumed that those involved with the projects would implement and comply with existing hazardous materials regulations. Therefore, a significant impact related to a significant impact related to hazards and/or hazardous materials would not occur. Because these laws and regulations would also apply to each related project, this impact would be less than significant on both an individual project and cumulative basis.

5.3.9 Biological Resources

Sensitive habitats for biological resources in the vicinity of the project site and in the region have been modified over time, as land has been developed and converted to urban uses. Future projects in the region could continue to result in losses of sensitive habitats and sensitive species; however, the related plans and projects consist of infill development in the Central City consistent with the State's CAP and the City's 2035 General Plan for development in this urbanized area. Although individual projects would be required to mitigate for significant impacts on a project-by-project basis, they may result in residual impacts that combine with the existing adverse condition to create a significant cumulative condition related to special-status species and sensitive habitats.

The project site and vicinity are located in highly-urbanized downtown Sacramento. No special-status plants occur on the project site. In addition, most of the special-status wildlife species identified as having potential to occur within the vicinity of the project site (see Table 4.11-1) either do not occur on the project site or have a low potential for occurrence. However, project impacts include potentially significant impacts to nesting Swainson's hawks, other nesting raptors, other nesting native birds, bat roosts, and consistency with the City Tree Preservation Ordinance. Mitigation measures for these resources would prevent all potential adverse effects on potential nests, potential bat roosts, and City trees and would reduce impacts to less-than-significant levels (Mitigation Measure 4.11-1, 4.11-2 and 4.11-3 in Section 4.11, "Biological Resources"). As discussed in Section 4.11, "Biological Resources," the project site neither connects nor separates any significant wildlife habitat areas, and implementation of the project would not disrupt wildlife movement or use of migratory corridors. As a result of the project either resulting in no impact, or very limited impact after mitigation, on biological resources, the project would not have a considerable contribution to an adverse cumulative condition with respect to biological resources.

6 OTHER CEQA SECTIONS

6.1 GROWTH INDUCEMENT

California Environmental Quality Act (CEQA) Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an environmental impact report (EIR). Section 15126.2(d) of the State CEQA Guidelines provides the following guidance for assessing growth-inducing impacts of a project:

> Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can induce growth directly, indirectly, or both. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in any of the following:

- substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises);
- substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; and/or
- removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

Growth inducement itself is not an environmental effect but may foreseeably lead to environmental effects. If substantial growth inducement occurs, it can result in secondary environmental effects, such as increased demand for housing, demand for other community and public services and infrastructure capacity, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, conversion of agricultural and open-space land to urban uses, and other effects.

6.1.1 Capitol Area Plan EIR Analysis of Growth-Inducing Impacts

The EIR prepared for the 1997 Capitol Area Plan (CAP) previously addressed growth-inducing impacts associated with development of State facilities within the Capitol Area as envisioned in the plan. The boundary of the Capitol Area encompasses the Gregory Bateson Building, which is identified in the CAP as "office" and shown as an existing office building (DGS 1997a).

The analysis of growth inducement in the CAP EIR (DGS 1997b) concludes that implementing the plan would have the following growth-inducing effects:

- *Elimination of Obstacles to Growth*. Plan implementation would provide a policy for the State to consolidate its future office development within the Capitol Area instead of spreading the office development throughout the region. This would result in more office development in the downtown Sacramento area, possibly inducing localized growth.

- *Increased Demand on Secondary Markets*. Implementing the CAP would result in a substantial increase in the demand for support businesses and services in the downtown area; therefore, the plan would be a significant economic catalyst for downtown Sacramento.
- *Land Use Intensification*. Full buildout of State facilities consistent with the CAP may result in increased pressure to intensify land uses/development on many of the privately owned parcels within the Capitol Area.

6.1.2 Growth-Inducing Impacts of the Project

As explained in Chapter 3, "Project Description," the Gregory Bateson Building, constructed in 1981, is a functioning State office building. The primary tenants are the California Health and Human Services Agency, the Department of State Hospitals, and the Department of Developmental Services and there are approximately 960 employees working in the building. All current occupants would permanently move to the new State office building that is under construction at 1215 O Street, also in downtown Sacramento. After the Bateson Building is vacated and the renovation is complete, the building would be re-occupied with staff from several divisions of the California Natural Resources Agency such as California Department of Water Resources, California Department of Parks and Recreation, California Department of Forestry and Fire Protection, California Department of Fish and Wildlife, California Department of Conservation, and California Conservation Corps. Per the State's Ten Year Sequencing Plan (2018), this would support the State's goal to relocate employees from other State buildings that are in poor condition or that are in commercial space where the State may exercise the option to terminate a lease. Although it is anticipated that the number of occupants in the building would remain at 960, this EIR evaluates the potential for a 10 percent increase in employees. This would result in an increase of 96 employees for a total of 1,056 employees in the renovated Bateson Building.

GROWTH-INDUCING EFFECTS OF CONSTRUCTION

The construction labor force would fluctuate depending on the phase of work. However, it is estimated that the building renovations would require an estimated 75 to 95 workers. According to the latest labor data available from EDD (2019), 61,900 residents in Sacramento-Roseville-Arden Arcade Metropolitan Statistical Area (MSA) are employed in the construction industry. Based on applying the March 2019 unemployment rate of 4.3 percent for Sacramento-Roseville-Arden Arcade Metropolitan Statistical Area MSA to the construction sector, approximately 2,660 construction employees could be available in the region to work on the proposed project. This existing number of residents who are in the construction labor force (labor force is defined as all of those people that are employed or are looking for employment) within commute distance (e.g., Yolo, Placer, and El Dorado counties), would be sufficient to meet the demand for construction workers that would be generated by the project. Construction jobs supporting the proposed project would be temporary and it is the nature of construction work that construction contractors bid and work on projects based on their availability and need for work, and in regions that are accessible to their work force. As existing construction projects near completion, contractors may seek out new construction projects to maintain employment for the same workers. Although it is possible that some construction workers could move to the city or the region as a result of the proposed project and the cumulative projects, the existing labor force is anticipated to be sufficient to meet construction employment needs for the renovation. Furthermore, the Sacramento 2035 General Plan anticipates continued growth in jobs and includes policies, such as Policy LU 2.8.6, that promote the designation of sufficient land and development potential for housing and employment opportunities for a range of incomes and household types throughout the city, and encourages a balance between job type, workforce, and housing development. For these reasons, substantial population growth or increases in housing demand in the region as a result of these construction jobs is not anticipated. Therefore, the project would not be expected to directly induce population growth by bringing substantial numbers of construction jobs to the area, or to result in associated increases in demand for housing or goods and services.

GROWTH-INDUCING EFFECTS OF OPERATION

The Gregory Bateson Building is located within downtown Sacramento, which has an established roadway network and utilities infrastructure. The roadways providing access to and through downtown Sacramento would not be altered, and no new roadways would be constructed. The building is connected to and served by existing City of Sacramento water supply pipelines and the City's combined sewer system (CSS). As documented in Section, 4.5, "Utilities," the renovated office building would increase the efficiency of water use in the building. Therefore, with a modest increase of employees, the demand for water at the building would not markedly change. There is sufficient water supply and conveyance, CSS conveyance, and wastewater treatment capacity to continue to serve the building. The renovation would not require new water entitlements, nor expanded, upgraded, or new water or wastewater infrastructure beyond the new fire water connection. The State's Central Plant would continue to provide heating and cooling; it also has sufficient capacity and conveyance to continue to serve this building. The project would therefore not induce growth through extending roadway or utility infrastructure to new areas or from increasing infrastructure capacity.

As stated in Chapter 3, "Project Description," while it is anticipated that the number of occupants in the building would remain at 960, a conservative estimate of a 10 percent increase is assumed for this EIR. This would result in an increase of 96 employees for a total of 1,056 employees in the renovated Bateson Building. An increase of 96 employees would not be significant compared to citywide employment of 221,362 jobs in 2017 (US Census 2013-2017), adding approximately 0.04 percent to the 2017 citywide employment. This increase in jobs in the downtown Sacramento area could be filled by local residents and these jobs are consistent with State and local plans for job growth. The project would not generate new employment that would induce population growth such that there would be additional demand for housing that could not be met by existing supply or by planned housing development. In addition, the contribution of 96 new jobs in Sacramento, when viewed in conjunction with current and future housing projects (see Chapter 5, "Cumulative Impacts"), overall housing opportunities in Sacramento should increase over time with the increased housing demand. Also, the City's 2035 General Plan designates the project site "Central Business District," which contemplates relatively high intensity office uses with a floor area ratio of up to 15.0. The ongoing office use of the Bateson Building would be consistent with Capitol Area Plan and City General Plan assumptions for employment generation and, subsequently, growth projections. Therefore, although the proposed project could indirectly induce growth through increasing employment opportunities, the level of growth is anticipated in both local and regional plans, and would not require development of housing or other facilities that is not identified in these plans.

6.2 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

The State CEQA Guidelines Section 15126.2(b) requires EIRs to include a discussion of the significant environmental effects that cannot be avoided if the proposed project is implemented. As documented throughout Chapter 4, "Environmental Impacts and Mitigation Measures," and Chapter 5, "Cumulative Impacts," of this Draft EIR, after implementation of the recommended mitigation measures, all impacts associated with the Gregory Bateson Building Renovation Project would be reduced to a less-than-significant level. The project would not result in any significant and unavoidable adverse impacts.

6.3 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

The State CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the project. Specifically, the State CEQA Guidelines section 15126.2(c) states:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generation to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The project would result in the irreversible and irretrievable commitment of energy and material resources during renovation and operation, including the following:

- construction materials, including such resources as soil, rocks, wood, concrete, glass, and steel;
- water supply for project construction and operation; and
- energy expended in the form of electricity, natural gas, diesel fuel, gasoline, and oil for equipment and transportation vehicles that would be needed for project construction and operation.

These nonrenewable resources would represent only a modest portion of the resources available in the region and would not affect the availability of these resources for other needs within the region.

Building renovation activities would not result in inefficient use of energy or natural resources. Building materials would be reused or recycled as feasible. During the renovation, contractors would use best available engineering techniques, construction and design practices, and equipment operating procedures.

Project operation would not result in substantial long-term consumption of energy and natural resources. In accordance with State policy, the renovated office building would be zero net energy and would not be directly served by natural gas. The project would exceed the 2019 Building Energy Efficiency Standards and would meet or exceed Leadership in Energy and Environmental Design (LEED) version 4 (v4) Silver certification. Energy Star office equipment, energy efficient computer monitors, and LED (light-emitting diode) lighting would be used throughout the office building. Electrical metering and control systems would be installed to control systems and monitor electrical loads on a per system basis (e.g., lighting, mechanical) and on a per floor basis. Sacramento Municipal Utility District electrical service would be from 100 percent renewable resources. In addition, the office building would include water conservation and reuse measures that exceed 2019 Title 24 water efficiency requirements. All plumbing fixtures in the building would be low-flow/high-efficiency fixtures. Public transit would continue to be available for use by employees because building is located two blocks south of a Sacramento Regional Transit light rail station on O Street that serves the Green, Gold, and Blue lines. In addition, there are bus stops for different routes and transit providers (e.g., Sacramento Regional Transit, El Dorado Transit) located within one-quarter mile of the building, including service on 9th Street at the front of the Bateson Building.

7 ALTERNATIVES

7.1 INTRODUCTION

The California Code of Regulations (CCR) Section 15126.6(a) (State CEQA Guidelines) requires EIRs to describe "… a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a range of potentially feasible alternatives that will avoid or substantially lessen the significant adverse impacts of a project, and foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason." This section of the State CEQA Guidelines also provides guidance regarding what the alternatives analysis should consider. Subsection (b) further states the purpose of the alternatives analysis is as follows:

> Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code [PRC] Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

The State CEQA Guidelines require that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but in less detail than the significant effects of the project as proposed (CCR Section 15126.6[d]).

The State CEQA Guidelines further require that the "no project" alternative be considered (CCR Section 15126.6[e]). The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. If the no project alternative is the environmentally superior alternative, CEQA requires that the EIR "…shall also identify an environmentally superior alternative among the other alternatives." (CCR Section 15126[e][2]).

In defining "feasibility" (e.g., "… feasibly attain most of the basic objectives of the project …"), CCR Section 15126.6(f) (1) states, in part:

> Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to consider the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency's decision-making body, here the California Department of General Services (DGS). (See PRC Sections 21081.5, 21081[a] [3].)

7.2 CONSIDERATIONS FOR SELECTION OF ALTERNATIVES

7.2.1 Attainment of Project Objectives

As described above, one factor that must be considered in selection of alternatives is the ability of a specific alternative to attain most of the basic objectives of the project (CCR Section 15126.6[a]). Chapter 3, "Project Description," articulates the following project objectives:

- extend the useful life and viability of the building by approximately 50 years;
- improve tenant safety and comfort;
- upgrade all mechanical, electrical, and plumbing infrastructure systems;
- upgrade fire and life safety systems;
- upgrade elevators;
- remove hazardous materials;
- meet current Americans with Disabilities Act (ADA) standards;
- halt the damaging water intrusion;
- establish a new office space plan, allowing greater flexibility and functionality;
- improve energy efficiency, reduce energy use, maintenance costs, and operations costs; and
- complete the renovations in such a manner that retains the overall historic nature of the resource.

7.2.2 Environmental Impacts of the Gregory Bateson Building Renovation Project

Sections 4.3 through 4.11 of this Draft EIR address the environmental impacts of implementation of the proposed Gregory Bateson Building Renovation Project. Potentially feasible alternatives were developed with consideration of avoiding or lessening the significant, and potentially significant, adverse impacts of the project, as identified in Chapter 3 of this Draft EIR and summarized below. If an environmental issue area analyzed in this Draft EIR is not addressed below, it is because no significant impacts were identified for that issue area. No significant and unavoidable environmental impacts were identified.

- Archaeological, Historical, and Tribal Cultural Resources: The project site has been disturbed during past development, reducing the potential for sub-surface cultural resources to be present. However, contact with previously undisturbed native soils during construction could result in damage or destruction of currently unrecorded subsurface historic and pre-historic archeological resources, tribal cultural resources, and human remains. Such contact would be most likely during trenching for utility connections. Mitigation Measures 4.3-1, 4.3-2, and 4.3-3 collectively require stopping work in the vicinity of any area where evidence of historic or pre-historic archeological resources, tribal cultural resources, or human remains are encountered; properly evaluating, documenting, and protecting any finds; and transferring any archeological material or remains removed from the site to an appropriate organization or individual. Implementation of these measures would reduce this impact to a less-than-significant level.

  With regard to historic architectural resources, the Gregory Bateson Building has been previously identified as eligible for the National Register of Historic Places. Based on the past assessments, it is assumed in this Draft EIR that the building qualifies as historic resources under CEQA. Renovation of the building would result in substantial adverse changes to this historic resource, resulting in a significant impact. Implementation of Mitigation Measure 4.3-4 would minimize the impact caused by the proposed project to a less-than-significant level by ensuring that preservation treatment objectives meet all Secretary of the Interior's Standards (SOIS) for character-defining features having primary significance status and meet as many SOIS as feasible for those

character-defining features designated as having secondary significance status, and require adherence to the California State Historical Building Code to the extent feasible in instances when DGS must address human safety issues not compatible with the SOIS. This mitigation will minimize or eliminate the potential for the project to impair the qualities that qualify the Gregory Bateson Building for listing as a historical resource and this impact would be **less than significant**.

- **Biological Resources:** The project could potentially require pruning or removal of trees, including City street trees. Although unlikely, project implementation could result in indirect disturbance to nesting Swainson's hawk, other nesting raptors, and other native nesting birds, if present within the City street trees adjacent to the project site. Project implementation could also result in inadvertent disturbance to roosts or maternal colonies of common bat species or inadvertent exclusion of these bats, if present within the exterior or interior of the building. Implementation of Mitigation Measures 4.11-1, 4.11-2, and 4.11-3 would reduce these impacts to a **less-than-significant** level because indirect disturbance to nesting raptors would be avoided; bat roosts and maternity colonies would be identified and bats would be excluded during construction activities; and City street trees would be protected or replaced.

7.3 ALTERNATIVES CONSIDERED BUT NOT EVALUATED FURTHER

As described above, State CEQA Guidelines Section 15126.6(c) provides that the range of potential alternatives for the project shall include those that could feasibly accomplish most of the basic objectives of the project, and could avoid or substantially lessen one or more of the significant effects. Alternatives that fail to meet the fundamental project purpose need not be addressed in detail in an EIR. (In re *Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165-1167.)

In determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by lead agency decision-maker(s). (See Pub. Resources Code, § 21081(a)(3).) At the time of action on the project, the decision-maker(s) may consider evidence beyond that found in this EIR in addressing such determinations. The decision-maker(s), for example, may conclude that a particular alternative is infeasible (i.e., undesirable) from a policy standpoint, and may reject an alternative on that basis provided that the decision-maker(s) adopts a finding, supported by substantial evidence, to that effect, and provided that such a finding reflects a reasonable balancing of the relevant economic, environmental, social, and other considerations supported by substantial evidence. (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401, 417; *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 998.)

The EIR should also identify any alternatives that were considered by the lead agency, but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination.

The following alternative was considered by DGS but is not evaluated further in this Draft EIR.

7.3.1 Building Demolition and Reconstruction

This alternative considers full demolition of the existing Gregory Bateson Building and reconstruction of a new state office building in the same location in downtown Sacramento, near transit. The new building would be of a similar size and would address the building code and fire-life safety improvements needed for tenant safety and comfort. DGS strives to achieve the highest and best use of State-owned property, including the Gregory Bateson Building, and demolition of the building is not necessary to complete building code and fire-life safety upgrades. Demolition and reconstruction would therefore represent unnecessary costs to the State. In addition, demolition of the building would result in the loss of a historic building, which would be a significant and unavoidable historic resource impact that would not occur in the proposed renovation project. Furthermore, the proposed building renovation would not result in significant environmental impacts; demolition and reconstruction would therefore not avoid significant

environmental impacts. Rather, demolition and construction would likely increase the temporary construction impacts related to transportation, noise, air emissions, GHG emissions, and energy use. For these reasons, DGS is not considering full building demolition and reconstruction and this alternative is not evaluated in detail in this EIR.

7.4 ALTERNATIVES SELECTED FOR DETAILED ANALYSIS

The following alternatives evaluated in this Draft EIR.

- Alternative 1: No Project–No Development Alternative assumes no renovation of the Gregory Bateson Building and continued operation of the building in its current condition.
- Alternative 2: Restore Historic Features of the Gregory Bateson Building assumes that the historic features of the Gregory Bateson Building would be restored to the Secretary of the Interior Standards and Guidelines for the Restoration of Historic Buildings. The building restoration would be similar to the proposed project, but where project features conflict with historic features, this alternative would only implement building upgrades that could maintain or restore the historic characteristics of the building.

Further details on these alternatives, and an evaluation of environmental effects relative to the proposed project, are provided below.

7.4.1 Alternative 1: No Project–No Development Alternative

Under Alternative 1, the No Project–No Development Alternative, no actions would be taken by DGS and the Bateson Building would remain unchanged from current conditions. The No Project – No Development Alternative would not meet the project objectives. However, as required by CEQA, the No Project – No Development Alternative is evaluated in this Draft EIR.

Although it is acknowledged that with the No Project–No Development Alternative, there would be no discretionary action by the State, and thus no impact, for purposes of comparison with the other action alternatives, conclusions for each technical area are characterized as "impacts" that are greater, similar, or less, to describe conditions that are worse than, similar to, or better than those of the proposed project.

ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

The No Project–No Development Alternative would not involve any building renovation activities, thereby avoiding impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded pre-historic or historic archeological resources, tribal cultural resources, human remains, or historic architectural resources. In comparison, the proposed project would result in limited ground disturbance that could cause potentially significant impacts related to disturbance of undiscovered/unrecorded subsurface archaeological resources, tribal cultural resources, and human remains. In addition, the proposed project's renovation activities would impact historic characteristics of the Bateson Building, resulting in a significant historic resource impact. The project's cultural resource impacts would be reduced to less-than-significant levels after mitigation. However, because the No Project–No Development Alternative would not include any ground disturbance, it has a lesser potential to result in the disturbance of as-yet undiscovered subsurface archaeological resources and/or human remains. Further, the No Project-No Development Alternative would avoid disturbance to the historic structure, avoiding adverse impacts to historic structures. Therefore, the cultural resource impacts under the No Project–No Development Alternative would be **less** than the proposed project.

TRANSPORATION AND CIRCULATION

Under the No Project–No Development Alternative no vehicular trips would be generated related to construction, there would be no change to existing vehicular trips, and the project's location would remain in a transit priority zone. In comparison, the proposed project would add a small number of new trips to the roadway network in the vicinity,

but would not cause degradation of LOS nor result in vehicle miles traveled that conflict with the Central City Specific Plan EIR. The project would result in small increases in freeway off-ramp queues, and transit, bicycle, and pedestrian trips, but existing facilities are more than adequate to accommodate the small increases. Construction of the project would temporarily disrupt parking and pedestrian and bike access in the vicinity of the project site, but these localized and temporary impacts would be minimized through implementation of a Construction Traffic Management Plan in accordance with City of Sacramento Code. All transportation and circulation impacts would be less than significant. Because the project would not result in significant transportation impacts, the No Project– No Development Alternative would not avoid any such impacts. However, because it would result in no additional trips and no transportation impacts, the No Project-No Development Alternative would result in transportation and circulation impacts that are **less** than the proposed project.

UTILITIES AND INFRASTRUCTURE

The No Project–No Development Alternative would not result in additional demand for water, wastewater treatment, stormwater conveyance, electricity, or natural gas; nor would it result in the need for new infrastructure. By comparison, the proposed project would result in less-than-significant impacts to utility demand and infrastructure. Therefore, the No Project–No Development Alternative would not avoid any significant impacts. However, because the No Project–No Development Alternative would have no construction and no additional employees, it would have no new demand for potable water, stormwater/surface-runoff management, wastewater treatment, and wastewater conveyance infrastructure. The No Project-No Development Alternative would result in **less** of an impact than the proposed project; however, it also precludes renovation of the building to increase energy and water efficiency.

AIR QUALITY

Because the No Project–No Development Alternative would involve no construction disturbance and no new vehicular trip generation, this alternative would not generate construction- or operations-related air emissions. By comparison, the proposed project would result in less-than-significant construction and operational emissions related to renovation activities and new employee vehicular vehicle trip generation. Implementation of the No Project–No Development Alternative would not result in these air quality impact; therefore, this alternative would result in **less** of an impact than the proposed project.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Because the No Project–No Development Alternative would involve no construction disturbances and no new vehicular trip generation, this alternative would not generate new construction- or operations-related greenhouse gas (GHG) emissions. By comparison, the project would result in less-than-significant construction and operational GHG emissions because both construction and operation of the renovated building would include GHG efficiency measures (e.g., proximity to transit, Zero Net Energy), consistent with State and local polices and regulations for the purpose of reducing GHG emissions and enabling achievement of the statewide reduction targets. The No Project–No Development Alternative would not result any new construction-related GHG emissions or transportation-related GHG-emissions, which would result in **less** of an impact than the proposed project with regard to climate change. However, the No Project–No Development Alternative also precludes the benefits of renovating the building to be a GHG-emissions efficient building, resulting in **greater** GHG emission in the long term.

ENERGY

Under the No Project–No Development Alternative no renovation activities would occur and there would be no change in employees in the building. Therefore, there would be no change in energy use. Although no energy would be temporarily utilized for renovation activities, this alternative would not upgrade the building with energy efficiency features. The proposed project would not result in wasteful, inefficient and unnecessary consumption of energy during construction, and the project would improve overall building energy efficiency. In comparison to the proposed

project, the No Project-No Development Alternative would avoid all energy use related to construction, resulting in **less** temporary energy use. However, this alternative would not realize energy savings from building improvements and would therefore result in **greater** energy over the long term.

NOISE

Under the No Project–No Development Alternative no renovation activities would occur and no additional traffic would be generated. Therefore, there would be no increase in potential noise conflicts under the No Project-No Development Alternative. By comparison, the proposed project would result in less-than-significant construction-generated noise and vibration levels and less-than-significant operation-related traffic noise. Although the project would not have significant noise impacts, the No Project–No Development Alternative would have no noise from renovation activities or additional employees; therefore, this alternative would result in **less** noise than the proposed project.

HAZARDS AND HAZARDOUS MATERIALS

The existing building has identified hazardous materials such as asbestos and lead-based paint that would be left in place in the building under the No Project-No Development Alternative. In contrast, renovation activities associated with the project could result in the exposure of construction workers and the public to hazardous material identified in the existing building. Contractors and the State are required to comply with federal, State, and local regulations intended to protect workers and the public from exposure to hazardous or contaminated materials and to ensure the appropriate remediation and disposal of these materials. Compliance with these regulations would prevent the project from resulting in a significant risk to construction workers or the public. Construction and operation of the project would also involve the storage, use, and transport of hazardous materials; however, such use would be done in compliance with federal, State, and local regulations. Although the proposed project would not result in any significant impacts related to hazardous materials and public health, the No Project- No Development Alternative results no disturbance of existing hazardous materials or use of hazardous materials. Therefore, the No Project-No Development Alternative would result in **less** of an impact than the proposed project with regard to hazards and hazardous materials. However, the No Project–No Development Alternative would also foreclose the opportunity to appropriately remediate and dispose of hazardous materials in the existing building.

BIOLOGICAL RESOURCES

The No Project–No Development Alternative would not include any renovation activities and would thus not disturb any existing on-site biological resources. However, the project site is currently developed with urban uses and lacks sensitive species or their habitat. The only potential project impacts would be potential disturbance of nesting raptors, bat roosts, or City trees which would be mitigated to avoid disturbance to these resources, resulting in less-than-significant impacts. Although the project site is a developed urban location and the proposed project would not result in any significant biological resources impacts after mitigation, the No Project- No Development Alternative would avoid disturbance to the building and project site, and would therefore result in **less** biological resource impacts than the proposed project.

7.4.2 Alternative 2: Full Historic Restoration Alternative

Alternative 2, the Full Historic Restoration Alternative, assumes that the historic features of the Gregory Bateson Building would be restored to the Secretary of the Interior Standards and Guidelines for the Restoration of Historic Buildings. The building restoration would be similar to the proposed project, but where project features conflict with historic features, this alternative would only implement building upgrades that could maintain or restore the historic characteristics of the building. Alternative 2 would not support any additional employees in the building.

ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

Alternative 2 would involve similar ground disturbance as the proposed project and would have the same potential to result in the destruction, or alteration of any known or as-yet-undiscovered/unrecorded pre-historic or historic archeological resources, tribal cultural resources, and human remains. These impacts would be reduced to less-than-significant levels through mitigation under either the proposed project or Alternative 2. However, Alternative 2 would fully restore the historic characteristics of the Gregory Bateson Building, avoiding the project's significant but mitigable historic structure impact. Therefore, the cultural resource impacts under the No Project–No Development Alternative would be **less** than the proposed project.

TRANSPORATION AND CIRCULATION

Alternative 2 would generate similar construction-related vehicular trips for restoration activities, but would not support additional employees and would result in no change to operational vehicular trips or transit. In comparison, operation of the proposed project would add a small number of new trips to the roadway network in the vicinity, which would result in small increases in freeway off-ramp queues, and transit, bicycle, and pedestrian trips. The existing transportation facilities are more than adequate to accommodate the proposed project's small increases and the project would support goals for vehicle miles traveled in the region. In comparison, Alternative 2 would not involve additional operational vehicular trips and would therefore avoid the project's less-than-significant operational transportation impacts. Furthermore, construction of the project or Alternative 2 would temporarily disrupt parking and pedestrian and bike access in the vicinity of the project site, but these localized and temporary impacts would be minimized through implementation of a Construction Traffic Management Plan in accordance with City of Sacramento Code. Because Alternative 2 would have similar construction-related transportation impacts and would avoid the project's less-than-significant operation-related transportation impacts, it would result in **less** transportation and circulation impacts than the proposed project.

UTILITIES AND INFRASTRUCTURE

Alternative 2 would reduce the demand for water, wastewater treatment, stormwater conveyance, electricity, or natural gas; it would result in a similar need for new infrastructure. Although the proposed project would result in less-than-significant impacts to utility demand and infrastructure, Alternative 2 would not introduce new employees to the building and would implement similar water efficiency features in the building. Therefore, Alternative 2 would have no new demand for potable water, stormwater/surface-runoff management, wastewater treatment, and wastewater conveyance infrastructure, and the proposed efficiency measures could potentially reduce existing demand. Therefore, Alternative 2 would result in **less** impact on utilities than the proposed project.

AIR QUALITY

Because the Alternative 2 would involve similar construction disturbances, the construction-related air emissions would be similar to the proposed project's less-than-significant emissions. However, because Alternative 2 would not include additional employees and would not result in new vehicular trip generation, this alternative would avoid the proposed project's less-than-significant operational air emissions related to new vehicular vehicle trip generation. Therefore, Alternative 2 would result in **less** impacts to air quality than the proposed project.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Because the Alternative 2 would involve similar construction disturbances and would implement similar GHG efficiency measures, the construction-related air emissions would be similar to the proposed project's less-than-significant GHG emissions. However, because Alternative 2 would not include additional employees, would not result in new vehicular trip generation, and would implement similar energy efficiency measures, this alternative would

avoid the project's less-than-significant operations-related GHG emissions, resulting in **less** GHG emissions and impact to climate change than the proposed project.

ENERGY

Alternative 2 would implement similar energy use during construction and similar energy efficiency features in the building as the proposed project. Neither the proposed project nor Alternative 2 would result in wasteful, inefficient and unnecessary consumption of energy during construction or operation. However, Alternative 2 would result in **less** energy use because it would not include additional employees or additional operational vehicular trips.

NOISE

Because the Alternative 2 would involve similar construction disturbances, the construction-related noise would be similar to the proposed project's less-than-significant construction noise impact. However, because Alternative 2 would not include additional employees and would not result in new vehicular trip generation, this alternative would not result in operations-related noise, resulting the project's less-than-significant operational noise impact. Alternative 2 would result in **less** noise than the proposed project.

HAZARDS AND HAZARDOUS MATERIALS

The existing building has identified hazardous materials such as asbestos and lead-based paint that would be abated in compliance with federal, State, and local regulations under either the proposed project or Alternative 2. In addition, under either the proposed project or Alternative 2, construction and operation would involve the storage, use, and transport of hazardous materials; however, such use would be done in compliance with federal, State, and local regulations. Compliance with regulations would prevent the project or Alternative 2 from resulting in a significant risk to construction workers or the public. Therefore, Alternative 2 would result in **similar** hazardous materials impacts as the proposed project.

BIOLOGICAL RESOURCES

Alternative 2 would renovate the same building and affect the same project site as the proposed project. The project site is currently developed with urban uses and lacks sensitive species or their habitat. As with the proposed project, the only potential project impacts would be potential disturbance of nesting raptors, bat roosts, or City street trees, which would be mitigated to avoid disturbance to these resources, resulting in less-than-significant impacts. The Full Historic Restoration Alternative would have **similar** biological resource impacts as the proposed project.

7.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Because the No Project–No Development Alternative (described above in Section 7.4.1) would avoid all adverse impacts resulting from construction and operation of the Gregory Bateson Building Renovation Project analyzed in Chapter 4, it is the environmentally superior alternative. However, the No Project–No Development Alternative would not meet the objectives the project as presented above in Section 7.2.

When the environmentally superior alternative is the No Project Alternative, the State CEQA Guidelines (Section 15126[d][2]) require selection of an environmentally superior alternative from among the other action alternatives evaluated. As illustrated in Table 7-1, below, the Full Historic Restoration Alternative would be environmentally superior action alternative because it would avoid impacts to the character defining features of the historic building and would reduce operational impacts because there would be no additional employees and no additional vehicular trips. However, full historic restoration under Alternative 2 would hinder DGS' ability to meet the project objectives, which are to implement fire-life safety improvements, ADA upgrades, infrastructure upgrades, and hazardous material removal, because preservation and restoration of the historic elements of the building would be prioritized

over other building improvements. It is anticipated that this would result in various building code and fire and life safety measures being infeasible to implement. Therefore, Alternative 2 would not serve the safety and comfort of State employees with an up-to-code building.

Table 7-1 Summary of Environmental Effects of the Alternatives Relative to the Proposed Project

Environmental Topic	Proposed Project	Alternative 1: No Project – No Action Alternative	Alternative 2: Full Historic Restoration Alternative
Archaeological, Historical, and Tribal Cultural Resources	LTS with mitigation	Less	Less
Transportation and Circulation	LTS	Less	Less
Utilities and Infrastructure	LTS	Less	Less
Air Quality	LTS	Less	Less
Greenhouse Gas Emissions and Climate Change	LTS	Construction-Less Operation-Greater	Less
Energy	LTS	Construction-Less Operation-Greater	Less
Noise	LTS	Less	Less
Hazards and Hazardous Materials	LTS	Less	Similar
Biological Resources	LTS with mitigation	Less	Similar

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Chapter 7, Alternatives

No references were used in this chapter.

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